STOPWASTE
at home • at work • at school

StopWaste is the Alameda County Waste Management Authority, the Alameda County Source Reduction and Recycling Board, and the Energy Council operating as one public agency.

April 10, 2017

California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Dear Chair Nichols and Board Members:

We are pleased to submit the following comments on the Air Resources Board's 2017 Scoping Plan Update. We offer comments and recommendations on measures in the Buildings, Energy, Natural Working Lands, and Waste sectors.

In general we strongly support the measures, implementation actions, and intent of the measures. We invite ongoing collaboration with the Air Resources Board to work together toward our common goals.

StopWaste currently leads initiatives in the waste, water, and buildings/energy sectors in Alameda County and the Bay Area region. These comments have been compiled by staff across our program areas that are well versed in their respective sectors.

Please feel free to reach out to Miya Kitahara, program manager (miya@stopwaste.org) for clarification and follow-up dialog with the relevant staff. We look forward to combining our efforts to maximize our collective impact.

Sincerely,

Wendy Sommer

Wendy Sommer
Executive Director

1537 Webster Street
Oakland, CA 94612
p 510-891-6500
f 510-893-2308
www.stopwaste.org

General Comments

I. Support resilient economic growth by 1) measuring leakage and 2) enabling economic models that decouple growth from resource use

We support the goal of promoting resilient economic growth, described on pp 17-18 in the draft plan, and offer the following suggestions to further advance this goal:

1) Measure leakage

We agree with the importance of considering emissions leakage when evaluating policy scenarios (such as pp 25, 47). On p. 53, the draft plan illustrates the leakage problem on both employment and emissions: *"Goods that are currently produced in California would be produced elsewhere potentially reducing in-state employment. Assuming California residents still want to buy these products, they would be produced out-of-state and imported in, potentially increasing GHG emissions."*

We further encourage the ARB to consider what leakage – in the sense of emissions occurring elsewhere for products consumed in California – already exists, and whether leakage has increased or decreased over time. In order to answer these questions, we encourage the ARB to consider analyzing upstream/embodied emissions or conducting a consumption-based emissions inventory to supplement and overlay onto established inventory methods. Examples, resources and methodologies to support this are available from the State of Oregon Department of Environmental Quality, UC Berkeley Cool Climate Network, Stockholm Environment Institute, Deloitte Access Economics, and UK House of Commons Energy and Climate Change Committee.

Measuring upstream emissions allows the State to quantify the potential *net global GHG reduction benefit* of increasing territorial emissions if they remove equal or greater emissions occurring elsewhere. This allows the State to embrace adding economic activities that may increase in-state emissions as long as the activity is less carbon-intensive per unit of output. This outcome is particularly likely if the economic activity brings production and consumption closer together and causes production to occur under California's leading clean energy and emissions reduction policies.

2) Enable economic models that decouple growth and resource use

California is a global hotbed for technological advances. New technologies have unlocked unprecedented economic opportunities to meet consumer demand while using fewer resources. Circular economy principles are designed to decouple growth from resource constraints. Examples of new models include leasing products and selling products as services, virtualization, asset use optimization via sharing and resale platforms, product redesign and use of advanced materials, and reverse logistics for remanufacturing and recycling.

We encourage the ARB to consider using a circular economy framework to inform its effort to support resilient economic growth. Specifically in the draft Scoping Plan, circular economy can be inserted into the discussion on pp 17-18. This would expand the definition of clean economy initiatives beyond the industries typically considered "clean tech" and foster opportunities to improve the carbon-efficiency of all sectors of the economy. The Ellen MacArthur Foundation is a resource for exploring circular economy further and understanding the role of government in creating enabling conditions.

II. Provide alternative recommended local plan-level GHG emissions reduction goals ("Recommended Goals")

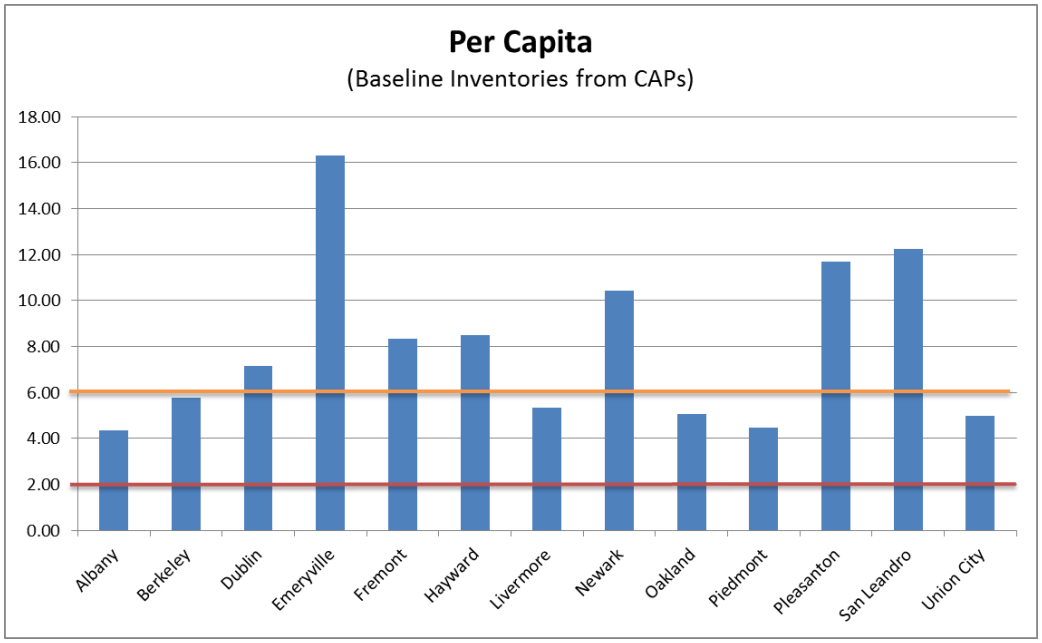
Thank you for recognizing that "*per capita emissions goals may not be appropriate in some jurisdictions, mass emissions and service population emissions are also important to discuss*" (p. 135). Based on a discussion with staff from our member agency Cities, we offer the following alternatives to the Recommended Goals of 6 MTCO2e per capita and 2 MTCO2e per capita for 2030 and 2050:

- **Percent-below-baseline mass emissions goals when more aggressive** than the Recommended Goals. This addresses the unintentional disincentive for action created for communities whose emissions are already below 6 MTCO2e per capita. The two goals could be presented together, with the recommendation that jurisdictions adopt whichever is more aggressive.
- **Goals of MTCO2e per service population** instead of residential population only. This makes the population-normalized goals more appropriate across a wide diversity of community types which play distinct roles in regional GHG reductions. In the figure below, Emeryville is a striking example, as their community mix is dominated by commercial buildings, yet their residential household footprints are lower than the county average due to compact, efficient dwelling units and access to transit.
- **Percent-below-baseline on a per capita basis.** This allows communities to begin where they are and also normalizes for population growth. Unless a community expects a dramatic shift in the composition of their sectors, per capita would be an appropriate metric.

Focus on 2050 goals. While a per capita approach allows for population growth in cities in which growth would reduce regional emissions, the 2030 target may also encourage growth in less sustainable geographies. The latter type of development could feasibly align with the 2030 goal, but would impede local and regional ability to meet the 2050 goal.

It is critical to local government planning success that community type diversity is reflected in goal setting. Based on multiple variables including mix of sectors (residential, commercial, industrial, and agricultural) there will always be a wide range of per-capita emissions. The figure below shows per-capita baselines for Alameda County jurisdictions. Even within one county there is a wide range, and these communities are not as diverse as across the state.

Some jurisdictions host regional services, such as agriculture and industry, and are consequently above the State per-capita average. Applying a flat per-capita emissions target may cause underproduction and leakage from over-emitting jurisdictions (analogous to the state-level leakage discussion on p. 53). At the same time, some communities are already below the 2030 Recommended Goal. Several cities in Alameda County have 2005 baseline emissions that are below 6 MTCO2e. For these cities the 6 MTCO2e goal sends a counterproductive message for climate action if they were already aiming for more aggressive targets such as 40% below baseline for 2030.



Note: StopWaste staff extracted the emissions baseline value and population count for the corresponding baseline year to compile the per capita emissions values in the graph. It is provided for illustrative purpose only and StopWaste does not claim accuracy of the data presented. The baseline inventories were mostly conducted following the CARB recommended U.S. Community Protocol. Some exclude sources for which they do not have access to data, such as industrial energy usage.

Comments on Low Carbon Energy Sector

I. **We support the "potential additional actions" to phase out fossil fuels** listed on p. 92, specifically:

- Decreasing usage of fossil natural gas through efficiency and fuel switching
- Acceleration of deployment of heat pumps; consideration of large-scale electricity storage
- Establishing a pathway for zero carbon buildings.

Local governments are considering parallel initiatives through their local climate action planning, and would benefit from State leadership in the form of State regulatory changes to promote fuel switching, heat pumps, and large scale storage; best practices and guidance for local government support; and funding to move the market toward these new technologies.

Comments on Natural and Working Lands Sector

I. We strongly support the effort to promote the use of compost on natural and working lands. StopWaste encourages the ARB to include the following actions when implementing the scoping plan and to support these measures in other state agencies plans (e.g., CDFA's Healthy Soils Initiative):

- *Require* projects to use compost from permitted facilities participating in the US Composting Council's (USCC) Seal of Testing Assurance (STA) program. Participation in the STA program means that compost is regularly tested by labs that use a defined suite of standardized testing methods developed by the USCC to test for a standard set of parameters.
- *Give preference* to the use of materials listed by the Organic Materials Review Institute (OMRI) or by CDFA as Organic Input Materials (OIM), or high-quality, low-contaminant non-OMRI/OIM compost made from municipal source-separated food and green waste. We encourage the ARB to support state agencies in the development of clear compost quality labeling.
- *Prohibit or support efforts to prohibit* the land application of methane-generating compost feedstocks, including manure, greenwaste, biosolids, or digestate, as well as compost from mixed municipal solid waste (MSW) feedstock, unless it has been shown to meet standards for agriculture or grazing applications.

II. We strongly support ARB's goal to engage local communities and private and public landowners to implement best practices for carbon sequestration by undertaking actions that reduce on-farm GHG emissions (p. 116). We recommend that ARB work with CDFA's Healthy Soils Initiative (HSI) to include landowners as eligible grantees for HSI incentive funding for both compost application and demonstration projects. Ranchers often lease grazing land, so engaging the land owner of a given site will be critical to successful long-term management of and GHG reduction on the property. In addition, public agencies, including cities, counties, water districts, and other special districts own rangelands in California. Public entities may be better positioned to take on upfront costs of carbon farm planning and implementation, where an independent rancher or farmer may not have the resources or time. In addition, public agencies have motivation to become early adopters either to work toward the goals stated in their own climate plans or because carbon farming dovetails with other existing agency goals and activities. Public agencies should also be considered as priority demonstration sites because they serve the public by providing education and can model innovative practices.

III. We strongly support ARB's future work to support research to understand emission factors from and sequestration potential in soils throughout California (p. 119). Given that the state WELO requires application of compost on all new permitted landscape construction over 500 sf, we recommend that research be conducted on sequestration potential of urban compost-

amended soils and unamended soils. We also recommend supporting research comparing sequestration of carbon in soils protected with compost-based erosion control BMP's (compost blankets, berms, and socks) compared to soils with hydroseed/wattles/fiber matrix.

IV. **Compost use in agriculture should be identified as a strategy to reduce the use of synthetic nitrogen fertilizers in crop production.** Compost, while generally low in nitrogen, stimulates the natural nitrogen cycle in the soil, reducing the need for synthetic inputs, which act as nitrogen sources. (p. 113)

V. **We encourage ARB's support of urban green infrastructure** (p. 116). To meet this goal, we recommend leveraging existing sustainable landscape standards, such as Bay-Friendly Rated Landscapes or Sustainable Sites Initiative (SITES).

Comments on Waste Management Sector

I. **Food waste prevention and food recovery should be prioritized.** We recommend the following additions:

- Add prevent food from going to waste then "Capture edible food before it enters the waste stream and provide to people in need." (p. 122)
- In addition to "Providing incentives to develop and expand food rescue programs to reduce the amount of edible food being sent to landfills," (p. 125) preventing food waste from being generated should be prioritized and supported by incentivizing best practices such as food waste tracking technology and quantifying the amount and reasons for food loss. Our Smart Kitchen Initiative project is an example of working with institutional kitchens: www.stopwaste.org/preventing-waste/smart-kitchen-initiative
- Explore ways to support depackaging food to increase donation of "hard to donate" surplus food such as prepared foods.
- Add policy highlight bullet under SB 1386 "20 percent of edible food destined for landfill is to be recovered to feed people in need by 2025" (p. 35)
- On p. 86, add "cross sector" benefit- Prevention and recovery of edible surplus food can reduce energy, land, water, transportation and other resources embedded in the production and waste management of food currently being composted and/or discarded in landfill.

II. **We support ARB's goals to reduce the volume of packaging-related waste in the disposal stream** (p. 121). We encourage ARB to explicitly support the existing waste reduction hierarchy of Reduce, Reuse, Recycle, Rot when articulating goals and measures in the scoping plan. In addition to ARB's stated goal of recyclability as a front-end design parameter, we recommend supporting State efforts to incentivize the potential for reuse and the use of recycled-content materials as higher priority design parameters.

III. **Composting and anaerobic digestion should be addressed as separate, complementary practices.** They have different siting requirements, GHG emissions reductions, and co-benefits. Anaerobic digestion should be treated not as an end in itself, but a precursor to composting. Digestate should be composted before applying to soil to maximize GHG benefits and other co-benefits, such as improved water-holding capacity. (p. 119)

IV. **StopWaste recommends that ARB research composting of mixed solid waste** (MSW) post-2030 as a pre-treatment to landfilling to reduce methane emissions from landfill and volume of waste to landfill, as is currently done in Europe (Stretton-Maycock and Merrington, 2009).

V. **Measures should focus on methane from landfills over composting facilities.** We appreciate that ARB has shown the emissions from landfills and composting facilities separately (p. 120), and recommend that in creating measures to reduce emissions that the emphasis be placed on landfill emissions, as composting facilities account for 6% of the total emissions. This context is critical to successful siting and permitting of new facilities. In the last few years, local air districts have imposed increasingly rigid and inconsistent requirements on not only new facilities, but also facilities transitioning from higher GHG/VOC emitting open windrows to low-emission covered aerated static piles. We appreciate that ARB has acknowledged the challenges associated with expansion composting capacity (p. 124), and encourage ARB to work with local air districts to reinforce ARB goals, including facilitating the expansion of compost production throughout the state.

VI. **We enthusiastically support ARB's goal to view waste as a resource,** and encourage ARB to use language that reinforces this goal throughout the scoping plan and other documents. For example, composting facilities should be considered "producers" rather than "processors." This language contributes to the development of clean source-separated organics and recycling programs throughout the state. (p. 122)

VII. **We support ARB's assertion that the State must develop targeted policies or incentives to support durable markets for biomass.** The Department of Water Resources' (DWR) Water Efficient Landscape Ordinance (WELO) requires 4 CY / 1000 square feet of compost and 3 inches of mulch on all new permitted landscape construction over 500 square feet. To that end we recommend that ARB support DWR in their on-going implementation and enforcement of the WELO by adding this ordinance to the list of on-going state measures in Section E: Waste Management and ensuring that any future ARB recommendations in the built landscape are WELO-compliant. (p. 115, 124)

Comment on Water Sector

I. **We support ARB's goals to make water conservation a way of life in California** (p. 127), and encourage ARB to explicitly support the State's Water Efficient Landscape Ordinance (WELO) in the goals and actions of the Scoping Plan.