



Californians  
Against Waste



August 20, 2008

Mary Nichols, Chair  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

**RE: Lack of Strong Recycling Actions in Draft AB 32 Scoping Plan**

Dear Chair Nichols,

We appreciate the Air Resources Board's extensive efforts to develop a comprehensive Scoping Plan to implement AB 32, but we have serious concerns about the lack of strong waste reduction, recycling, and composting recommendations in the draft plan. Recycling is one of the most accepted, proven and cost effective ways to reduce greenhouse gas emissions across sectors, and we urge you to reconsider including the following recommendations in the final Scoping Plan.

According to conservative EPA estimates, reducing current disposal by a modest 25% would reduce greenhouse gases by 5 MMTCO<sub>2</sub>E. Unlike many other greenhouse gas reduction technologies, recycling and composting are also widely accepted and have a proven economic track record. GHG reductions from this sector can be attained by utilizing and expanding the existing infrastructure without significant investment in new technologies or systems. Moreover, the CIWMB estimates that increasing the flow through California's existing materials recovery and recycling infrastructure will have twice the economic benefit of landfilling the same material.

**Commercial Recycling**

One of largest opportunities to increase recycling in California is through increased commercial sector and multifamily recycling. Since the passage of California's landmark waste reduction and recycling law, AB 939, local governments' diversion efforts have focused on recycling programs targeted at single family residences. As a result, the waste reduction potential of the commercial sector has been largely untapped. For instance, while the state as a whole diverts over 54% of its waste from landfills, large office buildings divert only 7% of their waste. These large office buildings have readily recyclable waste streams, and more than half of the materials disposed consist of paper and cardboard. Similarly, while the vast majority of Californians living in single

family housing have ready access to residential (curbside) recycling, nearly 60% of residents of multi-family housing still lack basic recycling service.

We are pleased that the Scoping Plan has acknowledged this sector's possible contribution to greenhouse gas reductions, but we believe that specific actions to increase commercial recycling need to be added to the recommendation. Specifically, the addition of the following recommendations (largely taken from the ETAAC report) would achieve significant greenhouse gas reductions from the commercial sector:

- Require any business that generates 4 or more cubic yards of waste per week to implement a recycling program that is appropriate for that type of business.
- Owners of multifamily dwellings should be required to arrange for recycling services that are appropriate for the multifamily dwelling.
- Set material-specific disposal limits for businesses that would restrict the disposal of recyclable materials -- such as cardboard, paper, or construction and demolition waste -- regardless of whether it is collected by a refuse company or hauled to the landfill by the business itself.

### **Composting**

Organic materials also offer an incredible opportunity for greenhouse gas reductions, particularly through increased composting. Over 12 millions tons of compostable organics are disposed in California landfills every year, where this material decomposes and produces methane, a potent greenhouse gas with a GWP of 25. The ARB has taken a strong leadership role in the development of more protective landfill regulations, and we encourage the continued efforts in the development of these rules. However, even these regulations can not adequately reduce the risk associated with fugitive emissions from landfills given the infeasibility of measuring, and complexity in calculating, fugitive loss from these inherently heterogeneous masses of mixed waste.

Given these uncertainties, and the persistent problem of fugitive emissions during the period between the time waste is put in place and the time it comes under the full influence of a landfill gas collection system, the most effective way to ensure emission reductions from landfills is to avoid the creation of methane in the first place by diverting organic materials from landfills.

Beyond the reduction of landfill methane, diverting organics from landfills to composting and anaerobic digestion results in a finished product that can help substantially reduce greenhouse gas emissions. Compost can serve as a very effective substitute for synthetic fertilizers, pesticides, and herbicides, which are all energy intensive in their production. Nitrogen based chemical fertilizers are significant sources of fugitive N<sub>2</sub>O emissions from application and biodegradation. Compost application also considerably lowers the amount of irrigation required for crops and landscaping (up to a 70% reduction), which would decrease emissions associated with the pumping and transportation of water. A shift from chemical fertilizers to compost would also help the state adapt to the effects of a changing climate, including a smaller snow pack and a greater propensity for droughts.

Although current research underway at the CIWMB will help further quantify the benefits of composting, the extensive research already available on this issue underscores the need for the

Air Resources Board to move forward with strong actions to divert organic materials from landfills. Both the composting measure and the agricultural fertilizer use efficiency measure in the Scoping Plan are underdeveloped and could be strengthened with the following discrete actions:

- Increase the use of compost within California's agricultural sector by providing financial incentives / GHG offsets for replacing fertilizers/pesticides with compost (e.g. some regions in Italy pay farmers to apply compost); also, develop California-specific crop specifications for compost
- Encourage the collection of food scraps with green materials (similar to the programs in San Francisco and Alameda County)
- Disincentivize the landfilling of yard trimmings by seeking legislative authority to remove diversion credit for green materials used as Alternative Daily Cover
- If cost-prohibitive mitigation measures for greenwaste composting become required by regional air pollution control districts or regional water districts, the State should offer financial incentives to help offset these costs to compost operations
- Boost the procurement of compost for use by Cal Trans and other State agencies; also incentivize the procurement of compost by municipalities for use in parks, schools, and general landscaping

### **Quantification of Emissions Reductions**

The ARB needs to take proactive steps to ensure that the benefits of waste reduction and recycling are properly accounted for in any future regulations or market mechanism adopted by CARB and in local planning tools. Once generated, "waste" materials flow through a complicated chain of custody, sorting, and processing that involves multiple industry stakeholders including local governments, private sector recyclers, waste management and manufacturing companies. Sometimes the final products and processes occur outside the state, or even the country. Due to the complexity of this process, no protocols have been developed to provide proper incentives to recycle, and they will likely only be established if ARB takes an active role in encouraging and funding their development, either directly or through CCAR. Although the ARB should determine which protocols are most ripe for development, the following would provide a good starting point:

- GHG savings through the use of secondary materials in the manufacturing process (i.e. glass manufacturing).
- Avoided methane emissions from not landfilling organic materials
- Avoided N<sub>2</sub>O emissions from reducing application of fertilizers/pesticides
- Reduced electrical demand from decreased agricultural irrigation

In addition to these protocols, the GHG implications of various waste management options need to be provided to local governments and corporate decision makers. This GHG assessment tool can be based on existing EPA models and does not have to meet the rigorous standards of a tradable offset. This methodology could then be integrated into local government protocols, business protocols, CEQA guidance documents, and other tools that seek to quantify the greenhouse gas impact of an entity.

In summary, we believe it is imperative for the ARB to take strong actions in the Scoping Plan to reduce greenhouse gas emissions through waste reduction, recycling, and composting. These

policies have a very successful track record, provide enormous co-benefits, and are very cost-effective. We look forward to working with you on the adoption of this essential part of an AB 32 implementation strategy.

Sincerely,

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