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To Whom It May Concern:

These comments are provided on behalf of the Almond Alliance, in cooperation with the Almond Board of California (ABC). The following comments are in response to request for public comment to the California Department of Food and Agriculture's draft "Climate Resilience Strategy for California Agriculture (RSA)."

The Almond Alliance serves as the advocacy voice for California's almond industry, advancing the interests of its members across state, federal, and international policy arenas. The Almond Board of California (ABC), operating under a grower-enacted federal marketing order and the oversight of the U.S. Department of Agriculture (USDA), represents approximately 7,600 growers and more than 100 processors. Nearly 70% of these growers are considered small farming operations. California produces 100% of U.S. commercial almonds and nearly 80% of the global supply, with orchards spanning roughly 1.5 million acres across the Central Valley. In 2024, almond production reached 2.80 billion pounds.

Overall, we recognize the intent behind the strategy's key objectives and goals. However, we would emphasize that implementation on the ground will depend not only on the sector's overall economic sustainability but on the profitability of individual growers. The strategy cites a 2020 study showing that growers receive, on average, $0.16 from every dollar spent by domestic consumers. The core challenge in California is whether that $0.16 is sufficient to cover growers' cost of production **and** return a profit—one that enables continued investment in the strategy's priorities. The strategy also correctly notes that fluctuating market demand places additional pressure on already narrow margins.

Over the past four years, California almond growers have faced production costs that consistently exceed average market prices, a situation that is clearly unsustainable. During this period, almond prices averaged roughly $1.76 per pound, while cost-of-production estimates reached as high as $2.50 per pound. The strategy correctly notes that growers are under severe financial pressure due to inflation, rising input costs, increases in labor expenses, and the high cost of land and equipment. We would add another critical factor to this list: the burden of

regulatory compliance. In fact, we believe regulatory compliance is significant enough that it should be considered as a fourth pillar within the strategy.

The strategy notes a 2006 study that estimated the annual cost of regulations to California producers at $2.2 billion or roughly 6.5% of the value of the state's agricultural production. A 2025 study by CalPoly's Lynn Hamilton and Michael McCullough: "Two Decades of Change: Evolving Costs of Regulatory Compliance in the Produce Industry" reported: "Increased compliance requirements in 2024 bring the grower's total costs of regulation to $1,600.12 per acre, which is a 63.7% increase from 2017 and a 1366% increase since 2006." While we're appreciative of the strategy's focus on simplifying and streamlining regulatory compliance reporting –the reality is that our own regulatory schemes are contributing to a less-than sustainable agricultural economy – that further erodes the ability of individual growers – especially small farmers - to invest their own capital in the types of practices and program's promoted by the strategy.

To date, we see little evidence that the marketplace is prepared to compensate growers for the significant investments they are being asked to make in climate-resilience practices, and we remain skeptical that this will change absent meaningful structural commitments. While California growers operate under the most stringent regulatory environment in the world, they are also experiencing audit fatigue driven by the growing number of food safety, social responsibility, and sustainability audits and certifications—each of which further narrows already thin margins.

The strategy notes that "many growers voluntarily participate in third-party certification programs to ensure sustainability, traceability, and food safety." In practice, these programs are not voluntary; they are prerequisites imposed by distributors, wholesalers, and retailers for market access. As a result, growers often bear both the cost of on-farm practice changes, and the expense of audits and certifications yet receive the same rate of return from buyers. Given what we know, we recommend operating under the assumption that consumers will not pay more for climate-smart practices through higher returns.

While it is worthwhile to explore voluntary carbon markets, the experience to date mirrors what growers see with the broader value chain: most of the added value is captured after the crop leaves the farm. The same holds true for carbon credits, where registries, project developers, brokers, and verification and assurance auditors each take a share of the value generated by growers' on-farm practices. For this reason, we recommend a highly pragmatic approach to the facilitation of voluntary ecosystem services and carbon markets.

Specifically, we offer the following comments regarding the draft:

Key Objectives

Support a Thriving and Resilient Food Sector. We support efforts to promote the wellbeing and health of our workforce; however, we also recommend including a focus on workforce development to prepare for the new technologies, practices, and challenges the industry will face through 2050.

- **Ensure a Water System for Food System Resilience in a Hotter, Drier Future.** We appreciate the strategy's capture of a very complex issue area. We recommend a discussion regarding improving water-use efficiency through adoption of new innovative technologies. For example, growers have very little control regarding water deliveries from their irrigation district. We believe that development of on-demand systems will significantly improve water-use efficiency. An excellent example is the South San Joaquin Irrigation District's pressurized pipeline network that allow growers to schedule water deliveries by computer or mobile phone that integrates weather forecasts, evapotranspiration data and field data. As with nitrogen-use efficiency, soil quality and water holding capacity are critical to improving water-use efficiency. We encourage ongoing focus on research regarding water-use efficiency.

Reduce the Burden of Regulatory Compliance. As previously noted, we recommend that this be incorporated into the strategy. Statutory and regulatory requirements should be reviewed to determine whether they remain aligned with the state's labor and environmental policy goals, and this review should occur on a regular basis. Over time, there may be simpler and less costly ways to meet reporting and compliance obligations.

Goals

Goal 1: Increase and Enhance Technical Assistance. This goal will be critical to facilitate new ways of moving information to growers that are traditionally channeled through researchers, farm advisors and ag groups. We are supportive of the strategy's focus on improving broadband access in agricultural areas to serve as the backbone of integrating the services of technical service providers. Will there be a metric to track the success in this area?

Goal 2: Enhance Program Effectiveness. We recommend providing a clearer, more straightforward statement in this section, as the current language makes it difficult to understand exactly what is being proposed.

Goal 5: Demonstrate and Invest in Innovation and Technology. There should be careful consideration of whether a novel technology is truly viable so that resources are not wasted. We understand the importance of encouraging innovation, but it must be grounded in practical implementation.

Equity Principles

Financial Viability. We support the principle of Financial Viability and the goal of ensuring participation and financing options that work for all California growers. At the same time, we recognize that larger farms are often able to adopt new technologies and efficiency improvements more quickly than smaller operations. As a result, investments must be carefully targeted to ensure smaller growers receive the support they need, while also acknowledging that achieving climate-resilient practices at scale will require collaboration with larger growers.

Additional Items

Crop Insurance and Specialty Crops
We recommend consideration of a discussion regarding "risk mitigation" provided by the implementation of climate resilient practices – as a factor in underwriters costing of insurance for specialty crop growers. Risk mitigation provided by implementation of climate resilient practices could also be discussed as a factor for lowering lending rates.

Investment in research for Precision Agriculture technology.
We are very supportive of the demonstration and investment in innovation and technology. We also would recommend acknowledgement of the challenges faced by specialty crop production in this area – as there are hundreds of crops each with unique culture and management – that typically are not going to easily attract investment. There will be challenges for small growers regarding adopting new technology due to costs. This may be an area to focus on Financial Viability, i.e. focus on projects that ensure participation and financing that work for all growers.

Ecosystem Markets
We agree that there are untapped opportunities for growers to benefit from ecosystem services, carbon markets, and supply-chain incentive programs that could meaningfully reward the adoption of climate-smart agricultural practices through higher returns.

We encourage the strategy to recognize several critical needs:

- The importance of developing emissions factors for practices relevant to California's diverse specialty crops.

- The reality that, in many cases, the supply chain does not compensate growers for voluntarily implementing on-farm sustainability and climate-resilient practices.
- The need for continued discussion around state-sponsored protocols, additionality, and permanence.
- And the need for lower-cost, more accessible verification methods for climate-smart agricultural practices at the field level.

Groundwater use and recharge.
We are very supportive of investment to ease pressure on growers and communities while implementing SGMA. We recommend a discussion regarding an actual analysis of the needs posed by the retirement of up to 1 million acres of farmland and the role the state in addressing the economic and environmental impact of that transition.

Promote Responsible Nutrient Management
We recommend making the narrative more specific to California agriculture's actual nutrient management challenges. For example, one cited reference attributes eutrophication to wastewater runoff from the large population in Southern California, while another focuses on agricultural runoff in Monterey County. In contrast, the predominant issue in the Central Valley is groundwater leaching rather than surface water runoff.

We also encourage including a discussion on advancing CDFA's FREP program to push the boundaries of research aimed at improving nitrogen-use efficiency—from practices that enhance soil quality and water-holding capacity (which affect nitrogen demand) to the development of real-time, grower-accessible data on plant-available nitrogen.

In closing, we appreciate the opportunity to provide input on the draft Climate Resilience Strategy for California Agriculture. California's almond industry remains committed to advancing climate-smart practices, but long-term adoption will depend on practical implementation, regulatory clarity, and economic conditions that support grower viability. We look forward to continued engagement with CDFA to ensure that the final strategy is both achievable on the ground and reflective of the realities facing California almond growers.

Sincerely,

Alexi Rodriguez
President and CEO