



Californians Against Waste

Conserving Resources. Preventing Pollution. Protecting the Environment.

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Climate Change Blog

- Dec 11 - Recycling to Play Critical Role in State's Landmark Global Warming Plan
- Nov 21 - State Moves to Include Commercial Recycling in Climate Efforts
- Oct 15 - California Releases Global Warming Plan, Misses Recycling Opportunity

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Climate Change and Recycling

- GHG Staff Contact Info and Resources
- Important Documents
- Composting: A Greenhouse Gas Mitigation Measure
- CAW Letters on Greenhouse Gas Issues and Statewide Climate Change Policy
- Why Recycling?
- A Plan for California

Poll

Plastic bags cost \$250/household in retail costs and taxes. What fee level will motivate consumers to bring their own bag?:

- 15 cents/bag
- 25 cents/bag
- 35 cents/bag
- No Fee. Public Education.

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Composting: A Greenhouse Gas Mitigation Measure

Ton for ton, composting reduces GHG emissions from organics management over any other management option.

Compostable organics make up 30% of California's overall waste stream, contributing over 12 million tons annually to our state's landfills. In landfills, this material undergoes anaerobic decomposition and produces significant quantities of methane, up to 80% of which is not captured by a landfill gas system. Composting, on the other hand, is a fundamentally aerobic process, and well managed compost facilities do not produce any methane.



Composting offers an environmentally superior alternative to landfilling organics that eliminates methane production, provides a series of economic and environmental co-benefits, and has a substantial impact on greenhouse gas reduction.

- Composting organic material reduces GHG emissions compared to landfilling with energy recovery systems.** According to the most conservative estimates, which fail to account for many (if not most) GHG-reducing benefits of composting, California could reduce its GHG emissions by one million MTCO₂E by composting just 30% of the foodwaste that is currently disposed. This is equivalent to the carbon sequestered by 26 million tree seedlings grown for 10 years.
- Compost can significantly reduce agricultural energy demand.** Plants grown in compost-rich soil require less irrigation because of the increased infiltration and storage capacity of root systems and the reduction of water runoff, evaporation, and water usage by weeds. Research has shown that the application of compost can reduce the need for irrigation by 30-70%. Given that approximately 8% of the electricity generated in the state is used to run California's massive water supply infrastructure, a substantial decrease in water consumption would significantly reduce energy consumption.
- Composting provides nutrient-rich soils, which multiple studies have shown results in **greater carbon storage in crop biomass.**
- The application of compost results in a reduced need for GHG producing petroleum-based chemical fertilizer, pesticides, herbicides, and additives.** These chemicals are carbon-intensive in their production and emit large quantities of global warming pollutants during application and as they decompose in the soil. The use of compost can reduce the need for fertilizers for vegetable crops by 33-66%.
- The application of compost greatly increases the amount of carbon sequestered in soil.** Experimental studies have shown that increased carbon



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Climate Change & Recycling News

- Dec 12 - State OKs Tough Plan to Counter Global Warming (SF Chron)
- Dec 12 - Report Establishes Link Between Recycling, Climate, Energy (Waste News)
- Dec 11 - Editorial: Time for Candor on Climate Plan (Sac Bee)
- Dec 7 - Weintraub: Something in the Air (Sac Bee)
- Dec 4 - Assemblymen Niello Asks ARB to Delay Scoping Plan Adoption (Asm. Niello's Letter)

[older stories](#)

CAW Recycling News

- Dec 24- Lights Out Energy-efficient Tech Dims Edison's Bright Idea
- Dec 22 - British Columbia to Expand Existing E-waste Recycling Program
- Dec 19 - British Supermarkets to Cut Plastic Bag Distribution in Half
- Dec 18 - E-Waste Bill Introduced in Michigan
- Dec 17 - Cal EPA Releases Green Chemistry Initiative Final Report of Recommendations

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sequestration in soil from composting application was 6 to 40 tons of carbon per hectare.



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Sources Cited:

"Waste Reduction Model (WARM)." United States Environmental Protection Agency. <http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html>.

Conversion of 1 MMT CO2 to Familiar Equivalents. California Air Resources Board. <http://www.arb.ca.gov/cc/factsheets/1mmtconversion.pdf>.

Sharma, Girja, and Angus Campbell. Life Cycle Inventory and Life Cycle Assessment for Windrow Composting Systems. NSW Department of Environment and Conservation and The University of New South Wales. Sydney, Australia, 2003. <http://www.recycledorganics.com/publications/reports/lca/lca.htm>.

Water Supply Related Electricity Demand in California. Demand Response Research Center. California Energy Commission, 2006. <http://drrc.lbl.gov/pubs/62041.pdf>.

< [Important Documents](#) up [CAW Letters on Greenhouse Gas Issues and Statewide Climate Change Policy](#) >

(categories: [Green House Gas](#) [Composting](#))

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 - EPS Recycling
 - What do you Think about Excess Food Packaging?
 - 8/23 Free E-Waste Recycling Opportunity
 - "Take Back The Filter"
 - Brita Recycling Campaign
- more*

Mark Murray's Blog

- Dec 16 - CA Bottle Bill Processing Fees
 - Dec 15 - Action Plan: Pollution Prevention & Green Jobs
 - Nov 14 - CA Container Recycling Rates Climb
- more*

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