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Environmental Protection

PESTICIDE REGISTRATION AND EVALUATION COMMITTEE (PREC) Meeting Minutes – January 16, 2026

Committee Members/Alternates in Attendance:

Stan Armstrong – California Air Resources Board (CARB)
Elizabeth Marder – Department of Public Health (CDPH)
Fabiola Estrada, US EPA Region 9
Fatemeh Ganjisaffar, Kevi Mace (Alternate) – California Department of Food and
Agriculture (CDFA)
Garrett Keating – Department of Industrial Relations (DIR)
Kathleen Boyle – Structural Pest Control Board (SPCB)
Katie Southerland-Ashley – Office of Environmental Health Hazard Assessment
(OEHHA)
Kristen Pidcock – CalRecycle
Mai Ngo – Department of Toxic Substances Control (DTSC)
Matt Hengel – UCD IR-4 Program and Dept of EcoToxicology
Nan Singhasemanon – Department of Pesticide Regulation (DPR)
Ryan Bourbour – Department of Fish and Wildlife (DFW)
Stephen Scheer – California Agricultural Commissioners and Sealers Association (CACASA)
Wendy Linck, David Fairman & Jonathan Williams (Alternates) – State Water Resources Control
Board (SWRCB)

Visitors in Attendance:

Note: Only attendees who identified themselves using their full name are listed below

Abby Taylor-Silva, Kahn, Soares & Conway, LLP
Ana Sanchez, Gowan
Ann Grottveit, Kahn, Soares & Conway, LLP
Anne Katten, California Rural Legal Assistance Foundation
Ben Sacher, Syngenta
Cassandra Juliet Perez
Chris deNijs, Nevada County Ag
Christina Wilkinson, Scientific & Regulatory Consultants, Inc.
Emily Marquez, Pesticide Action Network
Eric Stein - Western Plant Health
Isabella Quinonez, California Farm Bureau
James Nakashima, Office of Environmental Hazard & Health Assessment
Jasmine Ponce, Syntech Research
Jeremiah Wilson, Compliance Services International
Jimmy Hook, Kings County Ag
Karen Da Silva, Corteva
Kathleen Kilpatrick, Safe Ag, Safe School

Margaret Reeves, Pesticide Action Network
Marlene De La O, California Environmental Protection Agency
Noah Beyeler, Santa Barbara County Ag
Sarah Aird, Californians for Pesticide Reform
Savannah Gosselin, Kahn, Soares & Conway, LLP
Tammy Qualls, Qualls Environmental Consulting
Vicki Ghaffarzadeh, Valent
Renee Pinell, Western Plant Health

DPR Staff in Attendance:

Aisha Iqbal – Pesticide Registration Branch
Ajay Kumar – Pesticide Registration Branch
Andrew Turcotte – Pesticide Registration Branch
Anna Maddison – Pesticide Registration Branch
Brandon Brown – Human Health Assessment Branch
Brian Gress – Integrated Pest Management Branch
Christine Herrera – Worker Health and Safety Branch
Chunbo Zhang – Human Health Assessment Branch
David Mauss – Pesticide Programs Division
Denia Troxell – DPR Environmental Justice Advisory Committee
Eric Kwok – Human Health Assessment Branch
Hemanth Cherukury – Human Health Assessment Branch
Jeannie Martin – Pesticide Enforcement Branch
Jill Townzen – Pesticide Evaluation Branch
JT Teerlink – DPR Deputy Director, Pesticide Programs Division
Lauren Timmons – Pesticide Registration Branch
Laurie Brajkovich – Pesticide Programs Division
Maziar Kandelous – Environmental Monitoring Branch
Natalie Jarrell – Pesticide Registration Branch
Robert Sheffer – Pesticide Registration Branch
Dr. Sapna E. Thottathil – DPR Deputy Director, Pesticide Programs Division
Scott Tiscione – Human Health Assessment Branch
Vincent Aguirre – Environmental Monitoring Branch

1. Introductions and Committee Business – Nan Singhasemanon, Chair, DPR

- a. DPR and OEHHA joint new regulations that restrict the use of the fumigant 1,3-D to address cancer risks to occupational bystanders, including farmworkers. The new regulations establish buffer zones and require ongoing evaluation of potential exposure risks. The regulations build on recent protections for residential bystanders that went into effect in January 2024.
- b. New requirements for pesticide applications near schoolsites to implement Assembly Bill 1864 (2024). For applications within ¼ mile of a schoolsite the regulations now

require separate site identification numbers for pesticide use reporting along with the inclusion of application method details in permits and reports. The definition of a “schoolsite” will expand to include private schools (K–12) serving six or more students on December 31, 2026.

- c. DPR released an update on actions to continuously evaluate pesticides and mitigate risks to health and the environment. This update highlights progress to date, including 19 actions taken in the past 6 months by the department to evaluate and mitigate risks associated with 22 pesticides.

2. New DPR Committees – Denia Troxell (DPR Executive Branch), Laurie Brajkovich (Pesticide Programs Division), and Brian Gress (Integrated Pest Management Branch)

Denia Troxell with DPR’s Office of Environmental Justice gave a presentation on the Environmental Justice Advisory Committee (EJAC).

Environmental justice is fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. The passage of Assembly Bill 652 which was signed into law in 2023, directed DPR to establish the EJAC, an advisory body with the goal of developing prioritized recommendations to DPR on ways to integrate environmental justice considerations into DPR’s programs and decision making. The committee can include up to 11 members with required representation of environmental justice leaders from rural and urban pesticide impacted communities, a farmworker advocate, and representation from Native American, tribal or indigenous groups. The EJAC committee members were appointed by the DPR Director in August 2025.

EJAC meets twice per year at a publicly noticed meeting time and location. One of those meetings must be held in an area of high pesticide use. Meetings are also hybrid, allowing for both in-person and remote participation, and access to language interpretation. The committee held its inaugural meeting in December 2025. The first meeting focused on orientation, scope clarification, and early charter development. In subsequent meetings, the committee will finalize and adopt the committee charter, establish priority focus areas, and begin developing prioritized recommendations. There is more information about the EJAC committee, on DPR’s [EJAC website](#) or email EJACinfo@cdpr.ca.gov.

Laurie Brajkovich with DPR’s Pesticide Programs Division talked about DPR’s new Scientific Prioritization and Review Committee, or SPARC.

SPARC is an external scientific advisory committee that will advise DPR on prioritizing actions associated with continuous evaluation and mitigation including initiating human health and environmental risk assessments, mitigation, and alternatives assessment. SPARC will include up to 15 external members with scientific and practitioner expertise. The committee member application process closed in December and DPR is currently reviewing applications.

SPARC will serve in advisory capacity to provide input on identification of data gaps, scope of scientific assessment, and feasibility of alternatives. They will also provide science-based recommendations on relative priority of potential continuous evaluation or mitigation actions and they will help identify where early investments and alternatives may be needed, and they'll help to develop the final lists of potential priorities. The prioritization process is a data-driven, transparent approach to identify and communicate potential department actions relative to continuous evaluation and mitigation.

SPARC members and the public may submit pesticides for DPR to consider, and all submittals will be initially categorized as Category 3 and will be posted and summarized on DPR's website. DPR anticipates that there'll be more potential priorities submitted than can be discussed during SPARC meetings. Therefore, a subset of the submitted potential priorities will be identified as Category 2 by DPR, and available data will be summarized for the committee to review during public meetings. The committee will provide feedback and recommendations to DPR to be considered during development of action plans for each potential priority. Category 1 recommendations by SPARC (up to four a year) will inform DPR's final list of prioritized actions and will be reflected in DPR's Continuing Evaluation Mitigations update Table (CEMT). The DPR Director will take into consideration available information, recommendations from the committee, and the capacity within department to determine which potential priorities are selected to move forward to Category 1. The CEMT will also track shifting priorities as new actions are discussed and prioritized by DPR reflective of discussions occurring at SPARC and will be updated at least annually and posted online.

SPARC will meet quarterly and meetings will have online access and be open to the public and include opportunities for public comments. Find more info on the [SPARC webpage](#), or email prioritization@cdpr.ca.gov.

Brian Gress from DPR's Integrated Pest Management (IPM) Branch presented on the Sustainable Pest Management (SPM) Advisory Committee.

The origin of the SPM committee stems from a recommendation in DPR's SPM Roadmap document which was developed by a cross-sector workgroup. The workgroup recommended that DPR establish a diverse multi-stakeholder committee to advise the department on SPM implementation and to help advance collaborations, accountability, and the impact of SPM in California. Following the Roadmap's recommendation, DPR integrated the idea of forming an SPM Advisory Committee into DPR's Strategic Plan.

The focus of the SPM Advisory Committee is to identify barriers and opportunities for SPM adoption and each meeting will focus on a different topic that the department is actively working to address. These topics include: developing SPM metrics and criteria that can be used to track statewide progress and implementation of SPM, how to leverage supply chains and procurement to promote SPM opportunities to improve data collection, and understanding of urban pesticide use, development of goals and criteria for SPM projects, development of SPM plan templates, opportunities for SPM continuing education, practical implementation and grower adoption strategies, as well as, availability and feasibility of alternative practices.

Committee members have technical or practical experience in sustainability, IPM, or pesticide alternatives and have demonstrated commitment to scaling those practices and working through SPM-related challenges. Committee meetings will be held quarterly and conducted virtually with opportunities for public input. The committee member selection process is currently underway with final decisions being made by the DPR Director and Deputy Director for SPM. The first meeting will likely be in second quarter of 2026. Email SPMAdvisory@cdpr.ca.gov if you have questions.

Committee Comments

Garrett Keating (OSHA): I have just two questions, first: SPARC and the public can submit potential priority chemicals to DPR and they will all be Category 3. I guess that could be a very long list and then DPR narrows that down to four which go to Category 2 and then discussed at SPARC? If I have that right? My question is this, does SPARC engage with DPR when it makes that decision, going from Category 3 to 2?

Laurie Brajkovich (DPR): We will get a lot of submittals probably from the public and the SPARC committee and all of those will be Category 3- from there, DPR is going to take a subset of the Category 3 submittals, it won't be four, but it will be a smaller number than all Category 3 submittals. A subset of Category 3 submittals will be selected by DPR to come to the SPARC for review, comments, and recommendations from the SPARC committee.

JT Teerlink (DPR Deputy Director): I'll also add that what we're envisioning and of course we are just working on standing this up, so we will see how it works, is that DPR is making that determination between Category 3 to Category 2 and providing a rationale for that. But everything is posted publicly, so certainly there will be opportunity for SPARC to weigh-in and maybe call back to elements that were not selected for moving forward. In a similar fashion, maintaining that list of what is submitted, so externally, folks can see if others made similar recommendations and if recommendations are being made in multiple places. Both the committee and the public will be able to see that.

Garrett, Keating (OSHA): And then my next question, TSCA, the Toxic Substances Control Act has something called "pause preemption," where if US EPA is taking review under TSCA, state agencies can't. We're looking into this at CalOSHA because it affects our prioritization and I'm not sure there are any pesticides on that list at the moment, but it might. Going forward, it's not something you can do much about, it's a federal law but has that come up at all in your discussions?

Laurie Brajkovich (DPR): It has not come up that I'm aware of, but we're just getting started with standing up the committee. I know there's talks and sometimes further information discussed within DPR that I may not have been a part of, so I will look into that.

Kathleen Boyle (SPCB): Can you provide info regarding the scope of urban IPM with structural pest control practices in mind, including structural fumigation as well as rodent and general pest control practices?

Brian Gress (DPR): We'll maybe work that out during the discussions of the SPM Advisory committee. That's a topic that we could discuss in terms of scope. If you'd like a more specific answer, that's something that I can look into and get back to you on. It's not something that we've actively discussed so far.

Sapna Thottathil (DPR Deputy Director): I can jump in here to support that answer as well and as Brian said, we are currently developing the SPM committee. We are hiring new staff to look into this. The intent of this is to better capture what is happening in the urban space or with general consumers. An individual can go to a store, any store and buy a pesticide off the shelf and can use it and not report how they use it, when they use it, why they use it. Unlike pest control businesses or pesticides used in agriculture. The SPM Roadmap identified that this is a large unknown area and could be a significant amount of pesticide use in the state. So the intent with creating an urban program is to have a better sense of how pesticides are being used in other ways when they're not required to be reported and for then us to consider building a program around this. How can we better educate consumers about safely using pesticides and think about some of these other issues in more depth as well, in a way that we haven't done previously. A lot of this is forthcoming and we definitely want to use the SPM advisory board as a resource for better understanding where we can build out programming and how we can coordinate with other state agencies as well, among other topics and issues.

Public Comments

Sarah Aird (Californians for Pesticide Reform): I just wanted to clarify and make a correction to one of the things that was said about the EJAC committee, in statute it doesn't say that it will meet twice a year, it says *at least* twice a year. I wanted the PREC members to be aware that communities around the state are actively concerned that the EJAC committee right now is scheduled for only two meetings a year. Just in terms of environmental justice principles, it doesn't comport with the ability of the public to meet in a meaningful way on really critical, complicated, and confusing issues, so we are seeking additional funding to ensure that DPR has additional meetings per year and are looking forward to having the support of DPR.

In respect to SPARC, I just wanted to confirm that we were told that in addition to active ingredients being recommended under the pesticide priorities, that the public is welcome to nominate classes of pesticides that share common mechanism of toxicity. I know that that's a really strong concern because again community members are really concerned about the cumulative impacts of the pesticides that are being used near them.

My final request, which I have made before, in light of environmental justice principles, we request that these meetings be recorded and posted online. I also understand that some of today's materials are available on DPR's website, but these presentations are not posted on the website. It would be really helpful to have the presentations and all the information provided in advance on the PREC webpage so that the public has easier access and it's easier to follow for the public.

Kathleen Kilpatrick: I live in an agricultural community close to fields and I worked as a volunteer with safe schools campaign for organic and regenerative agriculture. And I do some

committee work with CPR. I'm going to just go with DPR's stated intent to implement the Sustainable Pest Management Roadmap and the three committees that you described are all pieces of that puzzle. But it's a little unclear to me how they're going to interface with each other. So just to reinforce Sarah's comment, members of the community are concerned about groups of pesticides and not individual pesticides. DPR has worked with them individually. It sounds like SPARC could work with them individually or could group them. We spoke with somebody from CARB yesterday and she talked about how they were going to try and figure out the fastest and most efficient way to reduce the toxins in the air and it seems like DPR plan has not worked that way in the past. So how can these committees work together to address communities concerns about their exposures. How to get lists of chemicals or groups so that you can figure out which ones are the priorities and how can the different methods of reducing reduced them which is the work of the SPM advisory committee drive that reduction so that we can get rid of these toxic chemicals and replace them with agricultural methods that are healthier in the fastest way possible. I just want to know about the coordination that's among these committees and with DPR.

JT Teerlink (DPR): Thanks, Kathleen. That's a big question. Don't know if I'll be able to do it full justice here. You bring up a lot of different points. Maybe where I'll start is the intent with each of these three committees. I think Denia, Bryan and Laurie did a good job of describing the roles of those committees individually. All of those have a role to make recommendations to the department and then of course all of those have public facing opportunities for incoming comments as well as public posting. So certainly, DPR will be tracking and any recommendations that are made that have a good fit for each of those committees we will make sure that there is engagement. We're standing up a lot simultaneously so we'll certainly be looking for opportunities to make those links and make clear how things are connected.

JT Teerlink (DPR): I saw a couple other questions that I will comment on. Margaret Reeves asked the question in the Zoom Q&A of when SPARC is expected to be announced. Our goal is to stand up that committee by this first quarter and likely a February timing for announcing the committee members. Also wanted to confirm Sarah Aird's question about whether groups of chemicals could be submitted. That's accurate, so it could be an exposure pathway or it could be pesticide groups. I just want to want to make sure is clear and it is described in the SPARC committee documents, for active ingredients where there's been a considerable amount of work and mitigation at either the federal level or at the state level - we have described that should recommendations come in on something that we've mitigated the risks for we wouldn't necessarily be picking up that chemical and instead we'll be pointing to the mitigation. I think another good thing to highlight is that our authorities haven't changed relative to the ability to mitigate, so if we've mitigated something based on the information that we have, it's in the department's best interest and California's best interests for us to shift and focus on additional chemistries.

3. Volatile Organic Compound Emissions from Pesticides: 2020-2024 – Vincent Aguirre, Environmental Monitoring Branch

Vincent Aguirre from DPR's Air Program gave an update on the annual report (2024) on volatile organic compounds (VOCs) emissions.

Vincent gave some background on DPR's Air Program and the annual emissions report. The Clean Air Act charges the U.S. EPA with approving state plans to regulate emissions of air pollutants. Ozone is a major component of smog and harmful to human and environmental health. Ground level ozone forms in the lower atmosphere through a series of chemical reactions, but two key chemical precursors are nitrogen oxides and VOCs. VOCs are emitted from many different sources, one of which is pesticides. Pesticide emissions of VOCs are regulated by two CA agencies. The Air Resources Board regulates consumer pesticide products. DPR regulates agricultural and structural pesticide applications. In 1994, DPR committed to reducing emissions by a set percentage of emissions from the baseline year of 1990 in five nonattainment areas (NAAs). DPR conducts an annual inventory of the VOC emissions and publishes the results in an annual Inventory Report.

DPR's VOC inventory focuses on the peak ozone period (May–October). VOC emissions are calculated for each pesticide application by multiplying applied product mass and the fraction of a product assumed to contribute to atmospheric VOCs. For fumigant applications, emissions are further adjusted by a factor that accounts for the effect of application method on emissions. Total emissions within each NAA are compared to an emissions reduction target. The reduction target for four of the NAAs is 20% of their 1990 emissions. The San Joaquin Valley NAA has a reduction target of 12% of its 1990 emissions. 2024 emissions for each NAA remain below their limits, meaning that the NAAs are achieving mandated reductions.

In Sacramento Metro NAA, in 2024 the total emissions were 1.332 tons per day (tpd). This is 40% below the regulatory limit of 2.2 tpd.

In San Joaquin Valley NAA, in 2024 total emissions were 15.607 tons per day. This is 13.8% below the regulatory limit of 18.1 tpd. Restrictions on the use of certain high-VOC nonfumigant products in this NAA were triggered in 2015. Currently nonfumigant restrictions remain active through 2026. Once prohibitions are triggered, DPR regulations require prohibitions to continue until at least two consecutive years of total hypothetical emissions are less than the trigger level. The continued increases in total emissions are driven by a continued increase in nonfumigant emissions. The increase in nonfumigant emissions is attributed to an increase in the use of a wide variety of alternative nonfumigants to chlorpyrifos, since its ban in 2021. Offsetting this nonfumigant increase are decreases in emissions from fumigants, particularly the decline in the 1,3-D emissions resulting from the adoption of new application methods with low emission ratings (ERs). Therefore, DPR determined that the nonfumigant prohibitions should remain in effect through 2026 to ensure total hypothetical emissions stay below the trigger level of 17.2 tpd and remain in compliance with the SIP goal of 18.1 tpd.

In Southeast Desert NAA, in 2024 total emissions were 0.280 tons per day. This is 69.6% below the regulatory limit of 0.92 tpd.

In Ventura NAA, , in 2024 total emissions were 1.163 tons per day. This is 61.2% below the regulatory limit of 3.0 tpd.

In South Coast NAA in 2024 total emissions were 1.059 tons per day. This is 87.8% below the regulatory limit of 8.7 tpd.

In 2024, all five NAAs were in compliance with their goals and emissions remained below their individual thresholds also in light of the upward trend upward emissions trend observed in the San Joaquin Valley DPR determined that the non fumigant prohibition should remain in effect through 2026. DPR will assess the impact of the availability of new low emission alternatives as part of next year's assessment of non-fumigant regulations.

Find the draft annual VOC emissions inventory [report](#) on DPR's website.

Committee Comments

Stanley Armstrong (ARB): I just have one question about the emissions chart for the San Joaquin Valley. It looks like there's a decrease in emissions from 2020-2022. Then it looks like it's going back up in 2023 and 2024. Maybe you could explain it a little bit?

Vincent Aguirre (DPR): The increase in emissions we are attributing to an increase in non-fumigant emissions. There's been an increase in non-fumigant emissions the past two years as to why, we still investigating that.

Maziar Kandelous (DPR): Also want to add, one thing in terms of now for the emissions going up and down, emissions are the result of the pesticide use, so based on the cropping system, based on the pest pressure, the use of the pesticide will change so we will see those fluctuations now from year to year and basically we are monitoring those to make sure that we always stay below those levels.

Stanley Armstrong (ARB): My next question is you said in the second slide after the San Joaquin Valley chart, Item 2 said that there's a decrease in fumigant emission literature tribute to 1,3-D regulations. I remember our last PREC meeting showed that some of the 1,3-d emissions were actually going up in 2023 and 2024. Is that covered here in these emission charts?

Maziar Kandelous (DPR): In terms of the emissions as a whole and when it comes to VOCs, one thing that we are trying to say here is for San Joaquin Valley, we have the non-fumigants prohibition in place. So, we are making sure that the non-fumigant contribution remains low, because you know when we put this non-fumigant prohibition in place it was determined that the non-fumigants are the factors contributing to those emissions. So, what is happening here is that we see that the non-fumigant emissions stay the same or slightly increase the past few years. There have been some slight increases in emissions on the other side when we talk about fumigants, we have seen decrease in fumigant emissions as a whole compared to the last like four or five years. So, what this tells us is the regulation is in place for non-fumigants and making sure that we stay below the trigger level. However, the reason we are below the trigger levels is the reduction from fumigants, mainly for 1,3-D, so it's a major factor contributing to the

lower emissions and contributed to our low emissions that were introduced as part of our regulations. So answering your question in terms of increase or decrease or fluctuations from year to year, that is contributed to the changes to the cropping patterns and know how much of the new order, for example is going into, or how much of the those annual uses are the crop that uses 1,3-D annually are planted. Fluctuations always happen and that's because of the cropping pattern, but in general there has been decrease in fumigants and 1,3-D as well when we did the analysis. The introduction and adoption of the low emissions methods mainly those 24 inches where the contributing factors for the decrease in emissions when it comes to the fumigants.

Committee Comments

Margaret Reeves: How are hypothetical emissions determined?

Vincent Aguirre (DPR): If you are interested in the hypothetical emissions, go to the report directory and look at Appendix 3, at the bottom of Appendix 3 it explains the math behind hypothetical emissions and how it's calculated, what the hypothetical emissions value is for this past year, and all the calculated hypothetical emissions for the non-fumigants in applied to the seven crops in the San Joaquin Valley. So, all that data will be there, but basically hypothetical emissions assume that the distribution of emission potentials used in 2014, the last year before prohibitions were enacted. It assumes that same distribution of emission potentials and it applies those emissions potentials to the product masses used today or the year that you're calculating them for and it tries to assess or predict what emissions would be if we used the same distribution, or if we apply the same distribution of high and low VOC usage from 2014 to today's usage.

Emily Márquez (Pesticide Action and Agroecology Network): How are you determining which are the more important non-fumigant pesticides that contribute to VOC emissions? I was recently looking at a study that was done in China and they were talking about a particular herbicide where they had monitored VOC emissions and found very high levels of VOCs coming from that particular herbicide and I was curious if you're looking at others or how you determine what those candidates might be later when looking at making more provisions.

Maziar Kandelous (DPR): Emily, thank you for your questions. When we talk about the VOC inventory, we are not focusing on any pesticide, we are not looking at what pesticides are important, it's just about whether the emission potential of each pesticide and what is the contribution of all the pesticides together in any of those areas.

Anne Katten (California Rural Legal Assistance Foundation):

I'm really glad to hear that you're keeping the extra controls in place for the non-fumigant high VOC pesticides, but I'm very concerned that the new 1,3-D deep injection methods actual emissions may not be as low as the estimated emissions because at most of the air monitoring sites we have not seen a decrease in the 1,3-D air levels and the decrease at the Shafter site has been very modest. I would like to know what DPR is doing to look at this situation.

Maziar Kandelous (DPR): DPR is continuing to monitor all the emissions from our AMN stations including for 1,3-D. Now when we put the regulation in place when we introduced those low emissions methods, we had estimated how much reduction we can get, and based on what we see that is what we expected, but again we will continue monitoring our data, the use amount, the VOCs. DPR has an annual report specifically for 1,3-D through the regulations and we try to explain all of those in those annual reports as well.

Kathleen Kilpatrick (CPR): As a health care provider I'm concerned about the setting of these target levels based on this grouped modeling and pretty limited monitoring. It seems like there's the potential for missing some of the incidence and impacts of acute exposures or temporary high-level exposures which I know are occurring in urban areas (for example, from methyl bromide use, there have been some high levels detected and also in the San Joaquin Valley there have been higher levels) and what's missed from that is the impact of a population being exposed in a particular timeframe. I know for me, living surrounded by berry fields when they're using a lot of chloropicrin, my eyes burn. I'm rubbing my eyes all the time and it's like oh, yeah, they're putting fumigants all around me in my valley. And then there was that one study that's been cited including by DPR in their fumigant alternatives report of increased emergency room visits with applications of both 1,3-D and methyl bromide in, I believe that was in the San Joaquin Valley. It seems like setting these levels and not looking at the big picture, especially in the NAAs where there are multiple sources of exposures, is really missing the picture of what are the possible human health effects of these. So many pesticides are respiratory irritants and all the fumigants are toxic air contaminants. So, I just don't understand how this method of quantifying them really captures the potential for what is happening in our populations in NAAs and in our workers and residents in agricultural communities.

Maziar Kandelous (DPR): In response to your comment in terms of the levels that we have, so basically this report's analysis that we do are in response to VOC regulations. So, we have certain limits and the regulations require us to have an update on the inventory of the emissions to make sure that the emissions of the VOCs are below certain levels. This is annual reporting is required by the regulations. The regulations tell us that if we exceed any of those levels, then there are mitigation in place that we have to follow. That's what we are doing here in this presentation as part of the VOC report. It's just the inventory of pesticides contribution into the VOC emissions. So that's about the VOCs and those levels. As far as feeling burning in your eyes. I would suggest reaching out to your Agricultural Commissioner and they can come in and investigate that application. If there is any chloropicrin use in your area they can come in and investigate the applications.

Sarah Aird (Californians for Pesticide Reform): I think maybe I just misunderstood something that was said earlier around 1,3-D emissions. I just want to clarify. I thought I heard stated that, the emission levels we're finding are what were expected with these lower emission methods. But I think we're really concerned that these lower emission methods, which you know didn't have a ton of testing, and they're very hard to enforce, and they're really hard to implement. DPR spent a lot of time, like years, developing them, but they do not seem to be having the results that we think are needed. I guess we are questioning what DPR is doing about it? There have been so many concerns around 1,3-D. We've seen emission spikes over the years.

I'm not talking about in the last year, but we've seen emission spikes of 1,3-D that are off the charts in the past. You know 1,3-D was basically banned from the state for five years and yet we've seen higher levels than that since then with no mitigations at that particular time and no outreach to the community at that particular time. We have a long history of concern around 1,3-D coming from communities. I would just like some clarification on this because we are very concerned that these lower emission methods do not seem to be resulting in lower emissions.

Maziar Kandelous (DPR): The question gives me the opportunity to clarify what I meant. In terms of 1,3-D, as part of the regulations there are mitigation measures, such as introducing low emission methods. As part of those low emission methods, one of them was deeper injections. Based on the data that we are seeing and the analyses, it shows that the regulations are working the way they should. We continue monitoring every single year and post our 1,3-D use on a quarterly basis and we continue those annual reports and we are monitoring to make sure that the regulations do what they intend to do. And if they are not, as part of the regulations, there are factors in place that require DPR to take certain actions.

3. Ecosystem Monitoring – Jill Townzen, Pesticide Evaluation Branch

Jill Townzen, Chief of the Pesticide Evaluation Branch, announced the availability of funds for ecosystem monitoring contracts. Funding for ecosystem monitoring was originally a limited 3-year term with funding available for research contracts that focused on assessing potential impacts to wildlife and ecosystems and that helped inform pesticide registration decisions. Five projects were funded in 2021. Those five contracts looked at honeybee foraging in strawberries, tested salvaged otters for pesticide exposure, looked for rodenticides exposure in urban carnivores, looked at pesticide exposure in California bats, and looked at edge effects on wildlands that were within or adjacent to an agricultural field. With the 2024 SPM BCP, there is ongoing funding for ecosystem monitoring. DPR is interested in partnering with researchers on ideas that they have that would help inform pesticide registration decisions and looking at where pesticides are going when they enter the environment. Reach out to Jill <Jill.Townzen@cdpr.ca.gov> with ideas and to meet to discuss. If you'd like more information about the projects funded by DPR in the past to see if your idea is in aligned with past projects, you can find the previous projects on DPR's website: <https://www.cdpr.ca.gov/environmental-monitoring/ecosystem-protection/>

Committee Comments

None.

Public Comments

Anonymous: What are pesticide edge effects?

Jill Townzen (DPR): That project was looking at wildland areas that were within agricultural fields or adjacent to agricultural fields. One of the ideas behind that was trying to determine how far pesticides were making it into those wildland areas. We worked on this with the California Department of Fish and Wildlife to try to identify the size of wildland area needed to preserve the inside of that area without pesticides. So, they were monitoring different environmental compartments within those wild areas. They looked at, I believe it was insects, maybe some plants, and soil sample testing those for pesticides to see how far into the wildland areas they were moving, at the edge between that wildland and the agricultural fields.

Kathleen Kilpatrick: Some of the people who I believe applied to be on at least two of the committees that we talked about at the beginning of the meeting, have expertise in some of the areas covered by the grant. Does sitting on one of those committees exclude them from consideration from getting a DPR grant for ecosystem monitoring?

Jill Townzen (DPR): These are not grants, these are research contracts with researchers. However, I do not think that sitting on one of those committees would preclude someone from being able to contract with DPR. I can look into that more if someone is interested in a research contract with us on ecosystems monitoring. I suggest that they reach out and we can try and answer those questions in regards to what their project idea is.

Sarah Aird, Californians for Pesticide Reform: I think ecosystem monitoring is really important and the coalition I think is very supportive of this kind of effort. So, I just really wanted to commend DPR for doing this. I did have a question to orient myself. I'm not super familiar with these projects, have all the studies been conducted, is this information that we can hear more about or learn more about on the website? Then in terms of the pesticide edge study, I was just wondering - I know that there was a study done on five Sacramento Valley wildlife refuge sites, where they found pesticides at every refuge and every sampling plot. I think it was 36 pesticide compounds and degradates detected. Was that the survey or the study that you're talking about?

Jill Townzen (DPR): I am not sure. The study that we're talking about is with the California Department of Fish and Wildlife and it is ongoing. It's a project that we've funded that is not complete, the others are complete. I do not think we have posted the final reports online, but if you are interested in knowing more about those projects, feel free to reach out to me and I can talk with you about that.

5. Agenda Items for Next Meeting

None to report.

The next PREC meeting is scheduled for March 20, 2026, at 10:00 am. This meeting will be held virtually on the Zoom platform and broadcast live on the [CalEPA webcast page](https://video.calepa.ca.gov/)
<video.calepa.ca.gov/>

6. Adjourn