



January 1, 2022

The Honorable Chair Liane Randolph  
 California Air Resource Board  
 1001 I Street  
 Sacramento, CA 95814

*Via Electronic Submission*

Re: 2022 Scoping Plan Update –  
 Natural and Working Lands Workshop

Dear Chair Randolph and Board Members:

Thank you for the opportunity to comment on the Natural and Working Lands component of the 2022 Scoping Plan Update. California’s working lands are the foundational economic pillar of the State and also the most promising and cost-effective solution to the impacts and realities of climate change. The undersigned coalition of agricultural and business interests, herein, collectively represent the majority of the State’s proprietors of working lands, particularly agricultural lands, and strive to protect and improve the ability of farmers and ranchers to provide a reliable supply of food and fiber through resource stewardship.<sup>1</sup> We offer these comments in response to the proposed draft scenarios presented at the Technical Workshop on December 2, 2021.

**SCENARIOS 1 & 4**

Firstly, this coalition discourages the Air Resources Board (ARB) from meaningfully considering Scenarios 1 and 4.

Under Scenario 1, the model proposes to maximize soil carbon stock, perennial biomass generation and implementation of climate smart agricultural practices to the extent allowable under agronomic and resource capacities. This proposal is flawed on two accounts—firstly, the ability to maximize soil carbon stock through permanent (perennial) crops rests on an assumption that perennial acreage in California will increase or remain static. Acreage of any commodity or any type has never remained linear or static. Land, water, employees, processing, and markets influence the choices a farmer or rancher has available. All of these are in critical short supply right now and it is impossible to predict what the future holds.

We are currently experiencing a historic drought across the western states. The U.S. Drought Monitor currently identifies nearly three-quarters of California in extreme to exceptional drought. Perennial crops (such as almonds, walnuts, citrus, and grapes) take years to produce and decades to pay-off. To justify these investments, farmers need a sufficient and reliable source of water over that time span and the current realities of water markets in California suggest that perennial crops acreage will lessen over time. A 2021 survey conducted by the California Farm Bureau of 480 permanent crop farmers found 41% were “likely to extremely likely” to remove orchard trees due to drought. Given the baseline years for consideration in the scenarios cover 2001-2014, when thousands of acres of perennial plantings were occurring, the model may not account for future orchard removal and loss of carbon stock.

Second, while California’s agriculturalists would like the pace of climate smart adoption to continue, without sufficient water, climate smart practices will be de-prioritized as an operation must use what scarce resources it must simply remain solvent. For example, cover cropping (both a CDFA and USDA-NRCS incented practice) has been encouraged as a mechanism for farms to respond to climate change. However, under drought conditions, many would-be adopters are understandably concerned about any potential impact on water budgets and are hesitant to initiate plantings. Additionally, many of the climate smart practices, such as reduced or no-till, require expensive and specialized equipment that is unaffordable in times of scarcity. Given these two limitations, we question the practicality of these management strategies to meet the overarching objective.

The Agriculture sections of Scenarios 1 and 4 also suffer from inadequate recognition of the amount of agricultural acreage proposed to be converted. Scenario 1 proposes to only include agricultural land lost due to implementation of the Sustainable Groundwater Management Act (SGMA). The effects of SGMA will be felt significantly across California, specifically in the Central Valley, where various studies suggest that achieving groundwater sustainability will require fallowing more than 535,000 to 780,000 irrigated acres (5-8% of California’s agricultural land).<sup>1</sup> These lost acres mean lost jobs and lost economic opportunity (\$2-\$3.5 Billion losses annually) for one of California’s most economically distressed areas.

While the total acreage fallowed from just SGMA will be dramatic, as noted, it is not the only factor resulting in fallowed agricultural land. Drought has and will continue to have a profound impact on the viability of agricultural lands. The drought of 2012-2016 (which may be partially incorporated into the modeling in Scenario 4) resulted in the idling of 6% of irrigated crops.<sup>2</sup> California’s current drought conditions, however, are more dire. The same 2021 California Farm Bureau survey querying perennial

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<sup>1</sup> Sullivan, J. (February 11, 2020). Yale Environmental Review. [Agricultural land retirement in the San Joaquin Valley: A novel conservation opportunity](#); Hanak, E. et al. (2019). Public Policy Institute of California. [Water and the Future of the San Joaquin Valley \(ppic.org\)](#). Sunding, D. Roland-Host, D. (2020). Blueprint Economic Impact Analysis. Phase One. UC Berkley. [https://waterblueprintca.com/wp-content/uploads/2021/09/Blueprint.EIA\\_PhaseOne.2.28-v41.pdf](https://waterblueprintca.com/wp-content/uploads/2021/09/Blueprint.EIA_PhaseOne.2.28-v41.pdf)

<sup>2</sup>Lund, J., J. Medellin-Azuara, J. Durand, and K. Stone. “Lessons from California’s 2012-2016 Drought,” Journal of Water Resources Planning and Management. 144, 10 (2018).

crop farmers found that 25% of annual crop growers are highly or extremely likely to plow crops under and leave land unmanaged or convert to higher density uses in the coming year due to drought. This consideration would not be included in Scenario 1 or Scenario 4.

Finally, urban sprawl, especially low-density development, has resulted in the irreplaceable loss of farmland, especially of vulnerable acres at urban edges. These lands are often owned or managed by small or socially disadvantaged farmers and ranchers. According to a 2018 study by the American Farmland Trust, over the past three decades, more than one million acres of California farmland have been removed from agriculture and, if current development trends continue, another 1.4 million acres will be lost by mid-century.<sup>3</sup> Considering agricultural land produces 58-70% fewer greenhouse gases than urban acreage, it is critical that the scenarios and subsequent modeling of agricultural land base capacities adequately incorporate these considerations.

For these reasons, we reject the proposed management strategies in Scenarios 1 and 4. We also encourage ARB to adjust the expected conversion of the state's agricultural land base and its capacity to sequester carbon.

### **SCENARIOS 2 & 3**

While Scenarios 2 and 3 present more realistic assumptions and more practical goals, we question the accuracy of deploying the following management practices.

### **Carbon Sequestration and Carbon Stock Potential**

Scenarios 2 and 3 propose an increase in climate smart agricultural practices and while we share this goal, success necessitates that start with an accurate baseline and continually adapt the programs to the farmer and rancher needs. Significant investments have been made by California farmers and ranchers to reduce carbon emissions and increase sequestration. According to the U.S. Department of Agriculture's Natural Resource Conservation Service, the number of acres receiving support for climate smart practices has increased to nearly 778,000 acres in 2020.<sup>4</sup> This does not include the over 54,638 acres under a Healthy Soils Program management practice incented by the California Department of Food and Agriculture or the tens of thousands of acres under a voluntary and self-funded management practice (such as compost application or no-till) on California's 9.5 million irrigated acres.<sup>5</sup> The latest report by the Legislative Analysts' Office cites that the state's programs alone result in a 2.5 MMTCO<sub>2</sub>e benefit annually.<sup>6</sup> We encourage ARB to comprehensively evaluate the historical implementation of practices during the baseline years and adopt a tracking/surveying strategy moving forward that, to the best of its ability, includes all acres utilizing a climate smart practice, including those not funded by state or federal resources. Additionally, as the success of these on-farm investments occurred using voluntary incentives, we recommend this paradigm continue. Partnering with agriculture through climate smart programs is the

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<sup>3</sup> American Farmland Trust. (2018). Greener Fields: California Communities Combating Climate Change. [AFT CA-GrFields-web3\\_0.pdf \(pcdn.co\)](#)

<sup>4</sup> USDA-NRCS. Conservation Stewardship Program. [Conservation Stewardship Program \(CSP\) | Farm Bill Report \(FY 2009 through FY 2020\) | NRCS \(usda.gov\)](#) and Environmental Quality Incentive Program. [Environmental Quality Incentives Program \(EQIP\) | Farm Bill Report \(FY 2009 through FY 2020\) | NRCS \(usda.gov\)](#)

<sup>5</sup> California Department of Food and Agriculture, Office of Environmental Farming and Innovation. (2021). [HSP one pager \(ca.gov\)](#)

<sup>6</sup> Petek, G. (2021). Assessing California's Climate Policies—Agriculture. Legislative Analysts' Office. [Assessing California's Climate Policies—Agriculture](#)

most meaningful way to increase the pace and scale of practice adoption to reduce carbon emissions and increase sequestration on working lands, thereby achieving carbon neutrality.

While we support an increase in the adoption of climate smart practices proposed in both Scenarios, we disagree with the focus on biodiversity identified in Scenario 4. Certainly, some practices proposed to encourage climate resilience have the added benefit of promoting biodiversity, such as planting hedgerows, pollinator friendly cover crops, or composting. Importantly though, biodiversity is achieved as a co-benefit of these practices, not the primary objective. Many other the climate smart agricultural practices promoted by the state, in the interest of maximizing climate benefits, do not seek to achieve nor do they achieve biodiversity. This is not to suggest that we do not value biodiversity or seek to maximize it, but it is a misnomer to suggest that it should be the metric through which all farms and ranches are judged. Therefore, we disagree that biodiversity should be the focus of management strategies proposed to achieve climate resilience, as proposed in Scenario 4.

Rather, due to the inextricable link between water availability and the success of climate smart practice adoption on farm, we support the focus on drought resilience identified in Scenario 2. To unlock the true potential of agricultural lands serving as carbon sinks, we encourage ARB to consider water infrastructure needs as a prerequisite to mitigate for drought and accelerate full scale adoption of these practices.

### **Crop Protection and Pest Management Tools**

A review of the public comments suggests an interested in incorporating an anti-pesticide agenda in the scenario drafting. We appreciate that the draft scenarios proposed on December 2<sup>nd</sup> do not reflect that request. Science supports that use of both synthetic and biological pesticides. Crop protection tools—those made by man and those made by nature—help farmers and ranchers meet the global demand for food, feed, fiber, and fuel by protecting harvests from pests and disease (thereby reducing waste), maximizing yields, improving the efficient use of other agricultural inputs, and allowing farmers to adopt sustainable and efficient practices with low cost and high benefit. Studies suggest that pest proliferation will only become more pervasive with climate change; thus, the agricultural community needs a variety of effective and affordable tools available to respond.

It is vital in this context to emphasize that the AB 32 Global Warming Solutions Act charts a course to reduce greenhouse gas emissions. ARB has noted on several occasions, that the chemicals in agriculturally used pesticides are not identified within the scope of the act and for some, such as nitrous oxide, research is insufficient to positively identify the resulting impacts. To that end, and until such definitive research is conducted and/or identified, we encourage ARB maintain its focus on the identified practices that demonstrably increase carbon stocks and reduce emissions.

We would like to take the opportunity to remind ARB staff and board leadership of the current efforts underway by the appropriate state agencies and departments to reduce the use and impact of synthetic pesticides and accelerate the adoption of sustainable pest control practices. The Department of Pesticide Regulation, in addition to the U.S. Environmental Protection Agency and ARB, review and re-evaluate (if necessary) pesticidal products for their air quality impacts and emissions, including volatile organic compounds, to ensure the safety of California residents. Ongoing monitoring and mitigation are conducted through DPR's air monitoring network and ARB's AB 617 Community Air Protection Program allows communities to develop plans and implement local strategies to measure air pollution and reduce its impacts. Further, the California Department of Food and Agriculture manages the Biologically Integrated Farming System program aimed to reduce the need for chemical pesticide inputs. Additionally, the state has initiated a 26-member Sustainable Pest Management Work Group to make recommendations

to minimize the use of pesticides and expand integrated pest management practices. Finally, researchers and extension specialists within the University of California Statewide Integrated Pest Management Program, with state and federal resources, are specifically charged to draw on cutting edge research and expertise to support safe and effective pest management strategies. This is not an exhaustive list and only notes some of the efforts underway by state, federal, local, and private entities to achieve a similar end.

## Organic Agriculture

Both Scenarios 2 and 4, within the Agriculture category, propose to increase organic production. While we support organic farms and ranches, we believe it is not the role of the state to pick winners and losers and any such program would fail to account for the very site specific and operationally specific challenges and opportunities that enabled someone to make an investment in organic production and, hopefully, achieve a market return that allows for a financially sustainable farm or ranch. As organizations and leaders representing both conventionally and organically produced crops, we agree that some soil management and farming practices included in organic certification can contribute to increased soil carbon sequestration. These practices, however, are not the exclusive domain of organic producers, with many “conventional” farmers incorporating them into their operations.

Furthermore, as with all choices, choosing to utilize an organic production system, comes with trade-offs. For instance, organic production, with its lower yields, needs a higher price in the market (the organic premium) and requires more land, water, workforce and equipment per unit grown. This volitional inefficiency will increase emissions as food production moves to Arizona, Mexico, Chile and beyond (i.e., leakage).<sup>7</sup> The amount of food consumed in our state is not tied to how much food is produced here; in short, the less food that is produced in state, the more its residents will buy from out of state. This will weaken any true carbon reduction and environmental benefits provided in state and will likely exacerbate the state’s climate woes. It also undercuts the people and operations that have made investments that require the organic premium to stay solvent. Subsidizing new entrants into the organic market will give these new entrants a competitive advantage and reduce the price premium available to producers, this further harming existing operations.

We are unaware, at this date, of research exploring the full consequences for net greenhouse gas emissions in shifting from conventional to organic food production on a large scale. Therefore, as the state proposes to increase the transition to organic production, we encourage ARB to work with its sister agencies to perform said lifecycle analyses.

Additionally, while both Scenarios 2 and 4 suggest an increase in organic agriculture, they do not operationalize the amount of acreage to convert. It is important to note that California already leads the nation in organic production, at 36%, and acreage under certification is projected to increase. In fact, the state saw a 22% increase in organic production from 2014 (1.79 million acres) to 2020 (2.18 million acres).<sup>8</sup> Please note that this growth occurred without direct government intervention in the marketplace. Organic markets must grow organically.

Even with organic production increasing, it is not without its challenges to the California farmer and rancher. Due to chronic oversupply of some commodities, mainly driven by other states and countries

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<sup>7</sup> Smith, L.G., Kirk, G.J.D., Jones, P.J. *et al.* The greenhouse gas impacts of converting food production in England and Wales to organic methods. *Nat Commun* **10**, 4641 (2019). <https://doi.org/10.1038/s41467-019-12622-7>

<sup>8</sup> California Department of Food and Agriculture. (2020). California Agricultural Organic Report: California Agricultural Statistics Review 2019-2020. [https://www.cdfa.ca.gov/Statistics/PDFs/2020\\_Organics\\_Publication.pdf](https://www.cdfa.ca.gov/Statistics/PDFs/2020_Organics_Publication.pdf)



“dumping” their products here, many organically produced crops must be sold in the conventional market, thereby forgoing the premium pricing for California farmers. Based on fluctuating markets, lack of labor availability, lack of organic inputs available, water availability, or pest pressures, farmers transition their lands in and out of organic production. Many growers choose to incorporate the soil-based practices of organic farming but do not pursue certification because of associated costs of compliance and the regulatory burdens. It is important ARB consider and respect that the agronomic, philosophic, and financial variables farmers contemplate in considering conversion to organic production are farm, business and site-specific.

Nevertheless, we expect organic production to increase overtime, but acknowledge that it will plateau at a point where supply meets consumer demand and the profit margins available to farmers remains positive. Should the state, however, exceed this theoretical market limit and pursue a policy of organic expansion without considering the impacts to farms, as was the case in Sri Lanka, impacts could be significant.<sup>9</sup> A faux demand could lead to oversupply, undermining the organic premium price, increasing production costs, disincentivizing transitions, and have the unintended consequences of increasing the barriers to entry for new or socially disadvantaged farmers and ranchers. It would result in increasing California-grown food costs to all communities, including the food insecure, compounding the detrimental effect of food inflation on our most vulnerable populations. For these reasons, we encourage ARB to allow the natural curve of organic adoption (roughly 3% per year) by California growers to occur uninterrupted. The increase in organic production can occur “organically,” thus furthering the state’s climate goals without resulting in unintended negative consequences because it reflects the market opportunity for conversion within agri-business realities.

California’s farmers and ranchers live on the frontlines of climate change impacts on the daily lives and livelihoods, experiencing worsening drought, wildfires, diminishing soils, pest proliferation, and severe weather events. These climate-driven challenges are compounded by increased regulation, greater competition, changing consumer preferences and labor shortages. And yet, the state’s agricultural community offers an invaluable service to the world, providing an abundant, healthy, safe, and affordable food supply. We encourage ARB, while calling upon working lands to be a part of the climate solution, to consider these broader and more significant human and environmental health benefits California agriculture provides and pursue scenarios and management strategies that do not undermine these primary objectives.

On behalf of the agricultural community, we thank you again for the opportunity to provide comment. We hope to encourage a partnership between agriculture and ARB staff and leadership moving forward.

Sincerely,



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California Farm Bureau



Danielle Diele, Public Policy Coordinator  
Agricultural Council of California



Gail Delihant, Director of Government Affairs  
Western Growers Association




Ian LeMay, President  
California Fresh Fruit Association

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<sup>9</sup> Wipulasena, A. & Mashal, M. (December 7, 2021). “Sri Lanka’s Plunge Into Organic Farming Brings Disaster.” N.Y. Times. [Sri Lanka’s Plunge Into Organic Farming Brings Disaster - The New York Times \(nytimes.com\)](https://www.nytimes.com/2021/12/07/world/asia/sri-lanka-organic-farming.html)



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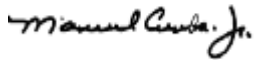
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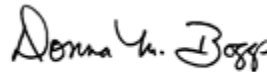
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Donna Boggs, Associate Director  
California Seed Association



Debra Murdock, Executive Director  
Association of California Egg Farmers



Jane Townsend, Manager  
California Bean Shippers Association



Chris Zanobini, Executive Director  
California Pear Growers Association



Ann Quinn, Executive Vice President  
California Warehouse Association

<sup>i</sup> The California Farm Bureau Federation is a non-governmental, non-profit organization representing nearly 32,000 farming members, whose purpose is to protect and promote agricultural interests throughout the State and to find solutions to the problems facing agricultural businesses and the rural community.

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The California Walnut Commission is funded by mandatory assessments of the growers. The Commission is an agency of the State of California that works in concurrence with the Secretary of the California Department of Food and Agriculture (CDFA). The CWC is mainly involved in health research and export market development activities.

The Plant California Alliance is an association of professionals who bring plants and landscape supplies to Californians and the world. Our members are united in the belief that a strong, viable nursery industry is critical to life in California.

The California Cotton Ginners and Growers Association is a voluntary agricultural trade association that proudly represent 100% of all cotton ginners and growers in the state. The association represents members on a variety of issues at both the state and federal level, including air quality, water quality, energy, environmental, labor, taxes, transportation and many others.

Advancing the environmentally responsible and scientifically sound use of products farmers need to feed the world. Western Plant Health Association members are global leaders in understanding how to nourish the soil and protect crops so that fruits, vegetables and nursery plants can continue to thrive.

The Western Agricultural Processors Association is a voluntary dues agricultural trade organization representing tree nut hullers and processors of almonds, pecans, pistachios and walnuts, and handles many regulatory and legislative issues including but not limited to safety, food safety, air quality, water quality, water supply, transportation, energy, pesticides, and labor.

Far West Equipment Dealers Association is a not-for-profit trade association representing agricultural, industrial, material handling, hardware, lumber, outdoor power and rental equipment dealers in Arizona, California, Colorado, Hawaii, Nevada, Utah and Wyoming. FWEDA strives to protect and promote the interests of their members through leadership, advocacy, professional development, and industry partnerships.

California Citrus Mutual is a voluntary non-profit trade association advocating for the sustainability of the California citrus grower. We do this by providing a forum for citrus growers to identify our collective needs and advocating for practical solutions internally and across government.

The California Fresh Fruit Association is a voluntary public policy association that represents growers, packers, and shippers of California table grape, blueberry, kiwi, pomegranate, and deciduous tree fruit commodities. CFFA serves as a public policy representative for these growers, shippers, and packers on issues before federal and state governments.

Founded in 1919, Agricultural Council of California is a member-supported organization advocating for more than 15,000 farmers across California, ranging from farmer-owned businesses to the world's best-known brands.