PESTICIDE REGISTRATION AND EVALUATION COMMITTEE (PREC)
Meeting Minutes – July 18, 2025

Committee Members/Alternates in Attendance:

Elizabeth Marder – Department of Public Health (CDPH)
Fabiola Estrada – U.S. Environmental Protection Agency (EPA), Region 9
Garrett Keating – Department of Industrial Relations (DIR)
Jonathan Williams (alternate) – Stare Water Resources Control Board (SWRCB)
David Fairman (alternate) – SWRCB
Kari Arnold (alternate) – University of California (UC), Davis, IR-4 Program and Environmental Toxicology
Kevi Mace (alternate) – California Department of Food and Agriculture (CDFA)
Kim Truong (alternate) – Office of Environmental Health Hazard Assessment (OEHHA)
Kristen Pidcock – Department of Resources Recycling and Recovery (CalRecycle)
Mai Ngo – Department of Toxic Substances Control (DTSC)
Nan Singhasemanon – Department of Pesticide Regulation (DPR)
Ryan Bourbour – Department of Fish and Wildlife (DFW)
Stephen Scheer – California Agricultural Commissioners and Sealers Association (CACASA)
Tom Ineichen – Structural Pest Control Board (SPCB)

Visitors in Attendance:

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

Alex Rubel – Venable
Amanda Albers – Bayer
Amy Ritter – SWRCB
Ann Grottveit – Kahn, Soares, and Conway
April Vingum – Bell Labs
Armand Ruby
Catherine Dodd RN
Emily Saad – Exponent
Eric Burkness – Minnesota Department of Ag
Ezra Miller, SFEI
Greg Loarie – Earth Justice
Jeremiah Wilson – CSI
Jimmy Hook – Kings County Agricultural Commissioner
JJ Lazo
Jonathan Evans – Biological Diversity

Karen Da Silva – Corteva
Kathleen Kilpatrick - FACTS
Katie Swift
Kylli Paavola
Mike Zeiss – Californians for Pesticide Reform
Renee Pinell – Western Plant Health
Robert (Bob) Schramm
Ruiqin Pan
Sakereh Maskal – Panna
Savanna Gosselin – Kahn, Soares, and Conway
Sarah Aird – Californians for Pesticide Reform
Tammy Tyler – Syngenta
Vicki Ghaffarzadeh – Valent

DPR Staff in Attendance:

Aisha Iqbal – Pesticide Registration Branch
Ajay Kumar – Pesticide Registration Branch
Andy Rubin – Human Health Assessment Branch
Aniela Burant – Environmental Monitoring Branch
Andrew Turcotte – Pesticide Registration Branch
Ann Prichard – Pesticide Registration Branch
Ann Schaffner – Worker Health and Safety Branch
Atefeh Nik – Pesticide Evaluation Branch
David Mauss – Pesticide Programs Division
Eric Kwok – Human Health Assessment Branch
Gayatri Sankaran – Human Health Assessment Branch
Golnaz Komaei – Pesticide Evaluation Branch
Jacki Coburn – Human Health Assessment Branch
Jaginder Sota – Worker Health and Safety Branch
Jazmin Johnson – Environmental Monitoring Branch
Jeanne Martin – Enforcement Branch
John Adragna – Human Health Assessment Branch
Dr. JT Teerlink – Pesticide Programs Division
Lauren Eby-Mckenzie – Environmental Monitoring Branch
Laurie Brajkovich – Pesticide Programs Division
Madison Le – Pesticide Programs Division
Manomita Patra-Bhowmik –
Maziar Kandelous – Environmental Monitoring Branch
Omid Zandvakili – Environmental Monitoring Branch
Randy Segawa – Environmental Monitoring Branch
Scott Tiscione – Human Health Assessment Branch
Svetlana Koshlukova – Human Health Assessment Branch
Nan-Hung Hsieh – Human Health Assessment Branch
Nathan Sy – Pesticide Evaluation Branch

Qiaoxiang (Daisy) Dong, PhD – Human Health Assessment Branch
Vikrant Singh – Human Health Assessment Branch
Vincent Aguirre – Pesticide Registration Branch

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

   a. Approximately seventy-five (75) people attended the meeting.
   b. There were no announcements or other committee business.

2. **Volatile Organic Compound Emissions from Pesticides: 2019-2023 – Vincent Aguirre, Environmental Monitoring Branch, DPR**

Vincent Aguirre, Senior Environmental Scientist with DPR's Air Program and lead scientist for the Air Program's annual report on volatile organic compounds (VOCs) emissions from pesticides presented about the Department's recently published 2023 report on VOC emissions. The presentation went over the history of DPR's VOC Emissions Report and the report's key findings.

In 1963, the U.S. Clean Air Act (CAA) was passed into law through subsequent amendments. The CAA charged the U.S. EPA with approving state plans to regulate emissions of air pollutants including troposphere ozone also known as ground level ozone. In contrast to stratified stratospheric ozone in the upper atmosphere which protects the earth against UV radiation, ground level ozone is a major component of smog and harmful to human and environmental health. Human health effects include increased rates of respiratory infection in healthy individuals, aggravation of existing respiratory illness, and premature death. Ground level ozone forms in the lower atmosphere through a series of chemical reactions, but key chemical precursors are nitrogen oxides and VOCs are emitted from many sources, one of which is pesticides. Pesticide emissions are regulated by two California agencies, the Air Resources Board (ARB) regulates consumer pesticide products and DPR regulates agricultural and structural pesticide applications. In 1994, DPR committed to reducing emissions by the set percentage of emissions in the baseline year 1990 in five containment areas, which are defined as areas that have not met CAA standards for ozone. As part of this commitment, DPR conducts an annual inventory of VOCs emissions and publishes the results in an annual inventory report. The DPR VOC inventory focuses on the peak ozone period between May and October. Within that period, 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 applications. Emissions are further adjusted by a factor that accounts for the effect of the application method on emissions. Calculated emissions are totaled within each containment area and compared to an emissions reduction target. The reduction target for four of the nonattainment areas is 20% of their 1990 emissions. The San Joaquin Valley has a reduction target of 12% of its 1990 emissions. Each reduction target is equivalent to a regulatory limit. 2023 emissions for each non-attainment area remained below their limits, meaning the non-attainment areas are achieving mandated reductions.

To prevent emissions from rising above regulatory limits in future years if the inventory report determines that a nonattainment area's emissions exceed 95% of its regulatory limit, restrictions on pesticide applications and products are triggered. In the San Joaquin Valley containment area, these restrictions are a general moratorium on the use of high-VOC, non-fumigant products on any of the seven of seven crop types. In the other non-attainment areas, restrictions are limits on the total fumigation emissions allowed in subsequent years. Fumigant limits are established through individual fumigant allowances and the ability of counties to deny NOIs and permits for fumigation within a containment area's boundary. No fumigation restrictions are currently active. However, non-fumigant restrictions have been active in the San Joaquin Valley containment area since 2015. Note that the emissions are liable to change each year due to a change in weather patterns, agricultural economics, and many other factors.

Each non-attainment area covers multiple California counties. The three southernmost non-attainment areas Ventura, South Coast and Southeast Desert are bounded to the North by the San Joaquin Valley, and then the Sacramento Metro.

In the Sacramento Metro Non-Attainment Area in 2023, the total emissions were 1.371 tons per day. This is 38% below the regulatory limit of 2.22 tons per day. No fumigant limits or restrictions are currently active.

In San Joaquin Valley Non-Attainment Area in 2023, the total emissions were 14.788 tons per day. This is 18.3% below the regulatory limit of 18.1 tons per day. As mentioned earlier, restrictions on the use of certain high-VOC, non-fumigant products in this nonattainment area were triggered in 2015. Non-fumigant restrictions currently remain active through 2025.

In the Southeast Desert Non-Attainment Area in 2023, total emissions were 0.493 tons per day. This was 46.4% below the regulatory limit of 0.92 tons per day. No fumigant limits or restrictions are currently active.

In the Ventura Non-Attainment Area in 2023, total emissions were 1.286 tons per day. This is 57.1% below the regulatory limit of 3.0 tons per day. No fumigant restrictions or limits are currently active.

In the South Coast Non-Attainment Area in 2023, total emissions were 1.03 tons per day. This is 88.1% below the regulatory limit of 8.7 tons per day. No limits or restrictions are currently active.

The draft 2023 VOC Emissions Inventory Report is currently online and can be viewed by scanning the QR code.

The QR code will take you directly to the report page on DPR's website. The 45-day public comment period ended on June 17, 2025. DPR is currently in the process of responding to comments received and expects to have the final version of the 2023 VOC Annual Report posted on DPR's website by the end of August.

If you have any questions regarding the VOC inventory, you can contact Vincent Aguirre or DPR's Air Program directly.

Committee Comment

Tom Ineichen (SPCB): I was just wondering if there's any evaluation or determination based on the location of the zones. You know some zones being coastal, versus inland. Is there any weighted average in terms of the amount of product in those areas?
I'm just thinking in terms of variability, you know more in the inland areas, it can be locked in where the coastal areas might be having higher winds moving material out. Is there any factors in that regard like amount versus the wind and velocity.

Vincent Aguirre, DPR: Our goal here is to measure or estimate emissions via usage and so that's what we stick with. Perhaps we could look into that or do it in terms of some future projects, but that would be something outside of this inventory. As far as the VOC inventory is concerned, it's basically a bottom up, estimation of emissions. We look at the usage records from all these areas and then we estimate based off of the products and the emission potentials of the products and we stop there. Looking at things like weather patterns and such, that would require measurements out in the field, and that's not really the scope of the VOC inventory.

Tom Ineichen (SPCB): So, just so that I understand it. The inventory process is very different than the air monitoring process and nothing crosses. Nothing is collaborated on either side. They're just totally separate issues.

Vincent Aguirre, DPR: Yes, that's right.

Garrett Keating (DIR): Very interesting. Did I see the South Desert region had the highest relative increase? You know you ran through those bar graphs and just if I'm correct, if you have any thoughts on that? I'm just wondering if you have studied or know of any relationship between cannabis operations and ozone levels. I mean there was a report in the literature about outside of Denver, I believe where they were looking at cannabis operations as an ozone source I believe or contributing locally. It's not the mechanism that you study under this law, but I'm just curious.

Vincent Aguirre, DPR: No as far as cannabis goes, it's out of the scope of and purpose of the VOC inventory. And as far as the South Desert having the highest relative increase, we haven't looked into it further. We're currently working on the 2024 VOC inventory, so we're not sure if that will continue or not. We'll find out and then we'll look into that.

Public Comment

Kathleen Kilpatrick: Maybe I missed the beginning of the report, is there an estimate of percent of pesticides to a total VOCS? And of fumigants of that?

Vincent, Aguirre, DPR: No, we don't compare percent of pesticides contribution relative to the VOC emissions, sort of outside the scope of the inventory report. However, the report does include full details of VOC emissions from pesticides within the non-attainment areas and it aggregates emissions by various categories including fumigants. I can drop a link to the report so

you could kind of go over all those details.

3. **An Update on DPR's Continuous Evaluation and Mitigation Efforts – Dr. JT Teerlink, Deputy Director for Registration and Evaluation and Madison Le, Deputy Director for Monitoring and Mitigation, DPR**

Dr J.T. Teerlink, Deputy Director of DPR's Registration and Evaluation Division gave a presentation about a major update on the department's current reevaluation and mitigation activities and shared timelines and milestones. As part of the fiscal year 24/25 budget process, DPR received support to implement its work to advance its mission to protect people in the environment including fostering sustainable pest management, through AB 2113 which included a number of requirements, some aimed at improved transparency and accountability. On June 30th, 2025, DPR posted an update to the pesticide lookup page: https://www.cdpr.ca.gov/look-up-pesticide-info/continuous-evaluation-and-mitigation-update/

JT showed the current table and stated that it would be updated at least annually: We have some updates to milestones that were part of the January 2025 release and these are denoted in bold to show where the milestones have been met and are noted if the timeline has shifted. This table will communicate and document any shifts and make it more clear to follow a pesticide's actions and timeline. AB 2113 called for posting of estimated completion timelines for pesticides that the department has under reevaluation as of January 1, 2024. DPR posted this information consistent with the bill. In addition, AB 2113 also calls for an annual report on actions to identify and evaluate potential adverse effects of pesticides and to develop mitigation measures to address those effects. At the end of June, DPR met this requirement for annual reporting building on the reevaluation table to include updates on mitigation risk assessment and rulemaking efforts, which are all under the continuous evaluation and mitigation umbrella.

DPR has a number of activities and work projects that support efforts to continuously evaluate registered pesticides. One of them is pesticide use reporting (PUR) information that can be used to assess spatial and temporal trends and it can also be paired with other information. DPR's Environmental Monitoring Branch conducts monitoring of air, surface water, and groundwater and our continuous evaluation efforts look at a specific active ingredient. DPR also makes sure to pull in all relevant information that can be from some of the entities represented here in the PREC that also have robust monitoring programs. DPR also has some additional ecosystem monitoring work that is being developed as part of AB 2113. DPR is looking forward to having more consistent studies as a part of that. DPR also has tracking of pesticide investigations or reported illnesses and then, of course we're always following evolving science and research in peer review literature and activities from other regulatory agencies both in this country and others. DPR is using all of that information as a part of our continuous evaluation efforts.

To assess risk, the department may conduct a risk assessment or in the case that a pesticide may have caused or is likely to cause a significant adverse impact to people or the environment, DPR may open a reevaluation. A risk assessment may be conducted alone or may be conducted to support a reevaluation. Historically, the term risk assessment by DPR has been synonymous with human health risk assessments and those are projects where we look at all registered uses and all

possible exposure pathways for a specific active ingredient. However, a risk assessment may be focused on either human health or environmental endpoints and the scope of the assessment can vary. It would be possible to look at a single mode of entry such as inhalation or dermal for human health or a specific terrestrial or aquatic taxon or it may be a single exposure pathway evaluating multiple active ingredients. In contrast to reevaluation, it's a formal regulatory tool. When the department opens a reevaluation. The scope is defined and the department identifies all currently registered products within the scope of the reevaluation and notifies registrants of the status. Once reevaluation has been opened, the department does not allow for registration of products within the scope of the reevaluation (there is no expansion of additional uses or use sites or commodities).

AB 2113 is a new bill and DPR is working hard to make sure all parts of it are implemented. The bill has a number of requirements focused on reevaluations. Historically, the Human Health Assessment Branch has posted priority lists for human health risk assessments and those lists were from 2011 and 2014. Moving forward, this table (*Continuous Evaluation and Mitigation Update table*) will reflect department-wide current priorities and work. In addition, there are requirements in statute that characterize how, when, what the threshold is for opening a reevaluation, as well as closing. To close a reevaluation, the department must mitigate any risks that have been identified.

The Department is developing a pesticide prioritization process and a scientific advisory committee. A public workshop in April of this year introduced the process and committee and included an informal public comment period. The committee should be in place by the beginning of 2026. The prioritization process is connected to the updates on reevaluations and mitigations because it will introduce additional public participation and transparency on the department's continuous evaluation efforts. Potential priorities will be generated by DPR staff, as well as potential priorities put forth by the committee or the public with input from public participation as part of the scientific advisory committee. The department will identify and communicate any action plans associated with pesticides moving through this process. Action plans may include things like a data request, this could be a part of a reevaluation or initiating action. It could be in a case where the risks are well characterized, initiating a human health or environmental risk assessment, or in cases where the risks are well identified – initiating mitigation. All action plans will have timelines and will be added to the Continuous Evaluation and Mitigation Update table. The prioritization process will be the primary vehicle for new actions being added to this list and there's plenty of opportunity for public engagement.

Today's presentation did not go into the fine details, but there are plenty of information and resources available online. In the case of the reevaluations that follow, DPR published a semi-annual report that contains a lot more detail. https://www.cdpr.ca.gov/stakeholder-notice/semiannual-report-summarizing-the-reevaluation-status-of-pesticide-products-during-the-period-of-july-1-2024-through-december-31-2024/

Chloropicrin – In the Continuous Evaluation and Mitigation Update table, the bold text represents a completed step. In the January update, the table noted the action would happen, and now it's showing that it is complete. DPR's technical team also determined they needed all of the studies, except for study five, before making that determination. This table makes it more easy to

track the Department's progress and status and any shifts that might occur. Chloropicrin is a fumigant and the reevaluation is focused on potential risks resulting from chronic exposure. This reevaluation has been opened for some time. In 2023, there was a pause and a step back to determine if the studies we had required as a part of formal reevaluation were the right studies to get to the answer most quickly. We were reassured what the required studies needed were, and DPR is now on track to complete this reevaluation more quickly.

Cyfluthrin is an insecticide that is used in residential and agricultural settings. This particular reevaluation was opened from a respiratory exposure to certain residues in orange harvesters. The table shows the first milestone towards closing this reevaluation, DPR has completed a scoping document to ensure there is targeted human health risk assessment focused on the risks that led to opening this reevaluation and determine what the risks are.

Next is the **second-generation anticoagulant rodenticides and diphacinone, which is a first generation anticoagulant rodenticide**. They were opened as separate evaluations so they are separate rows on the table. However, the next steps are identical so they were grouped in this presentation. DPR is working very hard to put out a public workshop on the potential mitigation by the end of this quarter. A save the date should be coming out soon.

Non-Ag Neonicotinoids – (note that DPR had a previous reevaluation focused on risks to pollinators from agricultural use of neonicotinoids. The regulations to mitigate those risks were implemented in January 2024 and that issue was closed) Legislative activity in 2023 (AB 363) resulted in a pretty focused reevaluation focused on non-ag neonicotinoids. This law directs the department to assess risk associated with the use of neonicotinoids resulting from use in non production outdoor and ornamental plants, trees, or turf. The law identified a number of intermediate scientific assessments; DPR is on track with all of the documents required. The most recent publication (June 2025), details the impacts of neonicotinoid pesticides to aquatic organisms. DPR's Human Health Assessment Branch earlier this year completed draft risk characterization documents for acetamiprid, clothianidin, dinotefuran, and thiamethoxam. We sent those to OEHHA and U.S. EPA for scientific peer review and we received comments back and my team is on track and working to incorporate that feedback and complete this by the end of the year. We are on track to complete the final human health risk assessments for acetamiprid, clothianidin, dinotefuran, and thiamethoxam by Q1 2026. We plan to issue determination with respect to the reevaluation of neonicotinoid pesticides on their impacts to pollinating insects, aquatic organisms, and human health by Q3 2027; and if rulemaking or other mitigation is required, we plan to complete by Q3 2029.

Paraquat – A couple of timelines were completed. Late in 2024, the preliminary scientific reports for the impacts of both human health and the environment were published. There were requests for an extended comment period, so the next completion point is complete review of public comments by Q2 2025; that's delayed a quarter from what we put out in January and that results from us granting the extension. DPR issued a letter to registrants detailing next steps, which included a request for mitigation proposals from registrants to address the environmental impacts as well as a part of the evaluation and required human health data. Note that if a formal reevaluation is opened, part of that process is being able to identify data gaps and request that data from registrants.

DPR has open human health risk assessments or environmental risk assessments that are already a part of a formal reevaluation:

- Linuron
- Chloropicrin*
- Cyfluthrin*
- Diphacinone +
- Second-Generation Anticoagulant Rodenticides +
- Non-Ag Neonicotinoid *+
- Paraquat *+

* Human health risk assessments being completed as a part of a formal reevaluation.

+ Environmental risk assessment being completed as a part of formal reevaluation.

All of the AIs we went over have either one or multiple risk assessments that are defined by the scope of the reevaluation that are underway to support that reevaluation. Linuron on the other hand is not under former reevaluation and the Department is working through the risk assessment

DPR is on track to complete a draft human health risk and exposure assessment documents this quarter, then it goes to formal scientific peer review, and then it will be moving towards finalization in about a year from now.

Next Madison Le, Deputy Director of the Monitoring and Mitigation Division.

A list of active ingredients was shown that are going through active mitigation:

- Carbaryl
- 1,3-Dichloropropene (1,3-D) (rulemaking)
- Groundwater protections (rulemaking)
- Fipronil
- Pesticide Decontamination Site and Eyewash (rulemaking)
- Phosphine
- Propanil
- Propargite
- Simazine
- Sulfuryl Fluoride
- Tribufos

DPR develops mitigation measures that reduce exposure risk to protective levels. Some of the mitigation steps include developing or updating a risk characterization document (RCD) or developing a risk management decision (RMD) and developing a scoping document. And during this whole process, proposed mitigation options are explored and stakeholder outreach is conducted. Implementing mitigation measures may include best management practices (BMPs), permit conditions, regulations, product formulation changes, label changes, product cancellation, or combination of these options.

Carbaryl - is an insecticide primarily used in agricultural settings with some non-ag uses including turf and ornamentals. DPR risk characterization document (RCD) identified occupational and residential exposure concerns. DPR addressed residential exposure through

regulation changes in 2020, expanded the existing restricted materials designation to include nearly all products except for bait products labeled for ag uses only then U.S. EPA developed mitigation actions to address potential occupational residential exposure risk identified during their registration review process. DPR is reviewing U.S. EPA's mitigation actions and comparing it to our exposure risk findings. DPR will then develop mitigation measures for any identified risks that have been addressed. Note that anytime U.S. EPA takes a mitigation action, we then compare what we've done and see if there's anything that U.S. EPA identified that we need to address. We'll complete the steps as I just mentioned by Q1 2026 and then we'll develop potential mitigations options for any concerns not yet addressed by Q1 2027.

1,3-D or Dichloropropene - fumigant applied to agricultural fields prior to planting to control soil pests. Major crops include almonds and other orchards; and crops such as grapes, strawberries, sweet potatoes, and carrots. DPR has implemented regulations to restrict 1,3-D to protect residential bystanders in Q1 2024. These regulations address acute and cancer risk for residential bystanders and include setbacks of 100 to 500 ft between occupied structures and 1,3-D applications, fumigation method changes to reduce emissions, and an annual report. DPR also issued a notice of proposed regulations in 2024 to restrict 1,3-D use to address cancer risk to occupational bystanders. These proposed regulations include a buffer zone between 1,3-D application sites and people, particularly farm workers working in nearby fields, and a requirement for DPR to continue to evaluate occupational risk associated with 1,3-D use, and on an annual basis (if necessary and in consultation with OEHHA). DPR will be required to develop additional protections based on its evaluation. Note that the second public comment period closed on June 28th and we are currently reviewing comments in order to meet the deadline of the court order and the administrative protection act. DPR plans to submit a final rulemaking record by November 17th, and if approved, the regulation will become effective on January 1, 2026. In addition to this. We also have an RMD for handler occupational exposures, it is anticipated to be issued by Q1 2026 and to follow up with rulemaking by 2028.

Fipronil is a broad-spectrum insecticide registered for non ag uses in indoor and outdoor settings on golf courses and landscapes to control termites and cockroaches. It is also used as a topical spot on treatment and spray and formulations for pets, mainly dogs and cats. DPR determined human health exposure concerns as identified in the risk characterization document for handlers using light concentrations or concentrations for structural applications, handlers using turf granules post application, or exposures to children from turf granules, pet groomers applying sprays and spot on treatments to pets, home users applying pet sprays, and post application exposures to children and adults from sprays and spot on treatments. There are also exposure concerns for aquatic life and water bodies that receive municipal wastewater discharge. The aquatic risk document for products used on pets will be completed this year and by Q2 2026 on to developing potential mitigation options for any identified risks in the pet product aquatic risk document and the human health risk assessment.

Phosphine is used as a fumigant on stored agricultural products such as grains and nuts. Non-food products such as wood and leather and rodent burrows. Phosphine is also available as a compressed gas and in liquid form such as a pellet or a tablet which reacts to moisture in the air to generate phosphine gas. DPR identified exposure concerns for occupational handlers and bystanders as well as residential bystanders. U.S. EPA determined that exposure to occupational

handlers and bystanders were not of concern, but there were residential exposure concerns. U.S. EPA has developed mitigation actions to address those concerns to address data gaps for occupational exposures. DPR conducted a study to monitor exposures from commodity fumigation using phosphine gas and did not find any occupational exposure concerns. Currently, DPR is reviewing U.S. EPA's mitigation actions and is comparing it to our exposure risk findings, and then will develop mitigation measures for any identified risks that have not yet been addressed. The intent is to complete the report from the monitoring study to quantify exposures during bagged commodity fumigation by Q4 of 2025 and we also intend to complete review of U.S. EPA's mitigation actions and compare to our exposure findings identified in the RCD by Q2 of 2026. Finally, DPR also intends to complete the report of the monitoring study to quantify exposures during tarped pile commodity fumigations using metallic phosphides by Q4 2026. Last, we will identify if any mitigation is needed by Q3 2027.

Propanil is a post emergent herbicide used solely for agricultural control of weeds in rice fields. **Propargite** is used to control spider mites on a wide variety of agricultural crops and has non-agricultural uses. **Simazine** is a pre and post emergency herbicide used to control grasses and weeds in agricultural and non-ag settings. DPR has identified occupational exposure concerns for all three of these pesticides as well as non-occupational exposure concerns for simazine. DPR is reviewing U.S. EPA mitigation actions to address exposure risk. We will also develop mitigation measures for any risks that have not been addressed. For all three pesticides, a complete review of the U.S. EPA mitigation actions and compare against our exposure risk findings by Q3 2025 for all three of the pesticides. Then triage the work for a little bit, develop potential mitigation options for any identify risk not yet addressed, for propanil we are targeting Q3 2026, for propargite we're targeting Q4 2026, and for simazine targeting Q1 2027.

Sulfuryl Fluoride (SF) is fumigant used to control insects such as termites, powder beetles, and bedbugs primarily in commercial and residential structures. Just recently an initial observational study of residential homes fumigation was conducted, specifically looking to see if they're any areas where we can improve management practices to reduce exposure or gas trapping. We are currently reviewing studies to determine any next steps. We are hoping to be able to refine any next steps in the next few months and may conduct additional monitoring later this year. We have completed phase one of the observational study of the residential home post fumigation in Q2 2025. The study results are being reviewed to determine if any next steps are needed in Q3 2025. If needed, a phase two observational study will be conducted in Q4 2026.

Tribufos is an organophosphate registered solely for use as a cotton defoliant. A DPR RCD identified cholinesterase inhibition effects and dermal irritation for most seasonal occupational scenarios. U.S. EPA developed mitigation actions that mitigate exposures that DPR identified. However, risk remained for two seasonal exposure scenarios, one being mixer/loaders supporting ground applications and the second being re-entry for workers conducting irrigation and weeding activities. DPR developed label language to mitigate exposure concerns and will work with registrants on label amendments this year. As noted on the table has completed the review in Q2 of 2024 of U.S. EPA's mitigation actions compared to our exposure risk findings. DPR completed a memo in Q4 2024 on the mitigations options on identified risks that mitigation actions did not address and we intend to meet with registrants about label changes by Q3 2025 and we expect the registrants to submit draft labels for our review and approval by Q4 2025.

DPR has one open rulemaking and one upcoming rulemaking. In May, DPR proposed regulations to update deeper groundwater protection list which contains pesticides that have the potential to pollute groundwater. The public comment period recently closed on July 15th and comments are currently being reviewed. DPR intends to complete the regulations by Q2 2026. This work helps protect California's groundwater that is used for drinking water, especially shallow, domestic wells in agricultural areas. DPR's groundwater protection program is part of the work to continuously evaluate pesticides for risk or impacts to public health or the environment. The second rulemaking is the pesticide decontamination site in eyewash stations. DPR is working on a proposed regulation for pesticide decontamination site and eyewash stations for agricultural and non-agricultural pesticide handlers and at mix and load sites. We intend to develop proposed regulations by Q4 2025, notice that regulatory package by Q2 2026 and then complete rulemaking by Q1 2027.

Committee Comments

No questions from the committee.

Public Comments

Armand Ruby: Will this presentation be available online?

Dr. JT Teerlink, DPR: We typically don't post online but are happy to provide. Please send our team an email at PRECcomments@cdpr.ca.gov.

Mike Zeis, Californian's for Pesticide Reform (CPR): Thanks to JT and Madison for a really good presentation and thanks to DPR for its newly updated website on continuous evaluation. The website is easy to understand and commits DPR to specific deadlines. Congratulations on this important step towards transparency, really nice job.
The website does seem to be missing a few pesticides, including methomyl and naled. Please see my Email about that. My main reason for speaking today is to call for public input into decisions about how much health risk is acceptable. Deciding how much risk is okay is what DPR calls risk management. Risk management decisions are made after DPR completes a risk assessment or a reevaluation. First, DPR scientists determine how many farm workers are getting cancer from a particular pesticide or how many kids who live nearby are getting asthma. Determining how big the risk is can only be done by scientists, but after the scientists have finished. Then somebody else has to decide whether that amount of health risk is okay. In DPR speak, somebody else has to decide whether mitigation is needed. That is not a scientific decision - it's a value judgment. How much health risk should Californians accept in order to keep agricultural jobs or keep our food prices low or keep profits high enough for farmers to make a living? Those are not science-based questions, those are value judgments, decisions about how much health risk is okay affect all Californians. Therefore, DPR should give the public an opportunity to review and comment on DPR risk management decisions to ensure that every time the online website says that DPR will take action, if rulemaking or mitigation is required, every one of those decisions DPR should provide an opportunity for public input. Thank you.

Dr. JT Teerlink, DPR: Thank you for your comments Mike, and I do really appreciate the kind words on our commitment to transparency and getting all this information out.

Kathleen Kilpatrick (Safe Ag Safe Schools and campaign for organic and regenerative agriculture): I want to say yes the website has improved, it's easier to look and see what your progress is about reevaluations and risk assessments, and the state of things. The piece that's missing for me is that it takes so long between the reevaluation where risks are identified and the mitigation. There's often a gap of years. I know living in an ag community and living close to fields, we have some sense of impatience that once a risk has been identified, we want something done sooner rather than later. The other thing about the way the list is composed, is that you went from list of over 80 pesticides to 11. Those 11, they're a range of different kinds of pesticides. For example, there's only one OP on the list. And OPs have a lot of emergent science that identify risks to pregnant women and to child development as well as asthma and other things and when you look at them one at a time, it's impossible to imagine that you would get to the end of all the reevaluations needed. While these pesticides are continuing to be applied in our communities the OPs and the carbamates are in heavy use. Just the whole thing of looking at the chemicals one at a time, as someone who has many years of health care background, I know that when we when we look at medications, we look at ones that have similar mechanism of actions and we look at how they interact with each other and DPR does not really look at the interactions or the cumulative impacts over time and that's a big gap. And I agree with Mike that we are not really prioritizing human health risks. When we look at these pesticides one at a time piecemeal and take forever to get from risk assessment to mitigation and are so many years behind on reevaluations.

Dr. JT Teerlink, DPR: I did hear at least a couple of questions that I want to respond to within that. I think first and foremost in terms of the length of the list, I'll just repeat something I said in my presentation, the 2011 and 2014 lists those were qualitative lists that were put out by DPR's Human Health Assessment Branch. What we're trying to shift to here is what is represented by Department wide current activities. That is responsible for part of the shift in terms of your concerns over any specific pesticide that's not on the list. We're looking forward to the Pesticide Prioritization process and the mechanism for public engagement where we can kind of piece-by-piece look at any of those specific pesticides where things come up. Two more comments, that I just want to touch on that you said. One, we live in a very complex regulatory landscape and there are instances where U.S. EPA has mitigated risks. I think that is the narrative around that which can be challenging. Some of the slides that Madison went through talked about documenting where risks still exist. To, your comment about evaluating multiple pesticides at the same time. One of the things we've been talking a lot about. We definitely recognize that there's an interest in more swift identification of risk and swift mitigation. I'll just note that anytime you're expanding the scope of a risk assessment that duration increases substantially. I take your point that combination of pesticides certainly can be very important, but it's also scientifically very complex. We look forward to discussions on the specific topic with input from the scientific advisory committee that we're currently standing up relative to pesticide prioritization.

Madison Le, DPR: Thank you Kathleen for expressing your concerns and frustration in terms of the timing, particularly on the mitigation side. I'm of course new to the department, but working

really closely with our team and trying to find any efficiencies that we can, and try to move actions forward, particularly on the mitigation-side as soon as feasible as noted by JT. Sometimes as we're working, U.S. EPA, will come out with a registration review or interim decision or mitigation actions and we then we have to crosswalk that to see if there's any remaining risks that aren't addressed and then follow up. So that puts a little bit of a kink into the flow of things. And if any of the mitigations require rulemaking, well, that process is quite something with public comment period and then if there's any litigation involved as well, that also adds to the timeline. All of that said, we hear you. We hear the concerns and again, we will, try to find efficiencies to move things sooner where we can. DPR will utilize the pesticide prioritization process to focus on what matters the most in terms of human health risk and what not.

Sarah Aird, Policy Director with Californians for Pesticide Reform (CPS): I very much appreciate that DPR has been moving in the direction of greater transparency. This was a very comprehensive presentation and a very grateful for that. It's also overwhelming as I think is indicated by the fact that there were no questions from the PREC committee itself. I would like to make sure that all materials like this are provided in advance and publicly posted on your website. I think it's a burden on the public to have to reach out to DPR to request
The second point more to the content of the presentation today is, I remain extremely concerned, from someone who has the advantage of talking to folks around the state and working really closely with our organizers who work directly with community members who are very directly affected by pesticide use, there's very strong concerns around both accountability and for completion of the goals that DPR sets. There's a long history that's only partially reflected in the presentation, of goals getting missed and deadlines being missed. I'm really interested in hearing, how DPR intends to be more transparent about when you're missing deadlines and be more straightforward on how you're going to be resolving those. So for example, chloropicrin, I believe that study we've been waiting on studies for I don't know how long, I wasn't even able to figure out the date, maybe 2017 or 2019, a long time ago. That's true for a lot of the different active ingredients that we're talking about. There's been some delay. I think it's really important to be more transparent about here's our goal, we didn't make it, and here's what we're doing to correct that. I definitely wanted to second, Mike Zeis' and Kathleen Kilpatrick's comments also. My question is, what is DPR doing to ensure that you have sufficient staffing for risk assessments, mitigations, and evaluations. We are extremely concerned that DPR seems to have enough staffing to be approving approximately 13 new active ingredients every single year and yet is not remotely keeping up with goals for evaluations and risk assessments. We have a lot of concerns with the SPM prioritization process right now; the proposal is that we will consider zero to eight active ingredients each year for consideration and doing something about them. With a goal of zero to eight a year, when there are roughly 1,400 current A and many more in the way is just totally inadequate for protecting the communities that we work with that are suffering from increased rates of cancer and learning disabilities, asthma. I would really like to know what DPR is doing and we would be interested in supporting getting greater resources and staffing to really focus on evaluations, risk assessments, and mitigations.

Dr. JT Teerlink, DPR: First related to accountability and tracking, I hear you on the history within the department. I feel strongly that this table is a more concrete shift than the department has had in the past and we're just six months into the first posting. But as I showed during my remarks, there's been slippage on the schedule with different active ingredients. We're communicating that out and noting why that is, so we're committed to that.

Related to your question on sufficient staffing and volume of work, I do think the two are very related, I do want to correct a bit that we are required in statute to open one reevaluation each year up until 2027, at which point it expands to two. So that is the commitment, and not zero. We have a statutory obligation, so at least recognize that that number, but whether one or two still sounds very low. We are looking forward to engagement with the scientific advisory committee on ways that we can move AIs through and where appropriate group them. As I pointed out earlier, the scope of the evaluation is really relevant to the pacing. I just want to reiterate on chloropicrin, you're right - there is a long history with chloropicrin and we've had a significant shift in what is required. A little over a year ago to get at that point, so that we can close out more quickly, we've sensed that shift and level setting to what studies are required, we've been keeping pace and are on track with that level setting. So just want to make that point, and that's detailed within our reevaluation report.

Catherine Dodd, PhD registered Nurse and Scientist (Families Advocating for Chemicals and Toxics Safety, FACTS): We've been involved in pesticide review for I guess six years now and are grateful to the previous speakers. From a family perspective, I want to highlight Mike Zeis' comments. Risks should not be based on economics, but on the value of human health and it's a known fact that our agricultural workers' lifespan is 20 years less than the rest of us. I also want to point out that they're not only being endangered slowly by being poisoned, but also by ICE and we cannot deny that so we have an extra responsibility to protect them. I believe DPR has a history of not keeping up with prioritization lists. As was pointed out in the testimony by Dr. Madison Le, we advocated for AB 2113. We shouldn't have to pass laws to set priorities for departments. We also had to file a lawsuit on 1,3-D, which still has incredibly questionable standards in the most recent set of rules. We shouldn't have to choose between people being exposed to 14 times more in a lifetime exposure if they're in one place then in another. There should be one lifetime exposure, and that should be based on human health, not on economic values. 1,3-D was banned in our country and in our state until quite recently and for the Air Resources Board member who's on this call, it immediately becomes ozone when it hits the air, so it has an extra danger. I want to just say that, if DPR takes about four years to put the mitigation process into place and you're doing you know 0 to 8 evaluations per year (although you're only required to do one by law, which we put in in place) how are you going to move through the backlog? How are you going to speed up this process and will you work collaboratively and respectfully with OEHHA, who has excellent scientists focusing solely on human health.
The 1,3-D is a great example of your disagreement with OEHHA. I urge you to work directly with them. I just want to point out there was a 2021 study of exposure to pregnant women that identified eight active ingredients associated with infant cancer and one of them was classified as

moderate priority. Now, I understand from Dr. Teerlink's recent comments that those were quality, but those are still being used. We're still exposing pregnant women that are going to cause cancer in their children, so I want you to prioritize human health and prioritize this vulnerable population who's being attacked from many areas.

Madison Le, DPR: I want to acknowledge we work very closely with OEHHA. We do rely on them for their expertise in toxicology. We're looking at human health effects. 1,3-D is a joint and mutual rulemaking that was based on OEHHA's recommendation. I think I mentioned earlier we are going through comments received and working through them. So I can't really give a lot of details there. We did commit to having upcoming stakeholder roundtables as we dig through the questions raised by commentors. We are also looking into how do we get additional feedback and how to address some potentially conflicting assumptions or comments that were raised and engage with the public and stakeholders to gather more information and address it. As mentioned before 1,3-D has a requirement for DPR to work closely with OEHHA, so we will continue to evaluate. We have an annual report that we will pull together as part of the prior regulations and identify any additional areas that we need to gather information or add additional protections. There will be opportunity for further engagement. Currently, we are working through open rulemaking so it's little bit difficult again to share too much details at this point. But I just want to acknowledge all of your comments raised on 1,3-D and hopefully we will engage more on that very shortly.

Dr. JT Teerlink, DPR: Thanks for your comments, Catherine.

Mike Zeis, CPR: Does the continuous evaluation website include a complete list of all active ingredients for which DPR is currently conducting risk assessments per se?

Dr. JT Teerlink, DPR: Yes. Our website represents the department's current priorities.

Mike Zeise, CPR: Second question, does the continuous evaluation website include a complete list of all active ingredients for which DPR is currently developing mitigation?

Madison Le, DPR: The short answer is yes. There are potentially a few that we are closing out, developing closeout memos, and upcoming rulemaking. In the upcoming update to the table, we might annotate that for a few of them.

Carolyn Cox: Are the results of the CMTF Study 1 completed earlier this year publicly available regarding chloropicrin?

Dr. JT Teerlink: I don't want to misspeak, so we'll follow up with an answer by email.

Sarah Aird, CPR: Will DPR commit to providing presentations in advance and posting them on the website, so people don't have to ask for them?

JT Teerlink, DPR: We appreciate your recommendation and will review and get back to you after the meeting.

Kathleen Kilpatrick: What happens if a new high-risk pesticide comes up? Has happened with dacthal.

Dr. JT Teerlink, DPR: This is an example that demonstrates when there is a potential for shift in priorities. For those not familiar in the case of dacthal, there was a new study that was required by U.S. EPA, it was evaluated by U.S. EPA and they signaled that there were high risks associated with dacthal and signaled pretty strongly that they were moving towards cancellation. In that case, DPR did not initiate a health risk assessment because essentially we have similar requirements of evaluating scientific studies and that's a case where we understood the direction U.S. EPA was going and they ultimately ended up canceling all uses. I think the answer to the question to a certain extent is, it depends. As new risks are identified for specific pesticides that might result in a shift in priorities and there we would signal, just based on the capacity of our teams and where other things might shift with a milestone to address a really pressing issue.

Mike Zeiss (via e-mail): Why is methomyl not listed as a pending risk assessment, given that a separate DPR webpage shows a draft RCD for methomyl?
Dr. JT Teerlink, DPR: The Continuous Evaluation and Mitigation table represents the Departments current priorities and active work. DPR will continue to assess priorities based on a variety of factors and will update the table at least annually to reflect that.

Mike Zeiss (via e-mail): Why is naled not listed as a pending mitigation, given that DPR Exec has issued two Risk Management Directives calling for naled mitigation?
Dr. JT Teerlink, DPR: DPR's understanding is that USEPA plans to release a proposed interim decision by 2026 that may identify mitigations to address risks identified in their 2020 risk assessment for naled. DPR intends to review USEPA's mitigation actions to inform any additional actions that may be necessary.

5. Agenda Items for Next Meeting

None to report.

The next PREC meeting is scheduled for July 18, 2025, at 10:00 am. This meeting will be held virtually on the Zoom platform and broadcast live on the CalEPA webcast page <video.calepa.ca.gov/>

6. Adjourn