



## CITY OF OAKLAND



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

### **RE: ETAAC Report**

Dear Chair Nichols:

Thank you for the opportunity to provide input on the ETAAC Report. We would like to express:

1. Support for the following recommendations in Chapter IV:
  - J. Develop Suite of Emission Reduction Protocols for Recycling
  - K. Increase Commercial-Sector Recycling
  - L. Remove Barriers to Composting
  - M. Phase Out Diversion Credit for Greenwaste Alternative Daily Cover Credit
  - N. Reduce Agricultural Emissions through Composting

These are critical to supporting and expanding the state's existing recycling and composting infrastructure, and are low cost, environmentally sound methods of achieving greenhouse gas reductions using existing, proven processes.
2. Strong encouragement for the Report's recognition and validation of the hierarchy of waste reduction, reuse, and recycling stated at the outset of Chapter IV on page 4-14.
3. Concern that any waste-based energy technologies and feedstocks under consideration be addressed on an individual basis and in a full life-cycle comparison to source reduction, reuse, recycling and composting alternatives, as stated in ETAAC Report recommendation O in Chapter IV. Many waste conversion technologies have questionable net energy balances, especially high temperature material destruction processes applied to non source-separated, mixed feedstocks.

Using the US EPA's Waste Reduction Model (WARM) and waste characterization data published by the California Integrated Waste Management Board (CIWMB), the California Resource Recovery Association (CRRA) has calculated that if California's commonly recycled and composted materials that are currently disposed as mixed waste were instead recycled and composted, then the GHG emission reduction would be over 25 million MTCE. The WARM model allows measurement of CO<sub>2</sub> equivalence (MTCE) changes in greenhouse gas emissions through alternative waste management practices. CRRA's calculations have been verified by US EPA Region 9 staff.

The prioritized ordering of the waste reduction hierarchy to optimize resource conservation by reusing materials and repairing, refurbishing, and rehabilitating existing products and buildings to retain their form and function (and thus embodied energy) holds the potential for:


- substantially greater GHG reductions than recycling and composting alone; and
- creating 'green collar' jobs producing value-added contributions to the state's economy

According to research conducted by the Institute for Local Self-Reliance, for every 10,000 tons per year of discarded materials, composting creates 4 jobs, recycling creates 10-25 jobs and reuse creates 25-300 jobs, compared to only 1 job created by landfill disposal or incineration (<http://www.ilsr.org/recycling/recyclingmeansbusiness.html>). Thus, implementing strategies to reduce GHG emissions through reuse, repair, refurbishment, and rehabilitation supports the green collar job creation goals cited in Opportunity #5 on pg. 1-10 of the ETAAC Report, as well as development of more resource-efficient industrial processes also cited in Opportunity #5.

Reuse strategies significantly reduce, or in some cases eliminate, repetition of multiple carbon-emitting processes in raw material extraction, processing, and transformation, and the manufacture, and transport of finished products along the entire supply chain to consumers. Source Reduction and Reuse reduce the GHG emissions created by collecting and shipping discarded materials and products (often great distances) to disposal or recycling facilities. Source Reduction strategies also provide significant potential for GHG reduction through more efficient product packaging, distribution, and public education. Excessive and bulky packaging methods consume large amounts of energy in production, transportation and disposal. Shipping bulkier packages requires larger modes of transportation at all stages, which in turn increases GHG emissions.

We appreciate the work of ETAAC and the Air Resources Board in moving forward California's climate protection policy.

Sincerely,



Susan Kattchee  
Environmental Services Manager

cc: CARB Board Members  
Chuck Shulock, Assistant Executive Officer for Climate Change