



Air Pollution Control District
San Luis Obispo County

June 24, 2022

Liane M. Randolph
California Air Resources Board
1001 I Street
Sacramento, CA 95814

SUBJECT: SLO County APCD's Comments on Draft 2022 Scoping Plan Update

Dear Chair Randolph and Honored Board Members:

The San Luis Obispo County Air Pollution Control District (SLO County APCD) thanks the California Air Resources Board (CARB) for the enormous effort by your staff in developing the Draft 2022 Scoping Plan Update (Scoping Plan) that provides a roadmap of how California can achieve carbon neutrality by 2045. Our agency would also like to inform CARB, that staff have reviewed and concur with most of the Scoping Plan comments your agency received from the Bay Area Air Quality Management District and the Sacramento Metropolitan Air Quality Management District. Their focus on the bigger picture part of the Scoping Plan with good specific recommendations should be well complemented by our focused comments on Scoping Plan appendices.

Overarching Comment

SLO County APCD focused our Scoping Plan review on four appendices which provide guidance to help advance greenhouse gas (GHG) reductions through Local Action (Appendix D), Sustainable and Equitable Communities (Appendix E), Building Decarbonization (Appendix F), and Natural & Working Lands (Appendix I). We found these appendices to provide good summaries of their prospective issues and frameworks/pathways for each category to contribute their fair share toward achieving the State, regional, and local climate goals. While these documents provide some more actionable guidance than previous Scoping Plan updates, SLO County APCD recommends that after the adoption of the 2022 Scoping Plan Update, CARB immediately convene working groups for each inventory sector with the goal of building one-stop toolkits that include organized and referenced lists of actionable best practices. The call to develop these toolkit resources can be specified in the call for action sections in the Scoping Plan update. Time is of the essence and California can lead by example with sector-based toolkits to help quickly implement actions to reach Scoping Plan, regional, local, and business GHG reduction targets and goals. Many of these resources are already available which will make building and organizing one-stop sector toolkits easier.

The following are specific comments for each appendix:

Appendix D Local Actions

Table 1 – Priority GHG Reduction Strategies for Local Government Climate Action

1. This table provides a list of areas and strategies with the best GHG reduction potentials that local government has authority over. This list is a good draft table of contents for the “Local Actions Toolkit.”
2. For the Transportation Electrification Priority Area, recommend adding EV reach codes as a Priority Strategy.
3. For the Building Decarbonization Priority Area, recommend changing its second Priority Strategy to:

*Adopt **reach codes**, policies, and incentive programs to implement energy efficiency retrofits (such as weatherization, lighting upgrades, replacing energy intensive appliances and equipment with more efficient systems, etc.)*
4. The Local Actions Toolkit could include suites of existing reach code options that jurisdictions can pick from to match their goals. For an example, see Pages 3 to 7 in the following Peninsula Clean Energy presentation: <https://www.peninsulacleanenergy.com/wp-content/uploads/2021/05/CAC-Reach-Codes-Presentation.pdf>
5. By way of further example, a Bay Area regional collaboration group provides good examples of building and transportation reach codes and resources for the Local Actions Toolkit; <https://bayareareachcodes.org/#recommended>
6. This Toolkit can also point to the specific, GHG reduction, resiliency, and equity measures that support Table 1 and that are available in the:
 - a. [CAPCOA 2021 Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity](#)
 - b. 2022 [CalEEMod](#) updated land use and planning model.
7. Relative to supporting building decarbonization, Cap and Trade proceeds help fund AB 617 incentive and woodsmoke funding that Air Districts distribute mostly in our disadvantaged (DAC)/low-income (LIC) communities and sometimes to LIC community members outside of those areas. These funds have historically been geared toward projects like cleaning up/electrifying mobile sources, installing EV infrastructure, and replacing fireplaces/woodstoves with natural gas/electric units. Recommend CARB's Local Planning and Building Decarbonization sections coordinate with CARB's Community Air Protection (CAP; AB 617) Incentive Program section and CAPCOA's Grants and Mobile Source Committee to explore adding a funding category to the CAP Incentive program for building decarbonization retrofit programs/projects.

There may be industry standards for the efficiency improvements that can result from projects that could help in determining average program/project cost effectiveness. Or, perhaps since these changes are infrastructure related, cost effectiveness may not need to be a requirement under this new CAP project funding category, similar to the EV infrastructure category. Building decarbonization in the built environment is a significant goal to help jurisdictions reduce the energy use part of their GHG inventories. Adding an efficiency improvement/built environment retrofit category to the CAP Incentive Program could help jump start or augment local retrofit action. Speaking from our Air District's perspective, it has sometimes been challenging to secure projects for our CAP Incentive funds. Adding a building decarbonization category could help our agency more readily infuse CAP Incentive funds into the community. To streamline efforts, we recommend this new funding category allow air districts to partner with their local Regional Energy Network and/or Community Choice Aggregator/utility to add regular funding to existing retrofit programs to expand retrofit opportunities.

Section 3. The Role of Land Use Plans and Development Projects in Supporting State GHG Goals

1. While Table 1 focuses on implementable measures, Section 3 focuses on policies and plans that jurisdictions, agencies, and projects can implement to help meet local, regional, and statewide GHG reduction targets. Strong examples (climate action plans, general plans, policies, [consistency evaluations guidance](#)¹, strategies, etc.) organized in the Local Actions Toolkit will be important models to help other jurisdictions, agencies, and projects streamline their efforts to successfully follow suit.
2. Under the Air District-Adopted Thresholds of Significance section:
 - a. Instead of the phrase "many local air quality management and APCDs," consider using the word "some." Also, recommend qualifying this with the % of the California population that is covered by an SB 32 consistent Air District-adopted threshold for commercial and residential projects (i.e. Bay Area & Sacramento areas).
 - b. Also, expand this section to identify that there are jurisdictions with adopted thresholds that are SB 32 consistent, [some of which are included in a qualified Climate Action Plan](#), but that are used when projects are inconsistent with the Plan.
 - c. It would be helpful for the Toolkit to provide several examples of jurisdiction and project specific thresholds as models for others to reference.

Section 4.3 Overcoming Barriers Through Regional Collaboration

Since the referenced carbon offset webinar series is now complete, recommend updating the Central Coast Regional GHG Collaboration Group paragraph on Page 20 as follows:

¹ Note: Bay Area AQMD's April 2022 CEQA thresholds justification document states that Appendix C to their CEQA Air Quality Guidance document provides guidance on how a jurisdiction can develop a qualified climate action plan that satisfies the requirements of state [CEQA Guidelines Section 15183.5\(b\)\(1\)](#). Their staff have indicated Appendix C may be issued in July 2022. Office of Planning and Research also provides guidance in their [General Plan Guidelines](#).

Collaboration can also lend support for lead agencies and air districts as they verify and enforce GHG mitigation commitments. For example, [San Luis Obispo County APCD](#), [County of Santa Barbara](#), [County of Ventura](#), [City of Santa Barbara](#), [City of San Luis Obispo](#), and [Community Environmental Council](#) formed a Regional GHG Collaboration Group. After two years of discussions and learning, the group developed and hosted a 5-part webinar series entitled, "[Balance: Getting to Carbon Neutrality Through Sequestration and Offsets](#)." Goals for the series included: 1) educating agricultural land owners, land use developers, agencies, decision-makers, and other stakeholders on carbon markets with a strong focus on the possibilities for local and regional natural and working land projects; and 2) providing avenues for better regional connections to support the market for local GHG mitigation and offset projects to help meet current and future local GHG reduction targets and CEQA GHG reduction needs. Click [here](#) for session recordings and summaries, speaker bios, and related resources that support each session topic.

The last paragraph in Section 4.3 states:

There may also be a role for the State to ensure that all regions have access to mitigation opportunities. One potential avenue to accomplish this would be through the creation of a statewide mitigation bank for CEQA mitigation purposes.

Beyond hosting offset registries (e.g. per SB 27) we recommend the potential State role in helping to reduce upfront costs associated with offset generation be elaborated on in the Scoping Plan.

Appendix E Sustainable and Equitable Communities

Section 2.3 This is not just about reducing GHG emissions from the transportation sector. Sustainable and equitable communities support other measures to reduce GHG emissions, too.

The "Building & infrastructure" subparagraph discusses the need for compact infill. However, in line with the equitable component of the section's header, recommend pointing out that there needs to be a strong affordability component with infill.

Section 2.4 Departing from the status quo would ease inequitable burdens on California's low-income and BIPOC communities

To depart from the inequitable issues that have come from status quo development, CARB could use this Scoping Plan update to outline recommendations for how California can make better choices (e.g. general plan update recommendations, legislation fixes that could be implemented through RHNA requirements, etc.).

Section 3. Framework for Action

With our previously proposed concept of CARB convening working groups to develop actionable Toolkits that house best practices, an area we see as important for sustainable land use development is to avoid development that would exacerbate food, shopping, and

commercial service deserts, resulting in increased vehicle miles traveled (VMT). Our agency has observed mixed use development that front loads residential components. Then, the commercial components that would support the residences are either slow to develop or do not get built. To address this issue, guidance or ordinances could require that mixed use projects develop commercial components in the first or early phases. Additionally, where these deserts exist, establishing programs that provide meaningful incentives for the use of carpooling, car share, and alternative transportation modes could help reduce VMT.

Section 3.1 Strategy Area 1: Plan and Invest in a Sustainable Transportation System

Recommend this section specifically call out person powered and electric micro mobility and electric bicycles as additional alternative transportation options that will help offset single occupancy vehicle use. These and several other options already listed in this section can address last mile needs and, relative to electric vehicles purchasing/leasing, are more affordable clean transportation solutions. Some example Toolkit strategies in this space include:

- Jurisdictions specifying an active transportation percentage goal and backing up that goal by dedicating an equal percentage of transportation infrastructure funds to support active transportation (e.g., City of San Luis Obispo).
- Ensure that Active Transportation Plans include support for micro mobility.

Section 3.1 Strategy Area 1 - 3.1.2 Objectives

1. *Reimagine roadway projects that increase VMT in a way that meets community needs and reduces the need to drive.*

Recommend acknowledging the role VMT banks or exchanges may play in addressing VMT reduction needs identified in the Scoping Plan and for SB 743 compliance.

2. *Double local transit coverage and service frequencies by 2030.*

Our agency supports this transit objective, but also recommends that in the process of securing this objective, the Scoping Plan and subsequent Toolkit best practices also provide recommendations about improving rider experience and convenience as important to increasing ridership and thus reducing VMT.

5. *Increase availability and affordability of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles, prioritizing needs of underserved communities.*

When new and redevelopment projects exceed GHG emission thresholds, the Toolkit can reference the CAPCOA GHG Handbook referenced above to identify applicable mitigation measures. For example, residential and some commercial projects could offer shared electric vehicles and e-bikes/scooters as mitigation. Residents and commercial projects can incorporate these options to meet their transportation needs and reduce single occupancy vehicles and VMT.

Recommend CARB's CAP Incentive Program section (AB 617) work with the CAPCOA Grants and Mobile Source Committee to broaden the eligible project categories to include EV share, bike and e-bike share, micro mobility, repair donated [bicycles to provide transportation independence for those in need](#), and active transportation infrastructure. Expand Objective 5 to include support for these additional clean transportation solutions and provide best practice examples of these solutions in the Toolkit.

Section 3.1.3 Actions

Recommend adding a Strategic Area 1 action (Toolkit item) that provides outreach and support to help DAC and LIC communities and qualifying community members outside of designated DAC and LIC areas learn about and receive funding to get into low or no cost lease return EVs. Also identify support to help secure low or no cost EV charging infrastructure at residences.

Section 3.2 Strategy Area 2: Manage Use of the Transportation System to Advance Climate, Air Quality, and Equity Goals

The opening discussion for this Strategy Area discusses pricing strategies that improve equity. Strategies the Scoping Plan and Toolkits could elevate include:

- Make HOV lane accessible to income qualifying community members and back this change with strong, targeted outreach using trusted community members and spaces.
- Reduce transportation toll, transit, and rail fees for income qualifying community members.
- Provide expanded alternative commute mode incentives for income qualifying community members.

Section 3.3 Strategy Area 3: Shape the Deployment of New Mobility Options

Section 3.3.3 Actions

A. Authorize pricing of empty/zero-passenger miles at higher rates than for other levels of occupancy

Recommend this action include a statement that points out that implementation of this action should not exacerbate inequities.

Section 3.4 Strategy Area 4: Improve Alignment of Land Use Planning and Development with Climate and Equity Goals

Since most EV charging happens at home, recommend adding an action for a statewide requirement that new multi-family complexes include dedicated EV charging for each new unit. This will ensure complexes built today will not need costly retrofitting to meet future charging demands of complex residents as EVs become more ubiquitous. Also recommend that CARB's CAP Incentive Program section (AB 617) work with the CAPCOA Grants and Mobile Source Committee on effective statewide/local outreach and support that will successfully expand the funding of EV infrastructure retrofit projects for existing multi-family complexes.

Appendix F Building Decarbonization

General Comment

The last sentence in Appendix F states:

While this Appendix provides a menu of potential actions, a comprehensive roadmap would help ensure equitable and cost-effective building decarbonization.

This statement supports our previous recommendation that right after the Scoping Plan adoption, CARB convene working groups for each Scoping Plan sector to develop one-stop shop Toolkits with actionable best practices to facilitate rapid understanding and implementation of GHG reducing strategies.

With the Building Decarbonization Toolkit in mind, the following are actionable measures our agency recommends be identified in Appendix F and included in applicable Toolkits:

4. Potential Actions to Support a Successful Transition to Building Decarbonization

d) Build a Sustainable Market

i. Increase Affordability and Accessibility

- Expand Incentive Programs to Support the Holistic Retrofit of Existing Buildings, Especially for Priority Populations

1. This section, and others in Appendix F, call for more incentives to help with building electrification. With this in mind, our agency provided a recommendation for modifications to the CAP Program to allow air districts to use our AB 617 funding for building decarbonization projects. For details, please reference comment #7 on page 2 of this letter.
2. One step in holistic retrofits that can be overlooked is ensuring the retrofit includes proper attic venting. For example, retrofits can help significantly remove stagnant summer attic temperatures by adding passive attic ventilation where new ridge vent net free area (NFA) is matched to new rafter vent and soffit vent NFA, sealing attic penetrations, and then re-insulating at or above Title 24 standards. Enabling hot attic air to passively escape through convection and ridge vent venturi effects creates air exchange with cooler outside air. This reduces the attic heat load that penetrates from the attic to the living space, thus reducing the amount of summertime air conditioning and related energy use and GHG emissions from building operations.

For new construction, adding a requirement for passive attic ventilation would add a very nominal cost in design, materials, and labor, and the building operation would realize a lifetime of GHG reduction, efficiency, and operation cost benefits.

For more information, see:

- <https://www.finehomebuilding.com/project-guides/roofing/a-crash-course-in-roof-venting>, and

- the attached Case Study.
- 3. Based on [manufacturer specifications](#), modern, efficient variable speed air source heat pumps, with DC inverter technology now provide effective heating down to -22°F and cooling up to 130°F. Between about -5 and 105°F these systems are reported to run at 100% capacity. At -22 and 130°F they are reported to retain about 78% of their heating and cooling capacity respectively. Heating with these efficient systems require no high amp auxiliary heat strips of prior generation heat pumps and are therefore substantially more efficient. Installing old heat pump technology today will not only require more relative energy use and operations cost to modern heat pumps, but they would also need to be upgraded later. With the state GHG reduction goals in mind, it makes sense to rapidly phase out old heat pump technology for new construction and HVAC retrofits.

For more information, see example DC inverter heat pump details at the links below:

- Consumer: H2i Hyper Heating Units – See Pages 17 & 25 for retrofitting ducted homes:
<https://www.mitsubishicomfort.com/themes/custom/MitsubishiMegaSite/src/img/productPDFs/Consumer%20Brochure%202021.pdf>
- Office/Commercial:
https://pacificairconditioner.com/files/Mitsubishi_H2i_Hyper_heating_inverter_brochure.pdf
- For an example image of heating performance with decreasing temperatures for DC inverter heat pumps relative to historic heat pumps see:
<https://www.vtenergy.com/heatpump.php>

Appendix I – Natural and Working Lands Technical Support Document

General

Our previous comments for Appendix D, Section 4.3 provides updated text for that section's discussion about a recent regional 5-part webinar series that brought in experts on GHG sequestration, offsets and projects, primarily in natural and working lands (NWL). [The resources from this webinar series](#) should prove helpful in the development of NWL Actionable Toolkit, led by CARB.

Forests, Shrublands, Chaparral, and Grasslands

The NWL scenario assessment includes seven management operations for forests. Three of these potential treatment options (clearcut, mechanical treatments, and thinning) include a pile burning component. This burning component presumably assumes the material is burned to ash with resulting criteria pollutant and GHG emissions. Recommend that CARB build in a modeling feature that allows the total mass burned to be split between different burning methods (e.g. traditional pile burning, conservation burning, flame-cap kiln burning, air curtain incineration, carbonizer, pyrolysis, etc.) each of which will result in different

emissions and sequestered carbon amounts. The produced, long-term sequestered biochar from some of these burn methods can be incorporated into the forest floor with beneficial results. In addition, [Climate Action Reserve](#) and [VERRA](#) are currently developing voluntary offset protocols for biochar production. Burning, that results in biochar production could therefore provide a much-needed California offset supply that can be used to help meet current and future GHG mitigation needs for projects during the CEQA process and could help jurisdictions meet emission reduction or Climate Action Plan goals.

Emission rates and sequestration information is currently available for some of these methods. This information and carbon life cycle analyses (LCA) for the first three example burn methods will be developed through a recently awarded, and CAPCOA managed, [CAL FIRE Business and Workforce Development Research and Development Grant](#). The study will also compare the LCAs of the studied burn methods to the LCAs of other material disposal methods (e.g. chipping, decay in place, etc). Regarding [carbonizer](#) emissions/sequestration rates, a manufacturer has recently requested that CAPCOA Engineering Managers evaluate an emission test protocol and provide guidance to help ensure the testing will meet air district scrutiny.

Assuming the testing results of these alternative burn techniques prove effective at reducing emissions and biochar production we recommend:

1. CARB and CAPCOA collaborate with stakeholders to integrate them as California best management practices and account for them in upcoming Scoping Plan efforts. In the meantime, we recommend:
 - a. The NWL Scoping Plan sections list the various burning methods available for managing forestry waste.
 - b. For the modeling:
 - i. Expand the burning method options available for evaluating the different management treatment options; and
 - ii. Estimate the current split in updated 2022 Scoping Plan NWL modeling.

Croplands

The croplands modeling includes estimates of planted and removed (pushed) perennial crops like orchards and vineyards. It was not clear whether the model accounts for how much of the pushed material is burned and how much emissions result. If not, we recommend the modeling account for burning. Like our forestry comments, we further recommend that agricultural burning be broken out by different burning methods. For background on agricultural burning, your agency reported [Greenhouse Gas Current California Emission Inventory Data](#) from the burning of almond and walnut wastes accounted for 1.49 million metric tons of CO₂e emissions in 2017. Also, your agency's 2016 State Implementation Plan (SIP) emissions inventory reported considerable 2012 criteria-pollutant emissions from [annual burning of California agricultural woody wastes](#); these included 927 tons of reactive organic gases, 807 tons of nitrogen oxides and 1,059 tons of inhalable particles (PM_{2.5}).

Lastly, the croplands modeling includes GHG benefits from the conversion of traditional cropland management to twelve California Department of Food and Agriculture (CDFA) Healthy Soils Program practices. We recommend that CARB expand the practices to include [regenerative agricultural practices](#) not included in the CDFA list. For additional background click [here](#) and review materials under the [Carbon Sequestration and Offsets Webinar Series Session 4 – Beyond Carbon Markets: Holistic and Integrated Projects and Stewardship](#).

SLO County APCD appreciates the opportunity to review and provide comments to help your agency refine and finalize the 2022 Scoping Plan Update. Strengthening the draft will help ensure California continues to lead by example as we work collectively to meet the State's interim 2030 GHG reduction target and 2045 carbon neutrality goal.

Our agency would be happy to work with CARB to implement our Scoping Plan Update recommendations and are available to answer any questions you might have about our comments. Please contact me at amutziger@co.slo.ca.us or 805-781-5912.

Sincerely,



ANDREW MUTZIGER

Division Manager - Planning, Monitoring and Grants

Attachment

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