Understanding CEQA Guidelines: What You Need to Know for Recycling Infrastructure Projects

ILG Webinar

March 10, 2015

10:00am – 11:00am

INSTITUTE FOR LOCAL GOVERNMENT

Speakers

Christopher Calfee, Senior Council, California Governor's Office of Planning and Research (OPR)

John Davis, Administrator, Mojave Desert and Mountain Recycling Authority

Moderator

Jennifer Armer, Program Coordinator, Sustainability Program, Institute for Local Government

Sponsor

Howard Levenson, Deputy Director, CalRecycle

How to ask a question during the webinar

- Please type your questions into the question box at any time during the webinar.
- We will read your questions during the question period at the end of the webinar.

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- Promoting good government at the local level
- Practical, impartial and easy-to-use materials

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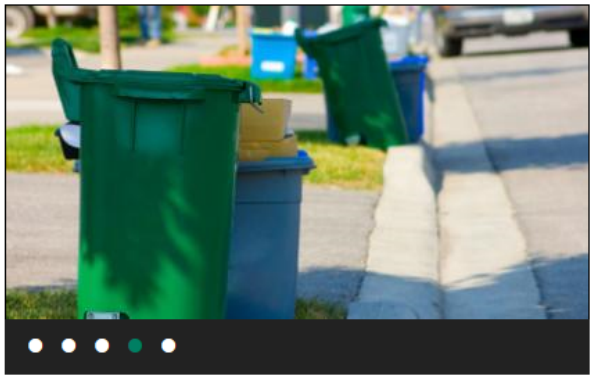
Ethics & Transparency

Public Engagement

Sustainable Communities

Collaboration & Partnerships



Webinar – Understanding CEQA Guidelines:

What You Need to Know for Recycling Infrastructure Projects

Cities and counties across the state are working to meet the state mandated waste diversion goals. To do this, governments across California are looking to build and expand recycling infrastructure projects. This webinar will focus on the CEQA guidelines these projects will need to comply with and the opportunities to reduce the environmental and GHG impacts of these facilities.

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Polling Question

- Which of the following best describes you?

CEQA Background

CEQA's Environmental Mandate

Section 21002.1(b):

- "Each public agency shall ***mitigate*** or ***avoid*** the ***significant effects on the environment*** of projects that it carries out or approves whenever it is feasible to do so."

General CEQA Process

CEQA Process in a Nutshell

- Is it a “Project”?
  - PRC § 21065, Guidelines § 15378
- Is it Exempt?
  - Statutory
  - Categorical
- Initial Study - is there evidence of a fair argument that significant effects may result?
  - No: Negative Declaration or Mitigated Neg. Dec.
  - Yes: Environmental Impact Report

Initial Study

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology /Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology / Water Quality
- Land Use / Planning
- Mineral Resources
- Noise
- Population / Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities / Service Systems
- Mandatory Findings of Significance

When is an impact ***significant***?

- Judgment call
  - Based on the setting and project circumstance
  - Based on information available to the agency
- Thresholds of Significance
- Other Environmental Laws

- Substantial evidence = facts, reasonable assumptions based on facts, expert opinions based on fact
  - Not speculation or unsupported opinion

Negative Declaration

- Initial Study demonstrates that the project will not cause a significant adverse impact
- Agency circulates proposed ND for public and agency review
- If no evidence of significant impact is submitted, the agency can adopt the project

- Mitigated Negative Declaration

Environmental Impact Report

- Initial Study finds evidence that project *may* result in significant effects
- Agency invites public comments on scope
- Draft EIR
  - In-depth study and determination regarding all potentially significant effects
  - Mitigation measures
  - Alternatives
- Final EIR
  - Responses to Comments

Project Approval After EIR

- Before approving a project, agency must
  - Certify the EIR
  - Make detailed findings on impacts
    - Mitigation measures are adopted that reduce impacts
    - Mitigation measures are infeasible
  - Make detailed findings on alternatives
  - If significant effects remain, adopt a statement of overriding considerations
    - Explain why project benefits outweigh the adverse impacts
  - Adopt a mitigation monitoring and reporting program

Programmatic Review

- Cover general, broad issues in a general analysis
  - Cover site-specific issues in a later, more specific analysis
  - Example: Program Environmental Impact Report (EIR) for Anaerobic Digestion Facilities
- Details in CEQA Guidelines § 15168

Supplemental Review

- Once CEQA is done, it is done, unless
  - The project changes and
  - there are new or worse impacts.
- If major changes, do a Subsequent EIR
- If minor change, do a Supplemental EIR
- If changes, but no new/worse impacts, consider addendum
- See CEQA Guidelines §§ 15162-15164

A Few More Details: Exemptions

- Categorical Exemptions
  - Existing facilities: 15301
  - Replacement or Reconstruction: 15302
- ***Beware***: exemptions have exceptions
  - Significant effects
  - Cumulative effects
  - Hazardous Waste Site
  - Others

A few more details: Special Rules

- Public Resources Code § 21151.1
  - EIR is required for certain projects
    - Incineration, but lots of exceptions
    - Hazardous waste
- Public Resources Code § 21151.4
  - Consultation with school districts for projects involving hazardous materials within ¼ mile
- Others??

It’s complicated: case example

- *CBD v. San Bernardino Co*. (2010) 185 Cal. App. 4th 866
  - Project: open air composting project
  - EIR invalidated
    - Failed to include a water supply assessment
    - Failed to consider a closed facility alternative

Thank you!

Christopher Calfee

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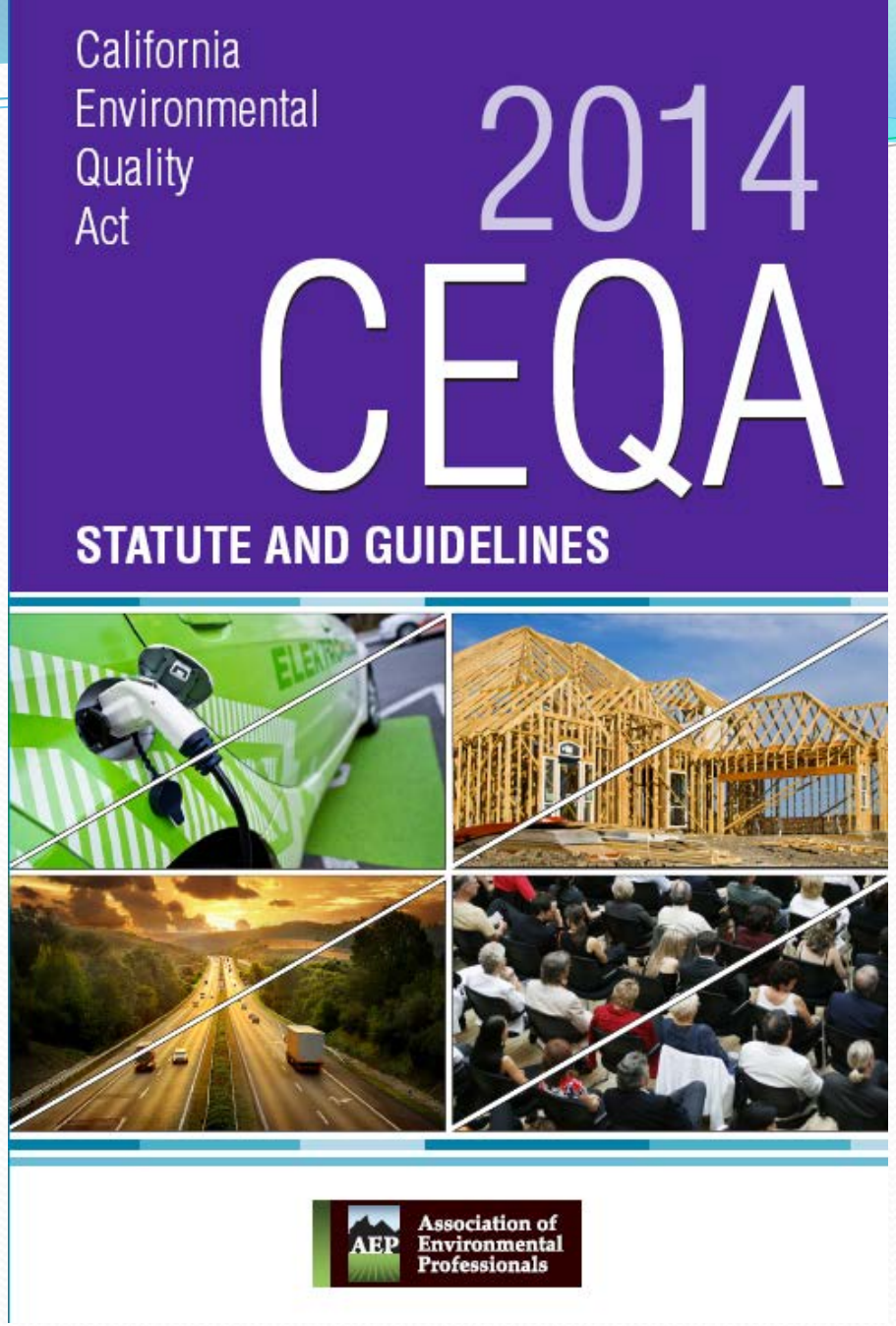
CEQA GUIDELINES: RECYCLING AND COMPOSTING PROJECTS

John Davis
Mojave Desert and Mountain Recycling Authority



http://resources.ca.gov/ceqa/docs/2014_CEQA_Statutes_and_Guidelines.pdf

Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions

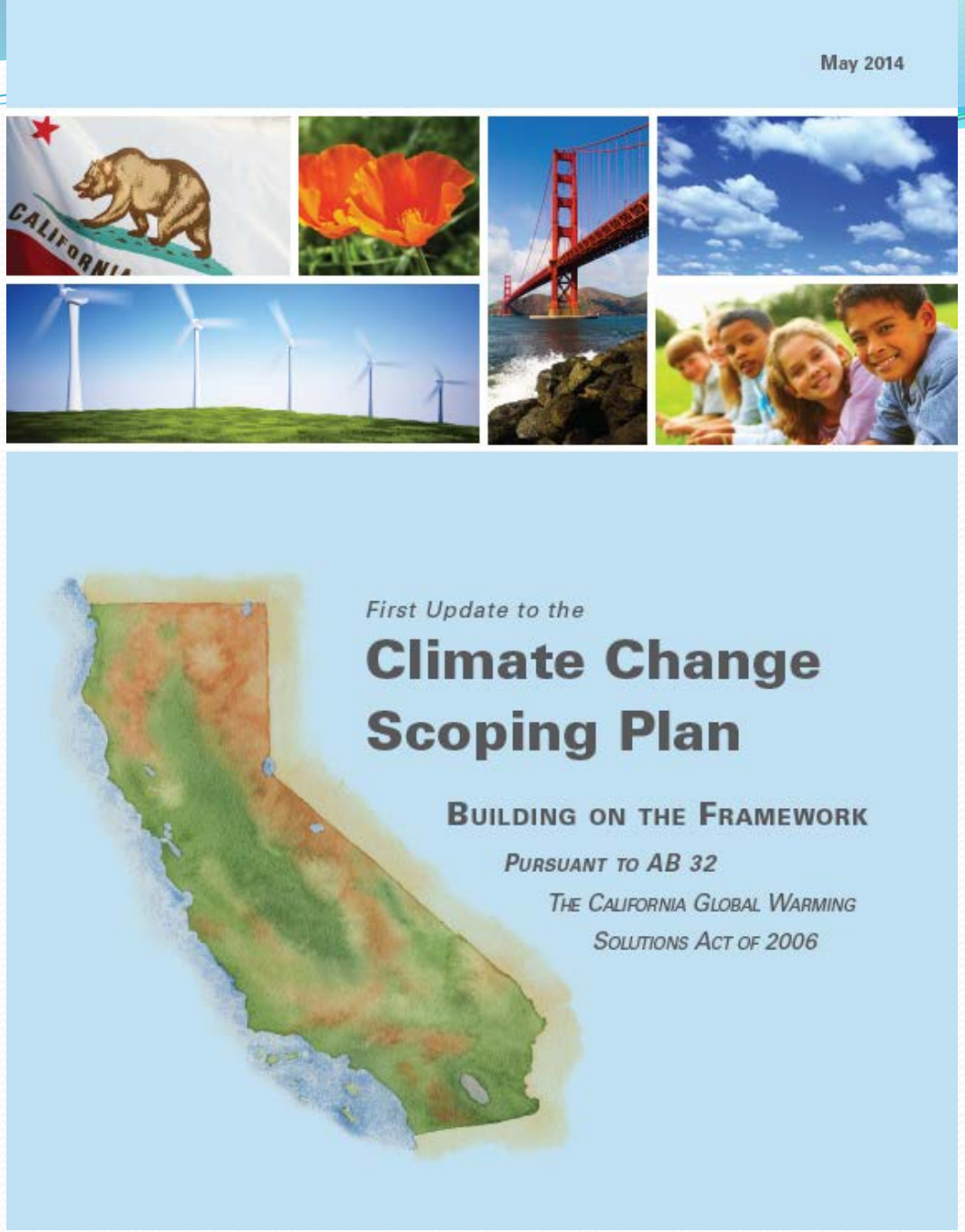
(a) A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to **describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project**

(1) **Use a model or methodology to quantify greenhouse gas emissions** resulting from a project, and which model or methodology to use.

Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions

(a)(3) The extent to which the project complies with regulations or requirements adopted to implement a **statewide, regional, or local plan** for the reduction or mitigation of greenhouse gas emissions

(b)(1) The extent to which the project may **increase or reduce greenhouse gas emissions** as compared to the existing environmental setting



http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm

Key Recommended Actions for the Waste Sector

- ARB and CalRecycle will lead the development of program(s) to eliminate disposal of organic materials at landfills. Options to be evaluated will include: legislation, direct regulation, and inclusion of landfills in the Cap-and-Trade Program. If legislation requiring businesses that generate organic waste to arrange for recycling services is not enacted in 2014, then ARB, in concert with CalRecycle, will initiate regulatory action(s) to prohibit/phase out landfilling of organic materials with the goal of requiring initial compliance actions in 2016.
- ARB and CalRecycle will identify and execute financing/funding/incentive mechanisms for in-State infrastructure development to support the Waste Management Sector goals. Mechanisms to be considered will include the Cap-and-Trade Investment Plan; loan, grant, and payment programs; LCFS pathways; CPUC proceedings (e.g. biogas from anaerobic digestion and Renewable Market Adjusting Tariff); and offset protocols.
- ARB will lead a process of identifying and recommending actions to address cross-California agency and federal permitting and siting challenges associated with composting and anaerobic digestion. As the first step, ARB convened a working group in 2013 made up of representatives from CalRecycle, SWRCB, and local air districts to identify challenges and potential solutions. A working group report will be released in mid-2014.
- ARB will explore and identify opportunities for additional methane control at new and existing landfills, and increase the utilization of captured methane for waste already in place as a fuel source for stationary and mobile applications. If determined appropriate, amend the Landfill Methane Regulation and/or move landfills into the Cap-and-Trade Program (2016/17).
- ARB and CalRecycle will develop new emission reduction factors to estimate GHG emission reduction potential for various recycling and remanufacturing strategies. To the extent data are available, these factors will include upstream and downstream emissions impacts.
- CalRecycle and the Department of General Services will need to take the lead in improving the State procurement of recycled-content materials through the State Agency Buy Recycled Campaign reform. Recommended improvements need to be identified by 2014, along with a plan for implementing the identified improvements.

Appendix C - Focus Group Working Papers

Waste Sector Working Paper

Introduction

Our vision for the Waste Management Sector for meeting GHG emissions and waste reductions goals out to 2050 is based on the principle that California must take ownership of the waste generated within the State. To carry out this vision, we must maximize recycling and diversion from landfills and build the necessary infrastructure to support a sustainable, low-carbon waste management system within California. We must also work with residents and producers to reduce the volume of waste generated. Enhanced collaboration with state and local agencies is necessary as California's waste- related issues are diverse and interconnected. Determining the best use of recycling alternatives, examining ways to increase the use of waste diversion alternatives and expanding their potential markets, obtaining funds and incentives for building the infrastructure, and evaluating the need for additional research to achieve GHG reductions and meet waste management goals are all actions that will be needed to reach our 2050 goals.

California must develop low-carbon, economically sustainable industries, technologies, and strategies that align with the state's long-term and integrated energy, waste, and environmental policy objectives. Waste has a critical role to play in enabling a sustainable, low-carbon future, in the context of each sector covered in the Scoping Plan. Waste sector-specific GHG and waste reduction targets and actions should align with the following overarching principles and priorities:

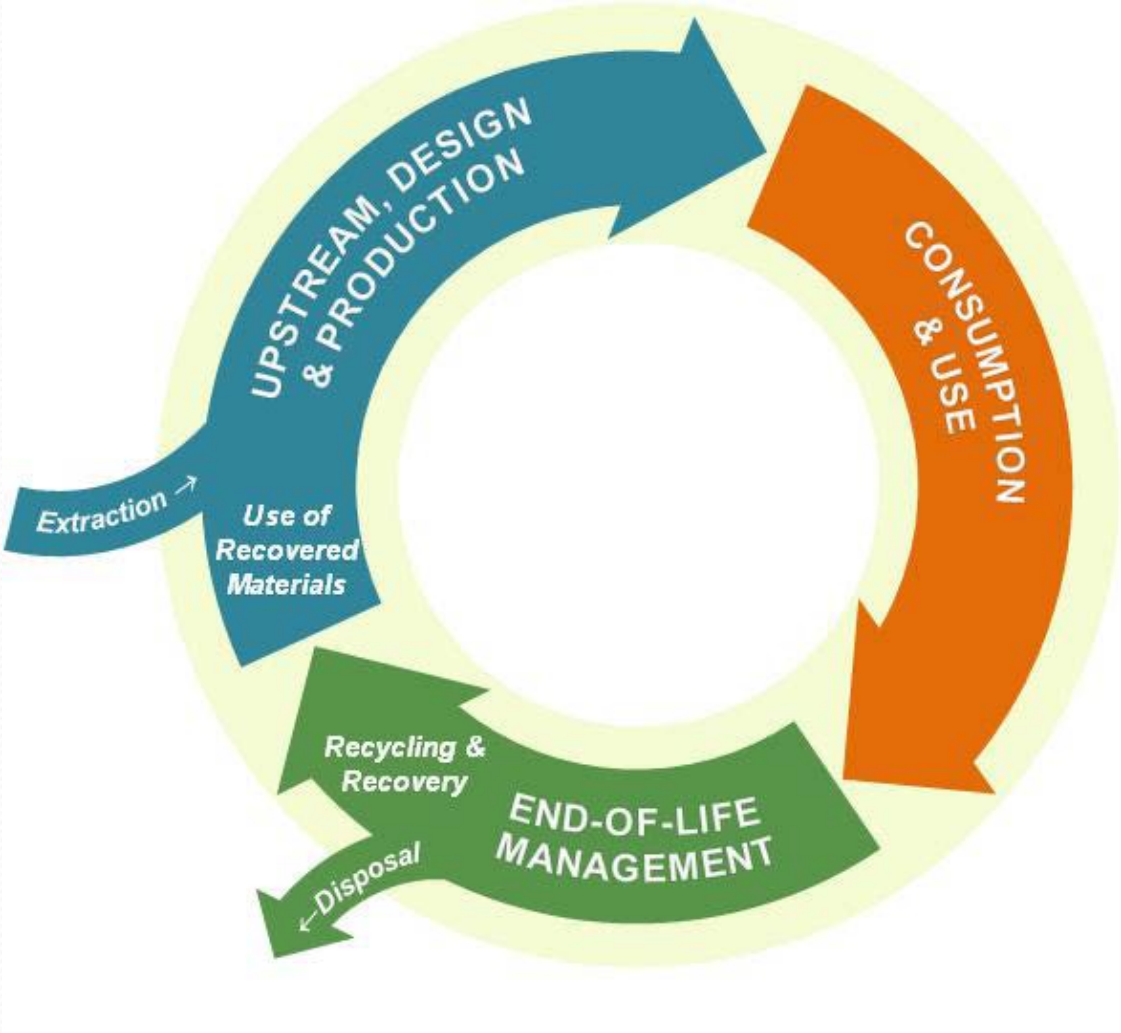
- Take Full Ownership of the Waste Generated in California
  - ✓ View waste as a resource
  - ✓ Develop a sustainable, low-carbon waste management system that processes collected waste within California
  - ✓ Eliminate, over time, the export of recyclable materials to other states or nations

- Maximize Recycling and Diversion from Landfills
  - ✓ Achieve continuous, measurable increases in the amount of materials recycled, reused, and remanufactured
  - ✓ Reduce the amount of organics and recyclable materials disposed of in landfills
  - ✓ Evaluate if regulator action is needed to phase out landfilling of organics

- Build the Infrastructure Needed to Support a Sustainable, Low-Carbon Waste Management System within California
  - ✓ Incentivize the most beneficial use of waste material based on California's economic, energy, waste, and environmental goals
  - ✓ Incentivize building new infrastructure within California for non-landfill alternatives

http://www.arb.ca.gov/cc/scopingplan/2013_update/waste.pdf

Life Cycle Analysis: Quantifying GHG Emissions



Calculating GHG Emissions

- T = tons
- EF = emission factor
- MTCO2E = Metric tons carbon dioxide equivalent

- T * EF = MTCO2E

METHOD FOR ESTIMATING
GREENHOUSE GAS EMISSION REDUCTIONS FROM RECYCLING

November 14, 2011

Planning and Technical Support Division

California Air Resources Board

California Environmental Protection Agency

http://www.arb.ca.gov/cc/protocols/localgov/pubs/recycling_method.pdf

Recycling Emission Reduction Factors (Table 11)

Material	Total Upstream Emission Reductions (a)	Remanufacture Transportation Emissions (b)	Forest Carbon Seq. (c)	Recycling Efficiency (d)	RERF (a-b+c) *d
Aluminum	14	0.07	0	0.93	12.9
Steel	1.7	0.16	0	0.98	1.5
Glass	0.2	0.02	0	0.88	0.2
HDPE	1.1	0.09	0	0.77	0.8
PET	2	0.15	0	0.77	1.4
Corrugated cardboard	1.3	0.1	4.2	0.93	5
Magazines/3rd class mail	0.1	0.1	0.5	0.67	0.3
Newspaper	1	0.1	2.9	0.89	3.4
Office paper	2.4	0.1	4.8	0.6	4.3
Telephone books	1.2	0.1	2.9	0.67	2.7
Dimensional lumber	N/A	N/A	N/A	N/A	0.21
Mixed Plastics	1.7	0.13	0	0.77	1.2

Distribution of Recycled Materials (Table 3): Transport by Truck, Rail, Ocean Vessel

Material	Remanufacturing Destination
Aluminum	99% Southeast, 1% Mexico, Europe, Brazil
Steel	90% Pacific Rim, 10% California
Glass	85 % California, 15% in Mexico, Texas, Colorado, Washington, Oklahoma
HDPE	46 % California, 36 % in China, 18 % Southeast
PET	77% China, 10 % Southeast, 14% California
Corrugated cardboard	36% China, 64% United States mix
Magazines/3rd class mail	36% China, 64% United States mix
Newspaper	36% China, 64% United States mix
Office paper	36% China, 64% United States mix
Phonebooks	36% China, 64% United States mix

METHOD FOR ESTIMATING GREENHOUSE GAS EMISSION REDUCTIONS FROM COMPOST FROM COMMERCIAL ORGANIC WASTE

November 14, 2011

Planning and Technical Support Division

California Air Resources Board

California Environmental Protection Agency

http://www.arb.ca.gov/cc/protocols/localgov/pubs/compost_method.pdf

Compost Emission Factors (Table 8)

Emissions	
Emission type	Emission (MTCO2E/ton of feedstock)
Transportation emissions (Te)	0.008
Process emissions (Pe)	0.008
Fugitive CH_4 emissions (Fe)	0.078
Fugitive N_2O emissions (Fe)	0.025
Total	0.119

Compost Emission Reduction Factors (Table 8)

Emission reductions			
Emission reduction type	Emission reduction (MTCO2E/ton of compost)	Conversion factor	Final Emission reduction (MTCO2E/ton of feedstock)
Increased Soil Carbon Storage (Csb)	N/A	N/A	0.26
Decreased Water Use (Wb)	0.04	0.5	0.02
Decreased Soil Erosion (Eb)	0.25	0.5	0.13
Decreased Fertilizer Use (Fb)	0.26	0.5	0.13
Decreased Herbicide Use (Hb)	0	0.5	0
		Total	0.54
		Overall	0.42

Compost Transportation (Table 1)

- Average inbound and outbound transport is 75.7 miles
- Emission factor is 101 g CO_2/ton-mile
- The resulting average transportation emissions for the collection of feedstock and delivery of compost to the end user are **0.008 MTCO_2E/ton of feedstock**

Project Specific Technology

- Compost Emission Factors are windrow
- Covered aerated composting and anaerobic digestion will have different factors
- All 5 CalRecycle GHG grants were covered aerated composting and AD projects
- Covered aerated systems and AD projects also can reduce odors and air pollutants
- Anaerobic digestion projects benefit from CalRecycle's Program EIR, including CEQA guidance http://www.calrecycle.ca.gov/SWFacilities/Compostables/AnaerobicDig/PropFnlPEIR.pdf

Avoided Methane Emissions

- CH_4 is a short-lived greenhouse gas
- Methane's Global Warming Potential is 21 over 100 years (used by ARB)
- IPCC calculates methane GWP as 28 to 34 (w/climate carbon feedback)
- Methane atmospheric life is 12.4 years
- Methane GWP is 86 over 20 years
- ARB regulates landfill methane separately
- WARM and ICLEI provide methane emission factors

Avoided Methane Emissions (ICLEI Table 3.3)

Material	Emissions Factors for Avoided Disposal		
	GHG emissions (reductions) from avoided landfilling, landfill with no gas collection	GHG emissions (reductions) from avoided landfilling, landfill with gas collection but no energy recovery	GHG emissions (reductions) from avoided landfilling, landfill with gas collection and energy recovery
Food Waste	-1.47	-0.37	-0.21
Yard Trimmings	-0.79	-0.20	-0.11
Grass	-0.72	-0.18	-0.10
Leaves	-0.56	-0.14	-0.08
Branches	-1.17	-0.29	-0.17

http://www.icleiusa.org/tools/ghg-protocol/recycling-and-composting-emissions-protocol

Mitigation Measures in EIR (Section 15126.4)

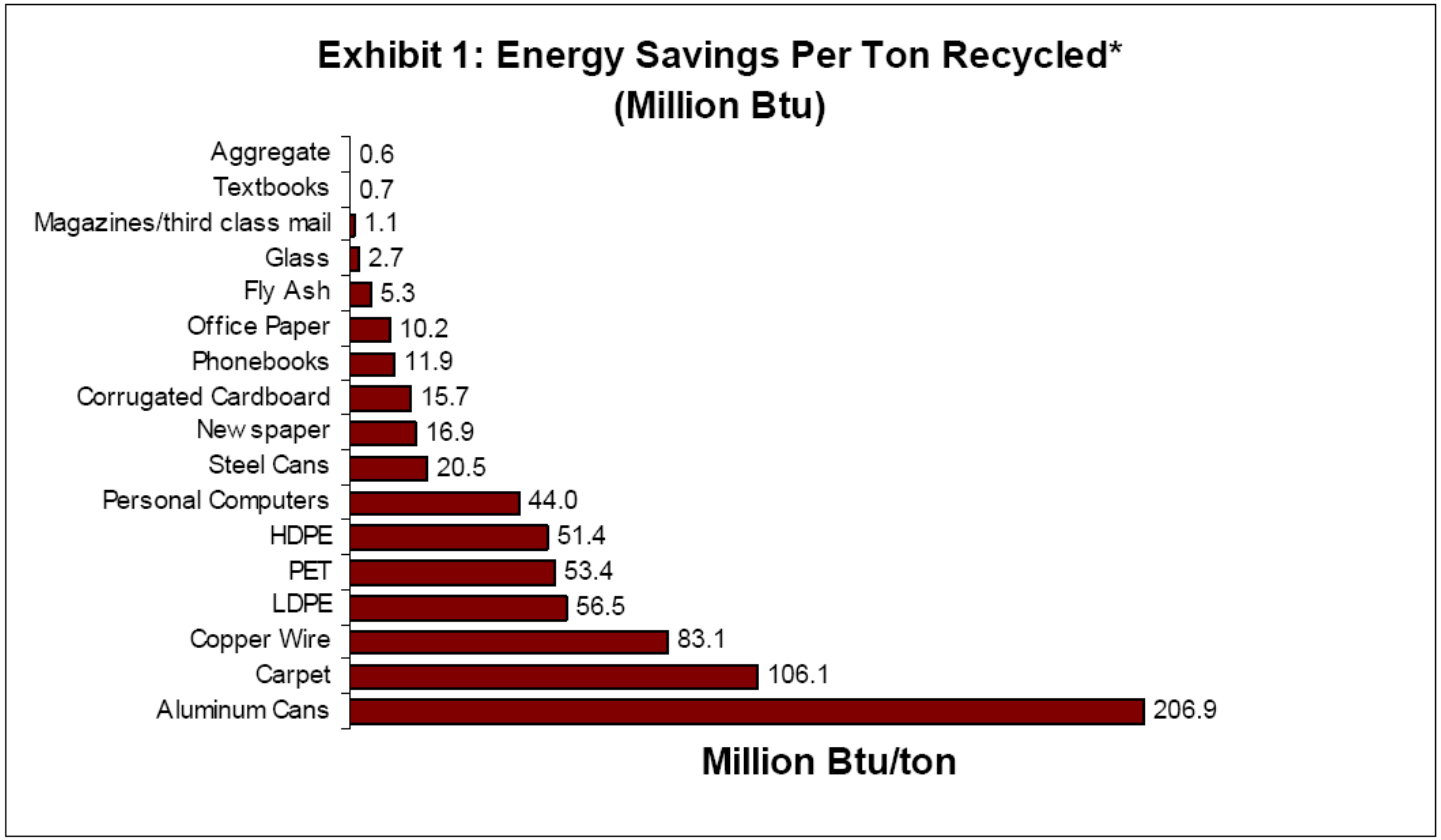
- (a)(1)(C) Energy conservation measures, as well as other appropriate mitigation measures, shall be discussed when relevant. Examples of energy conservation measures are provided in Appendix F.
- (c) Mitigation Measures Related to Greenhouse Gas Emissions.
  - (2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F
  - (4) Measures that sequester greenhouse gases

Appendix F: Energy Conservation

The California Environmental Quality Act requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy

D. Mitigation Measures may include:

5. **Energy conservation which could result from recycling efforts.**



* Assumes recycled materials would otherwise have been landfilled. Includes embedded energy.

http://epa.gov/climatechange/wycd/waste/downloads/Energy%20Savings.pdf

Contract

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QUESTIONS & ANSWERS

Thank You!

And thank you to CalRecycle for being our sponsor.

The webinar recording and PowerPoint slides will be available on ILG's website shortly.

If you have additional questions please contact Melissa at mkuehne@ca-ilg.org

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