



September 16, 2026

Steven Cliff, Ph.D.
Executive Officer
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Subject: Joint Comments on CARB's Draft Roadmap to Reduce Air Toxics

Dear Dr. Cliff:

The undersigned organizations appreciate this opportunity to submit comments to the California Air Resources Board (CARB) on CARB's Draft Roadmap to Reduce Air Toxics (Draft Roadmap). Our organizations represent the thousands of industrial and commercial businesses that are the economic engine of California, providing goods and services to the public, jobs in the communities where our members' facilities are located, and fees and taxes that support state and local government functions. Our ability to maintain that role will depend in large part on how CARB, the Office of Environmental Health Hazard Assessment (OEHHA), and local air quality management districts approach implementation of the concepts described in the Draft Roadmap.

The Draft Roadmap lays out an unprecedented agenda to "modernize" California's air toxics programs in ways that presume the existing programs have largely failed in their mission to identify, prioritize, assess, and mitigate exposures to the toxic air contaminants (TAC) that present significant risks to public health. While there will always be room for improvement, and there will always be new information that presents new opportunities for fine tuning of existing program implementation strategies, the premise in the Draft Roadmap that the existing programs are fundamentally deficient is not supported by the data CARB has gathered over nearly 40 years of program implementation. At the same time, the concepts presented in the Draft Roadmap are not sufficiently defined or described to discern how CARB intends to translate them into actionable policies and regulations. Based on our review of the Draft Roadmap, we have identified several areas of concern that require further explanation and justification before they are adopted as part of a statewide air toxics strategy.

1. CARB must establish an accurate baseline for the Draft Roadmap by documenting reductions in TACs achieved over the 40-year history of California's TAC Programs.

The availability of new data from facilities that historically did not report air toxics emissions, reassessment of health risks from existing TACs, and identification of new TACs should not be interpreted to mean that CARB, partner agency, and regulated community efforts to date have not resulted in significant risk reductions from exposure to known TACs. On the contrary, CARB documented substantial progress on risk reduction in the 2015 update of the CARB/California Air Pollution Control Officers Association (CAPCOA) Risk Management Guidance for Stationary Sources of Air Toxics. The analysis in that Guidance should be updated to reflect the additional risk reduction achieved over the past 11 years and incorporated into the Roadmap as the baseline against which further progress will be measured.

See Attachment, *Comments on CARB's Draft 2026 Roadmap to Reduce Air Toxics*, (Attachment), including Comment 2.

2. The state's efforts to improve the scientific foundation of its TAC Programs must include OEHHA's work on risk characterization and risk assessment.

The Draft Roadmap focuses predominantly on issues within CARB's regulatory jurisdiction - improving exposure assessment methods, tools, and data. While these issues are important and may deserve more attention than they have received in the past, they may not be the most important issues in terms of the factors that drive risk communication and risk management decisions. Moreover, the state's interest in expediting TAC determinations and regulatory responses should not be achieved through shortcuts in evaluation of the available scientific evidence, such as greater reliance on default assumptions in lieu of filling data gaps or reduced reliance on external scientific peer review by highly-qualified independent experts. Any new risk characterization and risk assessment tools employed by OEHHA should advance the practice of risk assessment toward more accurate and reliable predictions of risk to inform more effective risk communication and risk management decisions by CARB and local air districts.

See Attachment, including Comments 1, 3, 8, 11, 13, 17, 18, 21, 28, 30.

3. The Roadmap should clarify how CARB intends to use CalEnviroScreen to inform cumulative risk assessment policy and facility-level regulatory decision making.

CARB argues that one of the shortcomings of the Air Toxics Hot Spots Program is that it only evaluates risks from individual facilities and proposes to develop new tools to evaluate cumulative risk from multiple sources at the community level. CARB vaguely acknowledges the many complexities and uncertainties inherent in cumulative risk assessment, yet it provides very little information regarding what policies, guidelines, and procedures it envisions to model the health impacts from all the sources of air toxics in a community, and what methods it is contemplating to measure the health benefits of reducing combined air toxic emissions. Nor does CARB discuss how cumulative risk assessments would be used to inform regulatory decisions impacting individual facilities that may be minor contributors to community-level risks. One of the few insights CARB does provide in terms of how it might approach the process of evaluating cumulative risks is to “build on existing ... screening tools such as CalEnviroScreen.” We request that CARB clarify how it intends to use CalEnviroScreen or any other qualitative screening tools to inform cumulative risk assessment policy and facility-level regulatory decision making. These tools should not be used in lieu of scientifically rigorous assessments to support more expedient TAC identification or prioritization of emission reduction strategies.

See Attachment, Comment 29.

4. Public engagement and future program decisions should be based on careful analysis of reliable evidence and data.

Public engagement and future program decisions should be based on careful analysis of reliable evidence and data, not speculation about hypothetical risk estimates derived from incomplete or inaccurate information. CARB asserts on pages 16 and 17 of the Draft Roadmap that “the average estimated excess cancer risk from acrolein is approximately 1,300 in a million statewide” and “excess cancer risk from ethylene oxide is estimated to be 980 in a million statewide.” CARB further asserts that these cancer risk estimates “reflect the best available science” and repeatedly cites to the ongoing work on these two chemicals as a model for its air toxics program reform agenda.¹ However, OEHHA’s process to develop Inhalation Unit Risk factors (IUR) for these chemicals is not complete; neither OEHHA proposal has been subject to external scientific peer review and public comments identify substantial deficiencies in OEHHA’s analyses for both chemicals. CARB also

¹ For example, on page 32, CARB states that “Recent collaboration on new health values for ethylene oxide and acrolein shows what is possible: early engagement of technical experts, faster scientific review, and meaningful community involvement that builds trust, transparency, and public understanding of both risks and regulatory processes.”

separately acknowledges that these estimates “are based on limited air monitoring data with known limitations and notable uncertainties.” CARB should refrain from making alarming claims about high risks from ambient exposures to chemicals that may prove to be unfounded by more complete and scientifically validated information. Such claims are counter-productive and contrary to the core principles CARB outlines in the Introduction to the Draft Roadmap.

See Attachment, including Comments 1, 3-16, 21, 22, 25, 26, 28, 30.

5. CARB should acknowledge that California’s air toxics programs will be operating in a budget-constrained environment for the foreseeable future.

This reality necessitates a regulatory focus on the TACs that present the greatest risks to sensitive populations, vulnerable communities, and the general public. This approach should extend to existing TACs where new scientific information indicates that earlier risks assessments either underestimate or overestimate potential health risks, to allow CARB and its partner agencies to allocate limited resources as necessary to maximize the public health benefit of future investments in risk assessment, risk communication, and risk management.

See Attachment, including Comments 2, 19, 20, 30.

6. The Roadmap should clarify that CARB will ensure that information it shares with community groups and the public is accurate, reliable, and includes necessary context.

CARB cites lessons learned from implementation of AB 617 on page 27 as an opportunity to engage community groups in identifying emerging air toxics issues and helping regulatory agencies prioritize emission reduction strategies. CARB also emphasizes on pages 32 and 33 the need to achieve greater transparency through development of new tools to increase public access to information, including new information about individual sources. CARB must balance these goals against the need to provide accurate and reliable information that places individual facility emissions and risk into context with health risks from exposure to other anthropogenic and natural sources of TAC emissions in a given community. Information about individual facilities taken out of context may be misused to support risk reduction measures aimed at high profile sources that do not mitigate the actual risk drivers in a given community.

See Attachment, including Comments 1, 3-17, 21-28, 30.

7. CARB should encourage early stakeholder engagement in its development of an prioritization framework.

We generally agree with CARB's stated goal on page 38 to develop "an effective and transparent method for prioritizing our efforts so that all our partners are on the same page and understand why we are doing things in a particular order." We appreciate CARB's commitment to engage industry and other stakeholders in this process, and we look forward to working with CARB to develop the Toxics Decision Framework (TDF). We encourage CARB to share any preliminary information it may have already developed in support of an effective framework to encourage early stakeholder engagement in this process.

See Attachment, including Comments 14, 20, 30.

These and other comments are addressed in greater detail in the Attachment.

During the August 25, 2026 public workshop on the Draft Roadmap, CARB staff stated that CARB would release a "final draft" for public comment on October 9, with a 30-day comment period running through November 9, 2026. This timeframe does not appear to provide adequate time for CARB staff to carefully review, consider, and revise the Draft Roadmap in response to public comments received by the initial comment deadline of September 16, 2026. We are also concerned by CARB's characterization of the next draft as "final," which implies that CARB does not intend to consider and make changes to the revised Draft Roadmap in response to comments received during the October 9 to November 9 public comment period. Public participation on the Draft Roadmap must be more than a performative exercise. Staff must be open to feedback from stakeholders and the general public and to revising the Draft Roadmap in response to that input. We request that CARB and its partner agencies commit to working with this coalition and other stakeholders to develop a second public review draft of the Draft Roadmap that incorporates changes in response to stakeholder comments. We also ask that CARB confirm that its proposed October 9 release date for second draft is a goal, which may change if needed to provide sufficient time for CARB staff to meaningfully respond to all substantive public comments. If you have any questions, please do not hesitate to contact me at (916) 594-6540.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jon Kendrick".

Jon Kendrick, Policy Advocate
California Chamber of Commerce



Michael Snell, President
African American Farmers of California



Tim Shestek, Senior Director, State Affairs, Western Region
American Chemistry Council



Lacy Schoen, President and CEO
Brea Chamber of Commerce



Bill La Marr, Executive Director
California Alliance of Small Business Associations



Russell Snyder, Executive Director
California Asphalt Pavement Association – CalAPA



Rodney Pierini, President & CEO
California Automotive Wholesalers Association



Nick Cammarota, Sr. Vice President & General Counsel
California Building Industry Association



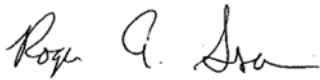
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California Citrus Mutual



Adam Harper, Senior Director of Policy
California Construction and Industrial Materials Association



Roger Isom, President/CEO
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Alessandra Brichetto, Senior Director, Government Affairs
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California Manufacturers & Technology Association



James Simonelli, Executive Director
California Metals Coalition



Matt Sutton, Senior Vice President, Government Affairs & Public Policy
California Restaurant Association



Rick Tomlinson, President
California Strawberry Commission



Nick Chiappe, Vice President of Government Affairs
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Robert Verloop, Executive Director/CEO
California Walnut Commission



Bret Schanzenbach, President & CEO
Carlsbad Chamber of Commerce



Lisa Johnson, Executive Director
Chemical Industry Council of California

/S/

Richard Atmore, Chair
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Tim Gramling, CEO/President
Corona Chamber of Commerce



Raully Butler, Executive Director
Council of Business and Industries



Brendan O'Donnell, President & CEO
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Janelle Capra, President and CEO
Greater Bakersfield Chamber of Commerce

/S/

Brandon Marley, President & CEO
Greater Coachella Valley Chamber of Commerce



Mark Creffield, President/CEO
Greater High Desert Chamber of Commerce



Mark Hughes, Executive Director
Industrial Association



Jack Monger, CEO
Industrial Environmental Association



Tracy Leach, Director
Kern Citizens for Energy



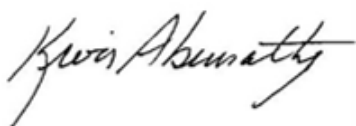
Melinda Palmer, Vice President of Regulatory and Public Affairs
Kern Energy



Jeremy Harris, President/CEO
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Carlos Singer, SVP and Chief Policy Officer
Los Angeles Area Chamber of Commerce



Kevin Abernathy, General Manager
Milk Producers Council



Manuel Cunha, Jr., President
Nisei Farmers League



Evan Sanford, CEO
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Chris Thorne, Chief Executive Officer
San Diego Business Chamber



Chris Cate, President and CEO,
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Vance Ahlem, President
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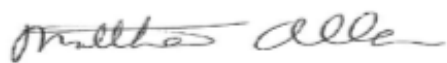
Sarah Wiltfong, Chief Advocacy and Public Policy Officer
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Donna Duperron, President & CEO
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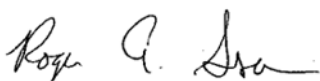
Matthew Allen, Vice President, State Government Affairs
Western Growers Association



Krysta Wanner, Director of Government Affairs
Western Propane Gas Association



Zachary Leary, Chief Lobbyist
Western States Petroleum Association



Roger Isom, President/CEO
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/S/

Anthony Johnson, Government Affairs Representative
Yorba Linda Chamber of Commerce

Attachment

cc: Lauren Sanchez, Chair, California Air Resources Board
CARB Members
Kristine Thayer, Ph.D, Director, Office of Environmental Health Hazard Assessment
David Edwards, Ph.D, Chief Deputy Director, OEHHA
Edie Chang, Deputy Executive Officer, CARB

Attachment

Comments on CARB's Draft 2026 Roadmap to Reduce Air Toxics

September 16, 2026

Introduction

Section II - Core Principles

1. Science-Based (page 6) – The first and most important step in establishing a sound scientific basis for risk management decisions is accurate risk characterization. The California Air Resources Board (CARB) should acknowledge in the Draft 2026 Roadmap to Reduce Air Toxics (Draft Roadmap) that the presumption that the Office of Environmental Health Hazard Assessment's (OEHHA) health reference levels are based on the best available science may not be appropriate in every case, particularly for health reference values that have not been formally adopted following independent scientific peer review and for older values that are based on outdated and unreliable scientific data and methodologies. The draft inhalation unit risk factors (IURs) for acrolein and ethylene oxide are based on selective interpretations of available health effects research and nested assumptions that are likely to overestimate health risk, perhaps substantially. As discussed in comments submitted by this coalition to OEHHA on July 29, 2026,¹ the draft acrolein IUR is based on a single animal study that combines limited tumor incidence data from different tissues to amplify the cancer dose response. The revised draft ethylene oxide IUR makes indefensible assumptions about historical worker exposures and relies on visual fitting of default models using aggregated data to justify a highly improbable cancer dose response that cannot be replicated in biological systems. Both of these draft IURs disregard current cancer risk assessment guidelines. The existing IUR for hexavalent chromium is 40 years old and based on a single 1975 study that has been thoroughly superseded by more recent research, a fact that OEHHA acknowledged as far back as 2011, and which the U.S. Environmental Protection Agency (USEPA) confirmed in a 2024 update of the IUR in its

¹ See OEHHA, Public Comments, Comment Submissions – Inhalation Unit Risk Factor (IUR) for Ethylene Oxide, [Comment - 22024 - California Chamber of Commerce and coalition partners](#), July 29, 2026; OEHHA, Public Comments, Comment Submissions – Inhalation Unit Risk Factor (IUR) for Acrolein, [Comment - 22023 - California Chamber of Commerce and coalition partners](#), July 29, 2026.

Integrated Risk Information System (IRIS) hexavalent chromium health assessment.² It is impossible for stakeholders to have confidence that CARB is basing risk management decisions on “objective, provable facts and data” when the underlying risk characterizations driving those decisions are not. The Roadmap should confirm that, if CARB is aware of a reasonable possibility that a health reference value is not based on the best scientific data and methods currently available, CARB will request OEHHA to derive a new or updated value and will defer regulatory action until OEHHA formally adopts that new or updated value.

2. Transparent (page 7) – CARB's commitment to transparency requires a complete disclosure of risk reduction achieved through implementation of California's air toxics laws from their inception in the 1980s to the present time. Identifying additional toxic air contaminants (TACs), even if they are ultimately determined to pose relatively high risks, does not diminish the emissions reductions and corresponding health benefits achieved over the past several decades. When CARB and the California Air Pollution Control Officers Association (CAPCOA) updated the Air Toxics Hot Spots Risk Management Guidance for Stationary Sources in 2015 (2015 Risk Management Guidance),³ the agencies recognized the importance of establishing a baseline to help the regulated community and the public understand the potential impact of recent changes made by OEHHA to the Hot Spots Risk Assessment Guidelines⁴ on assessment and regulation of TAC emissions from various sources. The 2015 Risk Management Guidance documented an approximate 75% reduction in statewide emissions and health impacts between 1990 and 2015, attributed to the Toxic Air Contaminant Identification and Control Act (AB 1807, 1983), the Air Toxics Hot Spots Information and Assessment Act (AB 2588, 1987), the Children's Health Protection Act (SB 25, 1999) and local district air toxics programs⁵:

² See Coalition Letter to Elizabeth Scheehle, Division Chief, Research Division, and Bonnie Holmes-Gen, Branch Chief, Health & Exposure Assessment Branch, CARB, regarding “Petition for Review of the Toxic Air Contaminant Human Health Assessment for Hexavalent Chromium Pursuant to Health and Safety Code Section 39662(e),” June 30, 2025.

³ California Air Resources Board and California Air Pollution Control Officers Association, Risk Management Guidelines for Stationary Sources of Air Toxics, July 23, 2015.

⁴ Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, Section 1.6, pages 1-5 - 1-7.

⁵ California's 35 local Air Pollution Control Districts (APCDs) or Air Quality Management Districts (AQMDs) are responsible for addressing emissions from stationary sources through permits and local rules. Local district measures to protect against health impacts in communities include, for example, imposition of air toxics permitting thresholds and air toxic emissions reductions requirements. (CARB, Current Air District Rules, available at <https://ww2.arb.ca.gov/capp/cst/tch/current-air-district-rules>.)

“Over the last 25 years, California has successfully reduced statewide emissions and related health impacts from exposures to air toxics by approximately 75 percent. During this same period the economy as measured by the California Gross Domestic Product grew by 83 percent and the number of residents and vehicles increased by approximately 30 percent each, roughly 9 million and 8 million, respectively ... Several programs at both the State and District levels, along with investments by industry in cleaner operations and technology, and input by the public and environmental community, are the reasons for this success.”⁶

The 2015 Risk Management Guidance documents the many measures implemented pursuant to these laws and programs that helped to achieve this unquestionable success, and it recognized that “The State’s climate goals are also propelling the development and introduction of zero-emission technology and renewable energy in all sectors that will have co-benefits for air toxics and public health.”⁷ These measures are not static – they either incorporate compliance schedules designed to achieve additional emissions and risk reduction over time, or they are periodically revisited and updated for that purpose.

Moreover, many legislative initiatives and new regulatory requirements targeting TAC emissions have been adopted in the 11 years since the Risk Management Guidance was last updated. Among the more prominent statewide examples is the Community Air Protection Program (CAPP), established by AB 617 (C. Garcia, 2017), which created new regulatory and incentive-based mechanisms to identify and mitigate air toxics emissions at the community scale. Community Air Monitoring and Emissions Reduction Programs (CAMP/CERP) have been or are in the process of being implemented in 19 communities and CARB is actively working to expand the CAPP into an additional 64 communities. In addition to ongoing air district implementation of risk-based air toxics new source review and existing source risk assessment, public notification, and risk reduction rules and policies,⁸ CARB has promulgated 26 Airborne Toxic Control Measures regulating specific sources of TAC emissions on a statewide basis,⁹ and air quality management districts continue to develop technology-forcing rules targeting specific source categories to further reduce TAC emissions in impacted

⁶ California Air Resources Board and California Air Pollution Control Officers Association, Risk Management Guidelines for Stationary Sources of Air Toxics, July 23, 2015, page 3.

⁷ *Id.*, page 9.

⁸ See for example South Coast Air Quality Management District Rules 1401 and 1402, and Bay Area Air District Regulation 11, Rule 18 and Regulation 2 Rule 5.

⁹ See: [Airborne Toxic Control Measures | California Air Resources Board](#).

communities.¹⁰ Consequently, one can reasonably expect that substantial additional emissions and risk reduction have been achieved between the release of the updated Risk Management Guidelines and the Draft Roadmap.

Yet, except for a limited discussion of the many measures implemented to reduce health risks from exposure to diesel exhaust particulate and a few other superficially described examples, the Draft Roadmap fails to acknowledge, much less quantify, the emissions and risk reduction achieved over a time horizon that spans nearly 40 years. Rather than establishing a clear baseline against which current priorities can be re-evaluated and further progress can be measured, CARB has instead elected to paint a dire picture of explosive growth in emissions and health risk that stands in stark contrast to the available data. Furthermore, CARB's posture in the Draft Roadmap promotes an atmosphere of uncertainty and fear that is likely to drive politically expedient prescriptions to perceived problems rather than targeted and effective solutions to well-defined problems.

As CARB observes repeatedly in the Draft Roadmap, neither CARB, nor the air districts have discretionary resources to pursue many of the recommendations in the Draft Roadmap. Thus, CARB should revise the Draft Roadmap to replace biased language with an honest analysis of the significant emission reductions that have been achieved to date. CARB's analysis should include an inventory of federal, state, and local regulations governing emissions of TACs and hazardous air pollutants and the sources they regulate, and quantify the combined emission reductions these regulations have achieved over the past 40 years and the continuing emissions reductions the regulations are expected to achieve going forward. CARB should also quantify co-pollutant emissions benefits achieved and expected to be achieved through regulation of criteria pollutants and greenhouse gas emissions within the same timeframes. The revised Draft Roadmap should start from this regulatory baseline and focus on how best to utilize available resources to support strategies that will more accurately characterize TAC emissions and emerging health risks and more effectively prioritize risk management measures based on the best available science and current risk assessment methodologies to achieve meaningful reductions in TAC emissions and corresponding health risks.

¹⁰ Air districts have collectively developed hundreds of technology-forcing rules to reduce emissions of TACs from various stationary sources along with cross-jurisdictional source assessment and regulatory frameworks for small businesses that are part of the same industrial class, such as industrywide risk assessment guidelines for retail gasoline outlets, auto body shops, and stationary diesel generators developed through the California Air Pollution Control Officers Association (see: <https://ww2.arb.ca.gov/our-work/programs/ab-2588-air-toxics-hot-spots/hot-spots-risk-assessment>).

Section III - Background

3. *“Compounds identified as TACs typically have no level of emissions below which harmful impacts are not expected to occur ...”* (page 9) - This statement is false and should be corrected or deleted. All non-carcinogens are recognized as having thresholds below which adverse effects are not expected to occur, and there is a growing body of evidence indicating that some carcinogens may also have adverse effect thresholds, where tumors are a result of high doses causing repeated cycles of cell injury and repair. This process is explicitly recognized in USEPA's 2005 Guidelines for Carcinogen Risk Assessment.¹¹ The fact that OEHHA refuses to acknowledge thresholds for carcinogens even when the weight of evidence indicates a threshold mode of action is further cause for concern that at least some of its health reference values may not be based on sound science, much less the best available science.
4. *“But it’s also important to understand that all air toxics are harmful and can cause serious impacts like cancer or other serious illnesses.”* (page 9) - This statement is misleading and should be revised to clarify that all air toxics can be harmful and can cause serious illness **depending upon the level and duration of exposure**.

Why We Must Act

Section I - Communities are Profoundly Burdened by Air Toxics and Face Serious Health Impacts

5. CARB’s summary of potential community impacts from specific source categories (page 12) lacks balance and fails to identify the emission reduction measures already in place that serve to mitigate health risks from these sources. For example, in the summary of Petroleum Production and Refining sources, CARB states that “thousands of active and abandoned oil wells sit next to homes, posing health risks that have not been sufficiently studied” and that these sources “have the potential to emit air toxics, including acrolein, benzene, ethylbenzene, hydrogen sulfide, and heavy metals.” The former statement is attributed to the California Council on Science and Technology, but it is not accompanied by actual monitoring data or other evidence demonstrating that the measures that have already been implemented to address potential health risks from these sources, including recently enacted laws and regulations that require

¹¹ United States Environmental Protection Agency, Guidelines for Carcinogen Risk Assessment, March, 2005, https://www.epa.gov/sites/default/files/2013-09/documents/cancer_guidelines_final_3-25-05.pdf.

enhanced leak detection and repair for existing wells and impose a 3,200-foot setback from sensitive receptors for well permitting, have not sufficiently mitigated potential health risks. CARB also does not cite any evidence indicating that properly abandoned oil wells have been found to emit the identified TACs. Such statements disregard the heightened regulatory attention these sources continue to receive and encourage the misperception that they are essentially uncontrolled. We request that CARB expand this discussion to describe the current regulatory baseline against which these sources should be evaluated to determine whether they continue to present significant health risks that require further mitigation.

6. The final Roadmap should clearly distinguish community concerns that may be related to visible emissions from measured exposures and demonstrated health risks. CARB should also acknowledge the extensive permitting requirements, monitoring programs, flare minimization requirements, reporting obligations, and enforcement authorities that already apply to refinery safety flaring. Without this context, readers may incorrectly conclude that flaring emissions are largely uncontrolled or insufficiently regulated.

Section II - Non-diesel Air Toxics Are Emerging Rapidly and Eclipsing Previously Understood Risks

7. *“Communities are facing pollution burdens that are significantly underestimated and not well understood ...”* (page 15) - In the interest of increasing transparency, CARB should use more neutral language and discuss how uncertainty is addressed in the context of establishing health risk estimates. It is equally if not more likely that health risks associated with established TACs are overstated by virtue of the multiple layers of conservatism incorporated into risk estimates. This is particularly likely for TACs that were identified in the early years of state air toxics program implementation when risk assessment methods were relatively crude and the available data was limited, necessitating greater reliance on conservative assumptions to avoid underestimating health risks.

OEHHA’s 2015 Air Toxics Hot Spots Program Risk Assessment Guidelines explicitly recognizes the potential for risk assessment to overestimate, rather than underestimate, health risk. For example, the Guidelines include a discussion of uncertainty in risk assessment¹² which states:

¹² *Id.*, Section 1.6, pages 1-5 through 1-7.

“The assumptions used in these guidelines are designed to err on the side of health protection in order to avoid underestimation of risk to the public. Sources of uncertainty, which may overestimate or underestimate risk, include: 1) extrapolation of toxicity data in animals to humans, 2) uncertainty in the estimation of emissions, 3) uncertainty in the air dispersion models, and 4) uncertainty in the exposure estimates.”

Among the many assumptions typically incorporated into health reference values and health risk assessments to address areas of uncertainty in the available science include: selecting key studies and points of departure for health risk estimates that focus on precursor (upstream) health effects rather than actual adverse effects; using benchmark response rates calibrated to a small percentage of the general population (i.e., 5%); including multiple uncertainty factors (UF) to account for extrapolation from high dose effects observed in experimental animals or workers to theoretical effects in humans exposed to much lower levels, to account for variable sensitivity within the general population (typically separate UFs for toxicokinetics and toxicodynamics), and to account for uncertainties in the underlying data base; and using default age-dependent exposure adjustment factors to account for differences in breathing rates and body weight in the general population. The latter assumptions were the primary focus of the 2015 update to the Air Toxics Risk Assessment Guidelines. OEHHA incorporated age sensitivity factors (ASF) based on the presumption of increased sensitivity to carcinogens during early life exposures, and age-specific breathing rates that replace the prior default 80th percentile daily breathing rate (DBR) with a 95th percentile DBR for age groups less than 2 years old. At the time, CARB and OEHHA predicted that these changes would increase risk estimates by a factor of 2-3, but we understand that the actual increase for some facilities has been greater than these initial predictions.

The combined effect of these default assumptions is, by design, more likely to overestimate than underestimate health risks. For that reason, OEHHA clarifies in the 2015 Air Toxics Risk Assessment Guidelines that “Risk estimates generated by an [Health Risk Assessment] should not be interpreted as the expected rates of disease in the exposed population but rather as estimates of potential for disease, based on current knowledge and a number of assumptions.”¹³

¹³ *Id.*, Section 1.6, page 1-6.

Ongoing advances in risk assessment methodology and data for individual TACs can allow greater precision and accuracy in risk estimates. These innovations should be employed in developing new health risk estimates to increase stakeholder confidence in the risk assessment process, to ensure proper allocation of limited agency and private sector resources, and to increase the effectiveness of risk management decisions predicated on health risk estimates.

8. *“While these cancer risk estimates [for acrolein and ethylene oxide] reflect the best available science ...”* (page 17) - The OEHHA process to develop new IURs for acrolein and ethylene oxide is not complete and neither OEHHA proposal has been reviewed by the Scientific Review Panel on Toxics Air Contaminants (SRP). Public comments also identify substantial deficiencies in OEHHA's analyses for both chemicals. Because the initial draft estimates are subject to change, it is premature for CARB to assert that they “reflect the best available science.” Moreover, CARB should refrain from making alarmist statements about the magnitude of risks from ambient exposures to existing or emerging air toxics based on information it knows to be incomplete, inaccurate, and not properly validated.

Section III - Risk Cannot be Addressed and Responsible Agencies Cannot Be Held Accountable Without Accessible, Understandable Information About Air Quality

9. New Emissions Data (page 18) - These figures require further clarification and context. In the abstract, they are likely to encourage the misperception that health risks from air toxics are much more widespread than previously indicated. As CARB is well aware, the fact that a facility may now be reporting air toxics emissions for the first time does not mean that it is exposing any nearby receptors to concentrations of TACs that constitute a significant health risk. CARB should explain the process through which this data will be considered to determine whether a reporting facility should prepare a health risk assessment, and if so, whether that assessment indicates a risk that warrants any additional regulatory response. CARB should also explain how and within what timeframe it will evaluate health risks at so many more locations, especially when it acknowledges not having sufficient resources to do this work, a condition that is likely to persist as the state predicts multi-billion-dollar structural budget deficits starting in fiscal year 2027-2028 and continuing through the next several budget cycles.¹⁴

¹⁴ See Legislative Analyst's Office, [The 2026-27 Budget: California's Fiscal Outlook](#) (Nov. 19, 2025) [“Starting in 2027-28, we estimate structural deficits to grow to about \$35 billion annually due to spending growth continuing to outstrip revenue growth.”].

10. Improving How We Communicate and Share Information (page 19) – The Draft Roadmap demonstrates that CARB must approach this task more carefully to avoid contributing to or amplifying misinformation. For example, sweeping statements about high risks from ambient exposures to two chemicals (acrolein and ethylene oxide) based on draft assessments that have not been peer reviewed and limited monitoring data that CARB acknowledges is flawed, contributes to a false sense of alarm that may prove to be unfounded by more complete and scientifically validated information.

Section IV - Science is Not Keeping Pace with Risk Identification and Reduction Needs

11. *“As health science advances, new information continues to emerge about chemicals that may cause cancer or other serious health effects.”* (page 20) - CARB and OEHHA also need to revisit outdated health reference values to ensure that risk is accurately characterized and limited resources are properly allocated to measures designed to mitigate the most significant risks. Updating outdated values when warranted by more recent and robust scientific information and risk assessment methodologies will also increase stakeholder confidence that future regulatory actions will result in actual, not theoretical, risk reductions.
12. Air Toxics; Emissions Inventory (page 20) - The uncertainties discussed in these subsections are an important consideration in CARB's external communication regarding potential health risks from exposures to existing and emerging TACs. More specifically, CARB should avoid speculation about potential health risks when the impact of the substantial uncertainties in existing inventory data, emissions measurement, and source attribution methods, which CARB acknowledges exist, has not been quantified or resolved.
13. Health Guidance Value Development (page 21) - OEHHA must ensure that any expedited methods it uses to develop new health guidance values, such as “New Application Methods (NAM) to deal with chemicals that lack conventional toxicity test data” (page 31), do not increase reliance on default assumptions in lieu of data that could be used to more accurately predict health risk. The figures on page 18 indicate that over-reliance on default assumptions and screening-level risk characterization approaches would exponentially expand the number of impacted facilities and the scope of CARB and air district regulatory responsibility. This trend would not be sustainable for regulatory agencies or for the regulated community and it would be counter-productive for communities by virtue of triggering many more public notifications than would likely be required under a more scientifically rigorous approach. Public notifications of involuntary exposures and risks tend to trigger

emotional responses - anxiety, fear, anger - and it is reasonable to expect communities will demand immediate regulatory actions to reduce the identified risk. If CARB intends for this dynamic to play out on a much larger scale, it must ensure that the health reference values that drive these actions are as accurate as the best available scientific data and methods will allow.

Section VI - Policy Implementation Has Not Evolved with Today's Risk Challenges

14. *“California’s process for formally identifying Toxic Air Contaminants includes important scientific review and public input, but it can take significant time and resources.”* (page 22) - The time and resource investment in external scientific peer review and public engagement are critical to ensure the regulatory actions that follow from a TAC listing or development of a health reference value are justified in terms of the strength of the scientific evidence upon which they are based, the health benefits they would achieve, and the inevitable operational and economic burdens they would impose on affected sources and the communities in which they operate. Whatever changes CARB may be contemplating for existing processes should preserve these critical programmatic elements.
15. *“... now that the [Hot Spots] program has matured, it could be beneficial to establish statewide baselines to complement local policies.”* (page 23) - CARB does not define what types of “statewide baselines” it is contemplating. If it is referring to standardizing risk-based action levels, it should first recognize that existing state guidance and air district regulations already establish a substantial foundation for statewide standardization. The 2015 update to the CARB/CAPCOA Air Toxics Risk Management Guidance establishes thresholds for new and modified source permitting and existing source review.¹⁵ The table in Appendix G summarizes Permitting Levels for Various District Programs. The table in Appendix H summarizes AB 2588 District Prioritization Scores and Risk Threshold Values. While there is some variation among air districts, there is remarkable consistency in thresholds for installation of air toxics best available control technology (T-BACT), permit approval, facility prioritization, and public notification.¹⁶ These risk-based action levels should inform any effort by CARB to establish statewide baselines for risk management decision making. Moreover, the circumstances that drove the decision to preserve district discretion to set different

¹⁵ California Air Resources Board and California Air Pollution Control Officers Association, Risk Management Guidelines for Stationary Sources of Air Toxics, July 23, 2015: Section IV (Permitting New and Modified Sources Guidance) on page 19 establishes statewide risk-based thresholds for T-BACT and not-to-exceed limits for permit approval. Section V (Hot Spots Guidance) on page 20 establishes not-to-exceed limits for Risk Reduction Audits and Plans.

¹⁶ *Id.*, pages 41-46.

risk-based action levels in OEHHA's 2015 Air Toxics Risk Assessment Guidelines should be carefully considered before they are replaced by "statewide baselines." Alternatively, CARB could consider adopting acceptable risk ranges for each of the decision points addressed in the 2015 Air Toxics Risk Assessment Guidelines.

16. *"Current air toxics control strategies often only focus on a single air pollutant, source, or facility at a time."* (page 23) - Existing AB 2588 health risk assessments already account for cumulative health risks from multiple TACs on a facility-wide basis. CARB has not provided any indication of how it will address cumulative risk from all sources in a given geographic area, or how those assessments would be used to inform regulatory decisions. This concept is fraught not only with scientific complexities, but with legal complexities and practical realities related to the ability of a given facility to control emissions from sources it does not own or operate. Policy changes that result in extreme outcomes for regulated facilities, such as temporary curtailment of operations or permit denial, where localized emissions and health risk is driven in part by sources the facility cannot control, would be detrimental to the facility, the workers it employs, and to the local economy, without providing a meaningful health benefit to the community. Such outcomes would disregard the commitment in CARB's Air Toxics Program mission statement to "recognize and consider effects on the economy," and should be strictly avoided.
17. Case Study – Auto Body Shops (pages 23 and 24) - CARB points to AB 617 as an example of how "engagement-first processes can surface air toxics concerns that traditional regulatory frameworks may overlook" and advocates for "community-prioritized emission reduction strategies." While we appreciate the importance of consistent community engagement in identifying, evaluating, prioritizing, and regulating emerging TACs, community perceptions about health risks from exposure to TACs will need to be grounded in reliable monitoring data, scientifically defensible and reproducible health reference values, and source-specific risk assessments before any new regulatory actions are taken.

We also note that as a part of establishing the regulatory baseline for the final Roadmap (see comment 2), CARB should clarify that statewide and local air toxics regulations have already been implemented to control TAC emissions from auto body shops, including the Airborne Toxic Control Measure for Emissions of Hexavalent Chromium and Cadmium from Motor Vehicle and Mobile Equipment Coatings¹⁷ and several air

¹⁷ <https://ww2.arb.ca.gov/our-work/programs/coatings/automotive-refinishing>.

quality management district regulations (e.g., SCAQMD Rules 1151 [Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations] and 1171 [Solvent Cleaning Operations]).

Our Path to Success

18. *“Strengthen the scientific foundation for air toxics work”* (page 25) - We agree that CARB and OEHHA must strengthen the scientific foundation for air toxics work. This effort should not be limited only to refinement of monitoring methods, emissions inventories, and source apportionment, but should begin with application of new scientific research and current risk assessment methods to discern as precisely as possible the potential health risk from exposure to a given TAC. Accuracy and confidence in health risk predictions should be prioritized over expediting the investigative process. Existing health reference values should be updated where more recent scientific evidence indicates the existing value is no longer a reliable basis for risk assessment. OEHHA should also prioritize data-driven health reference values over reliance on default assumptions and derivation methods.
19. CARB identifies in the bullets on page 25 several impediments in existing air toxics regulatory programs related to the pace and resource-intensive nature of existing processes, but it does not describe what strategies it is considering to “Modernize existing programs under AB 2588 and AB 1807” other than to “to reestablish a stronger, more unified, and more proactive Air Toxics Program that identifies the pollutants that pose the greatest health risks, closes critical scientific gaps, and acts to reduce and prevent harm to communities.” These statements are nothing more than policy themes. To demonstrate how CARB will put these policy statements into practice, the Draft Roadmap must provide more definition and a clearer indication of CARB’s preliminary thinking on how best to address them. This should include identification of specific deficiencies in existing programs, a discussion regarding how those deficiencies affect public health outcomes, and, if CARB anticipates additional resources or legal authorities will be needed, a discussion of why existing resources and authorities are inadequate. Without that problem statement, the public cannot evaluate whether CARB’s modernization concepts are necessary, appropriate, or likely to improve health outcomes.

Section II - Build and Maintain Relationships with Communities, Tribes, Academics, Industry, and Other Stakeholders

20. Industry (page 28) - We support CARB's stated goal to work with industry to "develop practical strategies that protect public health while recognizing real-world costs and

implementation needs.” This balance will become increasingly critical as new TACs and emissions sources are identified and the scope of facility-wide and community-level risk assessments expands. CARB and the air districts will need to guard against the potential for the Roadmap to become a driver for unwarranted facility curtailments, permit denials, and facility shutdowns.

Section III - Strengthen the Scientific Foundations for Air Toxics Work

21. We agree that a strong scientific foundation "is essential to accurately identify exposures and take decisive, effective action" (page 28). We also agree that monitoring, emissions inventories, modeling, and research are important components of building an adequate scientific foundation. However, they are not the only components, nor are they necessarily the most important components in terms of the factors that drive risk estimates and the regulatory decisions that follow from them. Any discussion of strengthening the scientific foundation that does not include a specific focus on OEHHA's work in (a) leveraging the best available health effects science to develop health reference values and (b) incorporating best practices and guidelines in health risk assessment to help inform accurate and effective risk communication and risk management, is incomplete. Consistent with the goals stated in Section I on page 26 (Strengthen Coordination with Air Districts and Other Agency Partners), to ensure that decisions are based on the best available information and to gain public trust in air toxics regulatory programs, the Draft Roadmap should be expanded to address all aspects of OEHHA's role in building a defensible scientific foundation for future regulation.

22. Monitoring (page 29) - As it has done in its public-facing FAQs on the Statewide Mobile Monitoring Initiative (SMMI),¹⁸ CARB must communicate the limitations of currently available mobile monitoring technologies and other non-traditional methods such as hand-held sensors deployed in some AB 617 community air monitoring programs. These technologies may have a role to play in screening for potential air quality problems, but they generally do not produce data that is sufficiently reliable for regulatory purposes. It remains to be seen whether some of these technologies may evolve to the point where they can substitute for or supplement fixed, regulatory-grade monitoring systems. These are some of the many issues CARB will need to address when it updates the statewide Monitoring Plan for the Community Air Protection

¹⁸ California Air Resources Board, Statewide Mobile Monitoring Initiative (SMMI): Frequently Asked Questions, updated June 24, 2026: <https://ww2.arb.ca.gov/resources/fact-sheets/smmi-frequently-asked-questions-faq>.

Program pursuant to SB 352 (Reyes, 2025). Between now and then, CARB must be more transparent about the limitations of alternative, “flexible” monitoring tools.

23. “... many pollutants appear at or near the limit of detection in the regional [monitoring] network ... ” (page 29) - The fact that a TAC may be present just below the limit of detection does not mean that it is a meaningful contributor to human health risk. For example, concentrations below acute or chronic reference exposure levels are, by definition, not expected to cause or contribute to adverse health effects in the general population (including sensitive subpopulations). CARB, OEHHA, and the air districts must guard against the perception that the only acceptable level of exposure to a given TAC is zero, especially as detection methods become more sensitive and concentrations can be reliably reported at levels closer to zero. California’s air toxics programs are risk-based, and the purpose of risk assessment is to determine what level of exposure to a given TAC presents a significant, and therefore, actionable risk.
24. “Community science can also play a key role by elevating local concerns, identifying potential hot spots, and guiding where additional monitoring is needed.” (page 29) – CARB should define the term “community science” to ensure that all air toxics program stakeholders have a common understanding of this term and the scope of activities it entails.
25. Modeling (page 31) - CARB’s effort to develop a modeling framework should include a comprehensive process for validating model predictions under a broad range of conditions using actual monitoring data. This is necessary to ensure the model will be reliable when it is used as a substitute for actual monitoring data.

Section IV - Prioritize Emerging Air Toxics of Concern

26. “As scientific knowledge and chemical use evolve, some pollutants are identified as potentially posing greater risks than previously understood.” (page 32) - CARB should also acknowledge that evolving scientific knowledge can identify instances where existing TACs may pose lower risks than previously understood. In these cases, and particularly in light of the resource challenges CARB identifies in the Draft Roadmap, it is important to update existing health reference values and determine whether some resources should be redirected to address “emerging TACs” that pose greater risks to public health. CARB’s proposed Toxics Decision Framework (TDF) should specifically address this scenario so it is better prepared to “prioritize emerging and pre-existing air toxics of concern” and to “explain decisions more clearly, use resources more effectively, and ensure accountability.” CARB should also be aware that the manner in

which OEHHA and CARB have managed the rollout of information on acrolein and ethylene oxide are not examples of processes that “build trust, transparency, and public understanding of both risks and regulatory processes.” On the contrary, they are examples of the unintended consequences of using default scientific approaches and premature speculation about potential health risks despite known, extensive limitations in the available data. As a result, CARB’s and OEHHA’s initial actions on these chemicals undercut CARB’s stated objectives.

Section V - Increase Data Transparency and Public Access to Information

27. *“Communities need more than raw numbers; they need accessible storytelling, plain language explanations, and granular, neighborhood-level insights that reveal how different sources combine to shape local air quality.”* (page 33) We agree that this kind of information can be useful to facilitate community engagement in air toxics assessment and regulation. However, CARB needs to balance goals for data transparency tools and public access to information against the potential for abuse of these tools to target individual facilities and sources that are working diligently to comply with state and local air toxics laws in an increasingly complex, litigious, and politically fraught regulatory environment.

Section VI - Modernize Existing Programs Under AB 2588 and AB 1807

28. *“Another potential modernization option is a legislative amendment to automatically identify any EICG Appendix A chemical with an OEHHA health value as a TAC.”* (page 34) - CARB should discuss how a process that shifts from more rigorous analysis of available evidence to identify a TAC to a default identification based on an OEHHA-developed health reference value is somehow “furthering scientific rigor,” especially when the OEHHA-only process limits opportunities for public engagement and would eliminate CARB oversight. Furthermore, to the extent that CARB and OEHHA are contemplating other strategies to expedite development of health reference values, such as through application of methodologies to adapt existing values developed by other jurisdictions, this process could sidestep external scientific peer review by the Scientific Review Panel on Toxic Air Contaminants. These scenarios would regress, not further, scientific rigor.

Section VII - Develop Policies and Methods to Evaluate and Address Cumulative Risks from Ambient Exposure

29. *“This work will build on existing definitions, screening tools such as CalEnviroScreen ...”* (page 35) The Draft Roadmap does not clearly explain how CalEnviroScreen would be used to inform the design of tools to evaluate cumulative risks. CalEnviroScreen is not a

risk assessment tool. CARB's suggested use of CalEnviroScreen to inform assessment of cumulative risks raises the concern that CARB envisions a risk assessment process that is more qualitative than quantitative and plans to use that less scientifically rigorous approach to support more expedient identification and prioritization of "emission reduction strategies." Extending a qualitative assessment based on CalEnviroScreen to regulatory decisions impacting individual facilities would be improper. CalEnviroScreen is intended to allow state agencies to "compar[e] cumulative environmental and population-based burdens across California" and "to better target protections and investments to areas of greatest need," not as a shorthand for cumulative impact assessments. The Draft Roadmap should explain, as OEHHA cautioned in the CalEnviroScreen 5.0 Technical Report, that "cumulative impact assessments must be tailored to the stressors and decisions involved," and facility-specific health risk assessments "require more specialized datasets and analytical methods beyond the current scope of [CalEnviroScreen]." ¹⁹

Our Next Steps

30. CARB proposes on pages 37 and 38 Early Action Items and Other Near-Term Goals that require additional context, a more balanced presentation, and criteria that would guide implementation of these concepts in a manner consistent with the core principles espoused in the Draft Roadmap (e.g., science-based decision making, greater transparency, greater stakeholder engagement, etc.). In terms of CARB's individual proposals, we offer the following initial comments:

Early Action Items:

- a. Partner Engagement - We agree with CARB that engagement with all of its partners is critical to achieving reasonable further progress on TAC emissions and risk reduction. CARB's summary of this Early Action Item specifically mentions engagement with community groups, air districts and other partner agencies. There is no mention of engagement with potentially impacted businesses and industries, despite the fact that these stakeholders will be instrumental in providing the data that will inform decisions regarding future priorities and the feasibility of alternative mitigation measures, and in implementing selected measures. The success of any effort to update California's air toxics programs weighs heavily on proactive agency engagement

¹⁹ OEHHA, [CalEnviroScreen 5.0 Technical Report](#) (Jul. 2026), pp. 10-11.

with the regulated community. CARB should explicitly define the roles it anticipates for each of its partners, including for business and industry.

- b. Statewide Plans for Acrolein and Ethylene Oxide - We refer CARB to the scientific and policy comments submitted by this coalition to OEHHA on its draft Inhalation Unit Risk factors (IUR) for acrolein and ethylene oxide.²⁰ There is considerable work yet to be done by OEHHA and the SRP on correcting the scientific foundation of the draft IURs for both chemicals in addition to the work streams already identified by CARB to improve monitoring methods, emissions inventories, and source apportionment. This work is critical to inform further investigations and to prioritize deployment of resources to address the most significant risks. While this work is underway, CARB should refrain from further speculation about potential health risks from ambient exposures to these chemicals. CARB should also recognize that regulations have already been established by air districts for some known sources that incorporate the best available control technologies and push the practical limits of control efficiency (e.g., South Coast Rule 1405 for ethylene oxide sterilization facilities). In other cases, recently established state laws and regulations have already achieved significant additional emissions and risk reduction (e.g., enhanced leak detection and repair and minimum setback distance requirements for oil and gas wells will reduce acrolein emissions and exposures from these sources). Any statewide plan should be grounded in a thorough analysis of the work that has already been done to reduce emissions of these substances.

Other Near-Term Goals:

- c. Air Toxics Emissions Inventory – We agree that CARB must have a clear and accurate understanding of air toxics emissions from the majority of sources in California – both anthropogenic and natural - and certainly from those that are potential risk drivers. We agree that CARB's emissions inventory must be robust, accurate, and reliable and able to accurately estimate the risk from individual sources of air toxics. We agree that CARB should update outdated emission factors where there is new evidence indicating that existing emission factors are no longer accurate. We also support the goals of modernizing chemical speciation profiles and improving quality assurance of reported facility data. We

²⁰ OEHHA, Public Comments, Comment Submissions – Inhalation Unit Risk Factor (IUR) for Ethylene Oxide, [Comment - 22024 - California Chamber of Commerce and coalition partners](#), July 29, 2026; OEHHA, Public Comments, Comment Submissions – Inhalation Unit Risk Factor (IUR) for Acrolein, [Comment - 22023 - California Chamber of Commerce and coalition partners](#), July 29, 2026.

acknowledge that CARB will need additional resources to accomplish these important goals. However, achieving these goals for all sources is unrealistic even under the best of budgetary circumstances, and California's near term fiscal outlook is bleak. Accordingly, it will be critical for CARB to focus these efforts on "the pollutants of greatest concern," not as a first step, but for the foreseeable future.

- d. Cumulative Health Risk Evaluation – As noted above, CARB provides very little information regarding what policies, guidelines, and procedures it envisions to model the health impacts from all the sources of air toxics in a community, and what methods it is contemplating to measure the health benefits of reducing combined air toxic emissions. It is also unclear how cumulative risk assessments would be used to inform regulatory decisions. This concept is fraught not only with scientific complexities, but with legal complexities and practical realities related to the ability of a given facility to control emissions from sources it does not own or operate.

The feasibility of, and potential methods for, assessing cumulative risk have been the subject of scientific and policy debate for decades. Articles published in peer reviewed journals explore challenges that must be overcome to determine whether and to what extent cumulative environmental exposures contribute to increased vulnerability in exposed populations. One such article that explores cumulative risk assessment challenges in detail offers the following conclusion:

Cumulative risk assessment will be most useful to decision makers when it can help answer a fundamental question: "Do the uncertainty/safety factors built into the conventional risk assessment process adequately protect public health and ecologic resources from cumulative effects with a sufficient margin of safety?" To be relevant, therefore, cumulative risk assessment must provide guidance about which, if any, of the innumerable environmental mixtures that are part of our day-to-day lives represent important health risks, where "important" means there is a reasonable likelihood that combined effects of mixture constituents at realistic exposure levels constitute a

*serious health risk that is not adequately accounted for by traditional risk assessment methods.*²¹

The tools necessary to answer these questions will take considerable time and resources to develop, and given projected budgetary constraints, there is a high likelihood that CARB and OEHHA will gravitate toward expedient methods that rely even more heavily on conservative assumptions to fill persistent data gaps. This approach would magnify the deficiencies in current risk assessment methodology and available chemical-specific data and would likely result in gross overestimation of risks that would frustrate any effort to prioritize risk-driving chemicals, risk-driving sources, and effective mitigation measures. We are concerned that these circumstances would encourage extreme regulatory interventions, especially for stationary sources, such as temporary curtailment of operations or permit denial, even in cases where localized emissions and health risk are driven primarily by sources the facility cannot control. Such outcomes would be detrimental to the facility, the workers it employs, and to the local economy, without providing a meaningful health benefit to the community. They would also impede CARB's ability to "recognize and consider effects on the economy." The Draft Roadmap should identify these concerns and explain how CARB intends to approach cumulative risk assessment while anticipating and avoiding counter-productive regulatory outcomes.

- e. Prioritizing Our Efforts – We generally agree with CARB's stated goal of developing "an effective and transparent method for prioritizing our efforts so that all our partners are on the same page and understand why we are doing things in a particular order." We appreciate CARB's commitment to engage industry and other stakeholders in this process, and we look forward to working with CARB to develop the Toxics Decision Framework (TDF). We encourage CARB to share any preliminary information it may have already developed in support of an effective framework to encourage early stakeholder engagement in this process.

As CARB indicates, the prioritization process it envisions likely will be complex and will necessarily take time to develop. While this work is underway, we expect existing air toxics program work streams will move forward under current

²¹ Sexton K, Hattis, D., Assessing Cumulative Health Risks from Exposure to Environmental Mixtures—Three Fundamental Questions, Environmental Health Perspectives, January 24, 2007: <https://pmc.ncbi.nlm.nih.gov/articles/PMC1867955/>.

policies and regulations. That certainly appears to be CARB's intention for expanding data gathering pursuant to the AB 2588 Emissions Inventory Criteria and Guidelines Regulation (EICGR) and the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants (CTR), and OEHHA is continuing to work on development of health reference values for acrolein, ethylene oxide, and other TACs. CARB and OEHHA should also adhere to existing policies for updating TAC determinations and health reference values where new scientific information indicates that the existing values are no longer reliable for use in health risk assessments.

In this regard, CARB has deferred a decision on a petition to update the IUR for hexavalent chromium (Petition) for more than a year,²² and now appears to be taking the position that it must first develop the TDF.²³ CARB disregards the fact that a decision on the question of whether the more recent science identified in the Petition warrants an update of the original risk assessment and IUR is completely unrelated to the question of where this update process should be sequenced within CARB's and OEHHA's other air toxics program work streams. As a practical matter, it is not possible for CARB to answer the second question until it answers the first question. CARB's current position would allow it to defer a decision on the Petition indefinitely, in conflict with California's constitutional right to petition the government for redress and CARB's statutory obligation to respond to petitions seeking regulatory amendments within 30 days.²⁴ Nothing in the TAC Act indicates that the Legislature intended to exempt CARB from either requirement for the petition process in AB 1807.²⁵ CARB must adhere to its long-established policy for responding to petitions to update TAC determinations, described in the SRP Process for Evaluation and Response to Submittals of New Scientific Information as Evidence for Review of Toxic Air Contaminant Risk Assessments, and in accordance with the California Constitution and Government Code.²⁶ The promise of a yet-to-be-developed TDF does not excuse

²² Coalition Letter to Elizabeth Scheehle, Division Chief, Research Division, and Bonnie Holmes-Gen, Branch Chief, Health & Exposure Assessment Branch, CARB, regarding "Petition for Review of the Toxic Air Contaminant Human Health Assessment for Hexavalent Chromium Pursuant to Health and Safety Code Section 39662(e)," June 30, 2025.

²³ See Elizabeth Scheehle, CARB, Letter to Petitioners regarding "Petition for Review of TAC Human Health Assessment for Cr(VI)," July 29, 2026.

²⁴ See Govt. Code, §§ 11340.6, 11340.7 [general right to petition to amend a regulation]; Cal. Const., art. 1, § 3(a) [right to petition the government].

²⁵ Health and Safety Code §39662(e).

²⁶ Scientific Review Panel on Toxic Air Contaminants, [Process for Evaluation and Response to Submittals](#), December 12, 1989.

CARB's inaction on the pending Petition or on other TACs that warrant more immediate attention consistent with the requirements of existing air toxics law and policy.