September 25th, 2017

Maggie Soffel
Planning & Development Services
5510 Overland Ave, Suite 310
San Diego CA 92123
maggie.soffel@sdcounty.ca.gov

RE: Climate Action Plan (CAP) Public Review PDS2015-POD-15-002, PDS2016-GPA-16-007, LOG NO. PDS2016-ER-16-00-003

Dear Ms. Soffel:

On behalf of the San Diego Food System Alliance, please accept this comment letter for the County of San Diego's Draft Climate Action Plan for the unincorporated areas of the County. The Alliance is a collaborative of 40 Voting Members and over 100 groups in our network committed to creating an equitable and sustainable food system in San Diego County. Our network consists of experts in a variety of food system issues and organizational representatives from local government, nonprofits, and food businesses. With the most number of organic farms and small farms than any other county in the nation, San Diego County has the potential to take on a leadership role in supporting our local food producers and consumers to make sustainable choices. We believe that the Climate Action Plan is a critical opportunity to fulfill this important vision.

Agriculture and food systems is an important driver of San Diego's economy. If this economy is not supported through the measures provided by the Climate Action Plan and ecological synergies leveraged through co-benefits, our food system will not sustain the level of productivity into the future.

Below, we emphasize the recommended strategies provided during the Stakeholder process, focused on Consumption Behaviors, Agriculture and Solid Waste, as these are critical elements to ensure that we have a resilient food system for future generations. For the Agriculture section, we have additional insights gathered in an upcoming report, *Linking Climate-Friendly Farming Practices to San Diego County's Climate Action Plan: An Opportunity Analysis of Carbon Farming in the Unincorporated County*. This report, prepared for the San Diego Food System Alliance by Batra Ecological Strategies will be finalized by Oct/ Nov 2017 and we urge that the details and measurements from the report be included in the current Climate Action Plan. The County of San Diego has an important role in influencing its citizens and the private-sector in this undeniable anthropogenic climate crises which is real and urgent.

1. **Consumption Behaviors – Reduce Consumption of Carbon Intense Foods**

The International Panel on Climate Change (IPCC) found that the greatest potential for emissions reduction from agriculture exists on the demand side. Our appetite for meat is a major driver of climate change. US consumption per capita is the highest in the world, after Luxemburg and three times the global average. The USDA recommends approximately 737 g of meat, poultry, and eggs per week; yet, U.S. consumption per capita is on average 2,254 g per week[1]. Livestock production accounts for 14.5% of global anthropogenic GHG emissions, more than the entire transportation sector, and 25% of the global water footprint[2]. In California, animal feed production consumes a quarter of California's irrigated water[3]. The increasing efficiency of animal agriculture and resulting low prices due to industrial agriculture practices, which attributes to air, water, and land pollution, is transitioning meat from an occasional food to an everyday food, particularly in industrialized nations. If current global and US meat and dairy consumption trends continue at current growth rates, GHG emissions from meat and dairy production will — by itself, even without non-agricultural sources of GHG emissions included —cause global emissions to nearly exceed the 2050 emissions threshold of 2°C increased warming over pre-industrial temperatures. Even if every other sector dramatically reduced its emissions, we could not meet those targets with current meat consumption trends[4].

[1] [1] https://health.gov/dietaryguidelines/2015/guidelines/chapter-1/a-closer-look-inside-healthy-eating-patterns/#callout-meat-poultry
http://www.unep.org/pdf/unep-geas_oct_2012.pdf

[2] http://www.fao.org/news/story/en/item/197623/icode/
http://waterfootprint.org/media/downloads/Hoekstra-2012-Water-Meat-Dairy_1.pdf

[3] 2013 USDA Farm and Ranch Irrigation Survey

[4] Bajželj B, Richards KS, Allwood JM, et al. Importance of food-demand management for climate mitigation. Nat Clim Chang. 2014;4(10):924-929. doi:10.1038/nclimate2353

Organizations across the world are calling for meat and dairy reductions, especially in industrialized nations, where consumption is the highest. Furthermore, cities and institutions across the nation are also taking on this call as a carbon reduction and chronic disease prevention measure. A *less meat, better meat* approach could generate important health benefits, cost savings, and GHG reductions. For example, the City of Cincinnati found that if 10% of Cincinnatians ate meat one less day per week, CO2 emissions would be reduced by 75,000 tons per year[5]. The overconsumption of meat is linked to costly diet related diseases like heart disease, diabetes and some cancers[6]. A reduction in overall meat consumption would generate important health benefits and cost savings for the county and reduce GHGs while freeing up budgets to purchase meat produced in more sustainable agriculture systems, such as those practiced in San Diego County. In contrast to industrial systems, livestock grazed on grasslands can help sequester carbon on rangeland and offer a healthy alternative to industrially produced meat. Promoting a healthy, reduced meat diet and encouraging a transition to local and sustainable meats can have positive health and environmental impacts, including reducing the use of and in some cases restoring natural resources.

Key strategies to support the CAP includes County procurement and broad public education San Diego's Climate Action Plan should support strong implementation and tracking of Eat Well Practices and set specific targets for reducing the purchases of animal foods by county agencies or for food service that operates on county property. Eat Well Practices are properly implemented and fortified by the counties Climate Action Plan, they will help significantly reduce the climate impact of the 7 million meals served by San Diego County each year. These impacts can easily be tracked using carbon footprint and procurement data. It can also promote and encourage shifts and tracking of food procurement by large institutions that serve food in San Diego, like the San Diego Unified School District.

2. Agriculture's Carbon Sequestration Potential & Ecological Co-Benefits

Agriculture contributes to over 20 percent of global anthropogenic greenhouse gas emissions. Moreover, agricultural intensification has had major detrimental impacts on the terrestrial and aquatic ecosystems of the world. The doubling of production during the last 35 years was associated with a 6.9 fold increase in nitrogen fertilization, 3.5 fold increase in phosphorus fertilization, and a 1.7 fold increase in irrigated land[7].

In stark contrast to the carbon intensive practices of large-scale industrial agriculture, the organic and sustainable practices agriculture systems widely practiced in San Diego County, the county with the largest number of small and organic farms in the country, can help reduce GHG emissions. Farms using organic methods emit from one-half to two thirds less carbon dioxide per acre of production than large industrial farms[8]. These systems also improve soil structure and water-holding capacity and are more resilient in periods of drought.

Furthermore, agricultural land can serve as an effective GHG sink over the long-term only if agricultural systems are adopted which improve overall soil quality and provide for relatively stable GHG reduction or sequestration that can be verified and measured with reasonable accuracy. A suite of practices called "carbon farming practices" positioned to support the County's CAP goals offer multiple benefits including: 1) reducing GHG's, 2) building soil health, and 3) strengthening climate resilience.

San Diego County agriculture can help mitigate the effects of climate change and needs to be a stronger strategy within County's CAP. Permanent crops, such as San Diego County's top food crops (by dollar value), citrus and avocados, are already effectively storing carbon. Farmers in San Diego County currently have in excess of 3 million trees, which sequester approximately 48 pounds of carbon per tree each year[9]. Sustainable animal husbandry, such as that practiced in San Diego County, can also increase carbon storage in local agricultural working lands. The report *Linking Climate-Friendly Farming Practices to San Diego County's Climate Action Plan: An Opportunity Analysis of Carbon Farming in the Unincorporated County* highlights the County's opportunities to support carbon sequestration and ecological co-benefits through agriculture. Significant portion of the recommendations around Ag Carbon Sequestration Potential & Co-Benefits below were provided by Puja Batra, PhD of Batra Ecological Strategies, author of the report. We strongly encourage the County of San Diego to refer to this report to develop a robust Climate Action Plan to support local agriculture.

---

[5] https://www.chathamhouse.org/sites/files/chathamhouse/publications/research/20151124DietClimateChangeWellesleyHapperFroggattExecSum.pdf

[6] https://www.chathamhouse.org/sites/files/chathamhouse/publications/research/20151124DietClimateChangeWellesleyHapperFroggattExecSum.pdf

[7] http://www.fao.org/docrep/005/y4137e/y4137e02b.htm

[8] http://www.globalagriculture.org/fileadmin/pics/weltagrarbericht/FOE_Farming_for_the_Future_Final.pdf

[9] http://www.arborenvironmentalalliance.com/carbon-tree-facts.asp

San Diego County agriculture is well positioned to be a part of the climate solution; however, many farms face challenges, such as high water and land costs, that risk shuttering their operations and undermining agriculture's carbon sequestration potential. The County of San Diego should actively engage and protect farming in San Diego County in order to mitigate the effects of climate change. San Diego farms can make a substantial contribution to the County's GHG reduction efforts. Carbon sequestration by trees and other permanent crops, use of organic soil amendments and mulches, delivery of recycled water to farms, rangeland improvements, and voluntary farmland preservation efforts will pay dividends in reducing GHGs.

3. Solid Waste

While the Solid Waste section refers to the Strategic Plan to Reduce Food Waste, Solid Waste is the 3rd largest emissions category, accounting for 11% of total emissions. Its implementation is labeled as high cost. Yet implementation of the Strategic Plan to Reduce Food Waste will only yield 3% benefit by 2030. Overall, we believe that the CAP should select preference for the high diversion strategies that will yield the highest GHG benefits. The CAP should also leverage opportunities around cross-departmental/ cross-sectoral ecological co-benefits such as composting (waste diversion) to agriculture (compost use), water efficiency and water-wise gardening (compost use) and carbon sequestration (compost use).

RECOMMENDED CHANGES:

In Chapter 1, Introduction

- Consumption Behaviors
    - While several efforts of the Live Well Food System Initiative are mentioned (State of Food System Report, food donation, healthy retail, and Eat Well Practices), there should be more emphasis on the importance of the Eat Well Practices in its ability to impact the Scope 3 indirect carbon emissions. There is no explicit mention of the important intersection of diet, climate, and public health around the Eat Well Practices, including recommendations for serving less and better meat within foodservice operations at county facilities and leased sites with county jurisdiction.

In Chapter 2, Greenhouse Gas Emissions Inventory, Projections and Reduction Targets

- Consumption Behaviors
    - Provide an explanation of indirect Scope 3 emissions and information on the significant climate impacts from food production and systems. These emissions are linked to consumption habits which procurement officers and residents should be aware of. For monitoring and calculating, Friends of the Earth has been working with a tool to measure emissions from food consumption using life-cycle assessments (LCA) data. County procurement data can easily be quantified to meet the criteria around emissions "that can be readily monitored and reduced through County actions".
- Agriculture's Carbon Sequestration Potential & Ecological Co-Benefits
    - Quantification measures from the report *Linking Climate-Friendly Farming Practices to San Diego County's Climate Action Plan: An Opportunity Analysis of Carbon Farming in the Unincorporated* County should be referred to in this section for agriculture's ability to not only reduce its own footprint (estimated in the CAP) but also to offset emissions of other sectors. We cannot positively conclude that agriculture in San Diego County is a positive emitter of GHGs. Unlike other parts of CA, most croplands in SDC are orchards which are C-sequestration practices.
    - Wildfire was not factored into the baseline emissions. While open space/ag emissions are very difficult to fully account for, the major categories or emissions such as wildfire – which have in past years been estimated by EPIC (2008) -- should be included in baseline.

In Chapter 3, Strategies and Measures

- Consumption Behaviors
    - T-1.2: Include Eat Well Practices as a key measure in the CAP with the following goals:
        - Reduce carbon and water footprint of total beef, pork, chicken, turkey, and dairy purchases by 20% by 2030
        - Increase organic and sustainable foods to 20% of total food purchases by 2030
        - Purchase 20% of total meat, poultry, eggs, milk, and produce purchases from the San Diego County region by 2030
- Agriculture's Carbon Sequestration Potential & Ecological Co-Benefits
    - Strategy A-2: Include preservation of existing orchard trees to support agriculture operations while sequestering carbon. New trees will take decades to reach the levels of carbon storage and

sequestration potential that existing trees have. Sequestration by a larger (older) tree is higher than that of a smaller (younger) tree in absolute numbers as well as rate, according to recent findings. This means that as trees get older, they continue to grow and sequester carbon at ever higher rates. Keeping older living trees in the ground is critical to any sequestration strategy. Investments in drivers of orchard tree loss, such as developing recycled water for agriculture and applying significantly lower water costs for its use by farmers, will help curtail losses of our existing sequestration and croplands and increase potable water availability for other uses.

- Strategy A-2: Tree planting strategy for agriculture in the CAP is not actually linked explicitly to agriculture. It is for residential trees and County owned land, the latter which may or may not be farmland. No assumptions are listed for this strategy in Appendix C, so it is unclear what survivorship rates are assumed or whether water requirements have been factored in. Residential trees planted at the rate of 2 per residence may not actually see any survivorship. Property developers should be accountable for planting and maintaining the trees for the first 3 years such that at least 2 trees survive per residence by year 3. This required survivorship rate requires a higher planting rate. Water for these trees will also have a footprint associated with it, so net sequestration is likely to be lower than estimated.
- T-1.2: Fertilizer baseline in CAP does not have a strong reduction strategy associated with it. This should be considered as a primary measure. Carbon farming practice of compost application has sequestration and fertilization benefits, and also builds water holding capacity, several other farming benefits, and will provide a market for compost produced under the County's Strategic Plan to Reduce Waste. Setting targets for fertilizer use reduction, with carbon farming as a support measure, will build County commitment to soil friendly practices that have several resilience co-benefits, and will build momentum and interest in carbon farming in general.
- T-1.2: Expand PACE's impact. 443 acre goal for 2020 and the additional 4,430 acre goal by 2030 seem conservative based on overall acreage
- T-1.2: Include policies that provide agriculture production incentives and remove barriers to producing this local food to support the measure, "promote consumption of locally grown and raised food". Without local food, we cannot encourage the public to purchase local food.
- T-1.2: While there are few dairy operations, San Diego County holds thousands of small farms, equestrian facilities, chicken farms and other manure producers. Enhanced onsite manure management education/outreach and manure management including composting facilities in agricultural areas where compost is returned to growing soils would be beneficial.
- W-1: Reduce potable water consumption while increasing available supplies of potable water for urban uses by supplying farms with recycled water so they can roll off potable water supply. Supporting agriculture operations through water cost savings is critical to support carbon farming.
- T-1.3: Regarding farmers markets promotion, similar to comment previously, more support needs to be provided to farmers to ensure agriculture operations are successful. Consider policies that provide agriculture production incentives and remove barriers to producing this local food.

In Chapter 4, Vulnerability, Resiliency and Adaptation

- Consumption Behaviors
  - Add: In order to encourage community resilience, residents of San Diego County must be aware of the sources of their sustenance, including imported food and related emissions and water use.

In Chapter 5, Implementation and Monitoring

- Consumption Behaviors
  - Consider adding a protocol for tracking the food related GHG emissions within public institutional foodservice and within facilities that are leased on public lands. Tools for this exist and are described below.
  - Consider adopting the Good Food Purchasing Policy beyond the County's Eat Well Practices, which stipulates measurement and reduction of GHG emissions from food with support provided by the Center for Good Food Purchasing Policy.
  - The GHG reductions from compost can be estimated using CDFA-developed tool online: compost-planner.com <http://compost-planner.com>
- Agriculture's Carbon Sequestration Potential & Ecological Co-Benefits
  - Carbon farming should be given more prominence in the CAP as a strategy, and also to commit to measuring emissions and multiple co-benefits from demonstration projects done on County-owned lands so that future revisions of the CAP can include it as an enforceable measure.

In Chapter 6, Outreach and Engagement

- Consumption Behaviors

- Incorporate language that explains the cost-effectiveness of healthy, climate-friendly foodservice on public facing documents and notices, to increase awareness and community support of climate-friendly foodservice. Specific goals include:
  - Inform the public about the carbon and water impact of food choices
  - Engage the public in the prevention of food waste especially carbon intensive foods

Thank you for your consideration. I am available to answer any questions you may have regarding the recommendations submitted on behalf of our coalition.

Elly Brown

Alliance Director
San Diego Food System Alliance
http://www.sdfsa.org/
919-328-0046
elly@sdfsa.org