

# **Agenda Item II**

## **BUSINESS MATTERS**



ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA  
DEL NORTE, EL DORADO, GLENN, IMPERIAL, INYO, LASSEN



MADERA, MARIPOSA, MODOC, MONO, NEVADA, PLUMAS,  
SIERRA, SISKIYOU, TEHAMA, TRINITY, TUOLUMNE

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY  
VICE CHAIR – MARY RAWSON, ALPINE COUNTY  
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)  
TAG CHAIR – KRISTINA MILLER, TEHAMA COUNTY  
TAG VICE CHAIR – JIM MCHARGUE, AMADOR COUNTY  
PROGRAM MANAGER – MARY PITTO

**Minutes of the Rural Counties'  
Environmental Services Joint Powers Authority  
Board of Directors Meeting  
1215 K Street, Suite 1650, Sacramento, CA**

**Thursday August 19, 2015**

**MEMBERS REPRESENTED**

Mary Rawson, Supervisor  
Steve Rodowick, Recycling Coordinator  
Yvonne Van Zee, Program Coordinator  
Jeffrey Crovitz, Public Works Director  
Mike Azevedo, Assistant Director  
Greg Stanton, Dep. Director Environmental Mgt  
William Brunet, Director of Public Works  
Scott Egan, Waste Management Superintendent  
Rick Benson, CAO  
Paula Wesch, Program Coordinator  
Ahmad Alkhayat, Deputy Public Works Director  
Greg Ollivier, Solid Waste Manager  
Tony Dublino, Solid Waste Manager  
Bob Elder, Program Manager  
Bob Perreault, Director of Public Works  
Arthur Boyd, Grant Recycling Coordinator  
Michael Kobseff, Supervisor  
Kristina Miller, Landfill Agency Manager  
Rachel Ross, Recycling Coordinator  
Karl Fisher, Supervisor  
Diane Rader, Deputy Director Solid Waste  
Belinda Barlow, Solid Waste Specialist

Alpine County  
Butte County  
Calaveras County  
Calaveras County  
Colusa County  
El Dorado County  
Imperial County  
Inyo County  
Inyo County  
Lassen County  
Madera County  
Mariposa County  
Mono County  
Nevada County  
Plumas County  
Siskiyou County  
Siskiyou County  
Tehama County  
Tehama County  
Trinity County  
Trinity County  
Tuolumne County

**STAFF IN ATTENDANCE:**

Mary Pitto, ESJPA Program Manager  
Paul Smith, Senior Legislative Advocate  
Staci Heaton, Regulatory Affairs Advocate  
Larry Sweetser, ESJPA Consultant  
Julie Lunn  
Terrance Rodgers  
Layne Frederikson

RCRC Governmental Affairs  
RCRC Governmental Affairs  
RCRC Governmental Affairs  
Sweetser and Associates, Inc.  
RCRC Staff  
RCRC Staff  
RCRC Staff

**GUEST SPEAKERS:**

Joe Rasmussen, CalRecycle  
Laura Warddrip, SWRCB  
Leslie Graves, SWRCB

Daria Kent, PaintCare  
Nadine Langley, SWRCB  
Christine Flowers, CPSC

**OTHERS IN ATTENDANCE:**

Terry Brennan, CalRecycle  
Willie Carpenter, CalRecycle  
Spencer Fine, CalRecycle  
Keir Fury, CalRecycle  
Watson Gin, CalRecycle

Barbara Heinsch, CalRecycle  
Susan Mueller, CalRecycle  
Jeff Watson, CalRecycle  
Kerry Wicker, CalRecycle

John Kennedy, Principal Consultant, California State Assembly Republican Caucus  
Jessica Diridoni, Shasta County  
John Heath, Shasta County

**MEMBERS NOT REPRESENTED**

Amador County, Del Norte County, Glenn County, Modoc County, Sierra County

**I. Call to Order, Determination of Quorum and Self Introductions**

Chair Supervisor Michael Kobseff, Siskiyou County called the meeting to order at 9:02 a.m. Self-introductions were made. A quorum was determined at that time.

**II. Business Matters**

Approval of Minutes May 21, 2015. Chair Supervisor Michael Kobseff, Siskiyou County called for the approval of the minutes from the May 21, 2015 Board of Directors Meeting.

The motion to approve the minutes was made by William Brunet, Imperial County and was seconded by Karl Fisher, Trinity County. The motion passed unanimously.

**III. Public Comment: None**

**IV. Presentations**

A. CalRecycle Revised Enforcement Policy and Jurisdictional Review- Presented by Joe Rasmussen, Supervisor Materials Management and Local Assistance Program.

Mr. Rasmussen provide an overview of CalRecycle's revised Enforcement Policy and Jurisdictional Review for determining a jurisdiction's compliance with their Integrated Waste Management Plans. The revised Policy adds specific provisions for Mandatory Commercial Recycling and Organics Management.

B. Butte County Mandatory Commercial Recycling Program Presented by Steve Rodowick, Recycling Manager, Butte County

Mr. Rodowick provided an overview of the mandatory commercial recycling program in Butte County. There is about a 75% participation rate. Mobile home parks are handled on a case-by-case basis. There was discussion on implementation issues with questions from the audience.



C. Report from CalRecycle - Joe Rasmussen, CalRecycle provided a handout on CalRecycle updates, which is available on the ESJPA website.

**V. Member County Concerns/Comments**

- A. Steve Rodowick announced that the next California Household Hazardous Waste Conference will be held in Sacramento in early November 2016
- B. Barbara Heinsch reminded counties to track debris disposal from the recent fires for reporting in their quarterly reports.
- C. Tony Dublino announced that their landfill WDR fees were going down
- D. Kristina Miller mentioned the new one pound propane exchange program
- E. Supervisor Kobseff announced that Siskiyou County was offering confidential paper destruction in conjunction with a tire disposal event. There is a small charge for this event of \$2-5 and the event is sponsored by a local credit union. x
- F. Jessica Diridoni indicated Shasta County received a Amnesty Tire Award. Shasta County will be issuing a RFP for household hazardous waste services.

**VI. Legislative Update**

Paul A. Smith, Senior Legislative Advocate, provided a brief update brief update on the 2015-16 Legislative Session of the following bills relating to solid waste.

AB 876 (McCarty) would require local jurisdictions to report an estimate of the total organics processing capacity that will be needed over a fifteen-year period. Mr. Smith mentions that AB 876 undermines certain provisions of last year's enactment of Assembly Bill 1826 which RCRC worked to have placed into the bill. The bill is currently in the Senate Appropriations Committee and has been ordered to third reading. RCRC/ESJPA has sent letters in opposition to this bill.

AB 901 (Gordon) strengthens the requirement of solid waste operators to provide data to CalRecycle. The bill is currently in the Senate Appropriations Committee and has been placed on the Suspense File. RCRC/ESJPA has sent letters in support of this bill.

AB 1045 (Irwin) addresses the diversion of organic waste from disposal by requiring CalRecycle to develop coordinated permitting and regulation of composting facilities while protecting the environment. The bill is currently in the Senate Appropriations Committee and has been placed on the Suspense File. RCRC/ESJPA has sent in a letter of support for the bill.

Assembly Bill 1063 (Williams), the "tipping fee" bill, has been pulled by the author due to last minute substantial opposition by CalChamber and other organizations. Both Paul Smith and Mary Pitto have been actively engaged in discussions on "tipping fees" and have made other stakeholders aware that if there is going to be an increase in the tipping fee, the State Water Board fee should be incorporated into the amount to avoid the current billing system being used by the State Water Board. RCRC/ESJPA has sent a letter in support of the bill.

Both CalRecycle and Administration have indicated this is still a top priority and expect to continue conversations the remainder of the year. They are planning currently to address the issue in the upcoming budget process.

**VII. Special Guest Speaker:** Message from CalRecycle's New Director - Scott Smithline, CalRecycle's new Executive Director, provided an update on CalRecycle activities and his priorities for the Department. The 75% report is expected to be released next week. Fee reform is a priority and CalRecycle is proposing administrative fee that goes beyond disposal. Fee reform may need to be included in the state budget process. Mr. Smithline also discussed AB 901 that would provide more enforcement options for the Disposal Reporting System.

## **VIII. Solid Waste/Regulatory Update**

### **A. CalRecycle**

- Beverage Container Recycling Program Reform - Mr. Sweetser reported that CalRecycle continues its fraud investigations. CalRecycle continues its quarterly workshops for recyclers. Members should check if their local recyclers have completed the training otherwise they would not be eligible for state payments.
- Compostable Materials - CalRecycle approved this regulatory package and sent it to OAL for final approval. Some provisions of the proposed regulations impose a physical contamination limit of 0.5%; land application limits on physical contamination, metals and application frequency and depth; allowing some vegetative food material in lower tier compost operations; excluding small projects; and allow POTWs to accept some organic materials.

### **B. Environmental Farming Act Science Advisory Panel**

- Governor's Healthy Soils Initiative - Mr. Sweetser reported that CDFA is leading this effort on creating and maintaining healthy soils. This effort ties together drought impacts, water usage, composting, and the new strategic storm water initiative.

### **C. State Water Resource Control Board (SWRCB)**

- Storm Water Industrial General Permit - Mr. Sweetser reminded everyone that the new permit is in effect and encouraged members to ask questions of our afternoon speaker Laurel Warddrip from the SWRCB.
- Compost Waste Discharge Requirements - Mr. Sweetser reported that the SWRCB approved the compost WDRs with minor changes including allowing self-hauled food and green materials into Tier I feedstocks.
- Water Quality Fees for Fiscal year 2015-16 - Mr. Sweetser reported that the 2015/2016 landfill WDR fees is proposed to decrease a 19% decrease from the previous period. The SWRCB is expected to approve these new rates in September.

### **D. Extended Producer Responsibility**

- CA Product Stewardship Council Update - Christine Flowers reported that CPSC has board seats available. AB 1159 and AB 1145 are still in play. San Francisco, Marin, and Sacramento are working on pharmaceutical ordinances. The Board of Pharmacy has published regulations on managing pharmaceuticals. CPSC is assisting Contra Costa County in placement of pharmaceutical bins at clinics, police department, and a Supervisor's office. CPSC is also assisting the refuel-your-fun program for refillable propane cylinders. Kamps propane is assisting with this effort. CPSC is working on four household hazardous waste grants.

- Carpet America Recovery Effort (CARE) Update - Lisa Mekis provided an update on the CARE program.
- PaintCare Update - Daria Kent provided an update on PaintCare's activities including the increased payments for reuse programs
- Mattress Recycling Council Update - Mr. Sweetser reported that CalRecycle is reviewing the Mattress Recycling Fee and Budget. Members should have been contacted by MRC representatives to discuss needs and implementation of this program

E. Grant Program Update - Mr. Sweetser reported that the ESJPA will be assisting with the Mariposa County Fair under the OPP. Trainings under the USDA grant continue with the remaining county hazardous waste trainings being scheduled, the Manager of Landfill Operations class will be held in Calaveras County on September 22<sup>nd</sup> through 24<sup>th</sup>.

F. Highlights of June/July Meetings - Mr. Sweetser reported that most items were covered in Joe Rasmussen's report. CalRecycle is proposing regulations on civil liabilities for e-waste reporting which could impose up to a \$25,000 per violation penalty for submittal of false documentation. This may impact jurisdiction's designated collector status. Members were interested in a presentation on this topic for the next meeting.

G. Other Regulatory Announcements/Issues of Interest.

- Institute of Local Government Resources
- CalRecycle Program News
- Cal EPA CUPA Newsletters
- DTSC E-Waste Updates

**IX. Agenda Suggestions, Member County Presentation Volunteer, Workshop Topics for Next ESJPA Board Meeting Scheduled Thursday, October 15, 2015 –Nevada County will present.**

**X. Articles of Interest**  
Mary Pitto directed Members to the Board packet.

**XI. Adjournment- 12:25 pm**

Respectfully submitted,  
Julie Lunn, Office Assistant RCRC



ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA  
DEL NORTE, EL DORADO, GLENN, IMPERIAL, INYO, LASSEN



MADERA, MARIPOSA, MODOC, MONO, NEVADA, PLUMAS,  
SIERRA, SISKIYOU, TEHAMA, TRINITY, TUOLUMNE

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY  
VICE CHAIR – MARY RAWSON, ALPINE COUNTY  
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)  
TAG CHAIR – KRISTINA MILLER, TEHAMA COUNTY  
TAG VICE CHAIR – JIM MCHARGUE, AMADOR COUNTY  
PROGRAM MANAGER – MARY PITTO

**Resolution #05-01**

**RESOLUTION TO AMEND THE JOINT EXERCISE OF POWERS AGREEMENT  
TO REFLECT THE ADDITION OF SHASTA COUNTY TO THE  
RURAL COUNTIES' ENVIRONMENTAL SERVICES  
JOINT POWERS AUTHORITY**

**WHEREAS**, the Board of Directors of the Rural Counties' Environmental Services Joint Powers Authority extended an invitation of membership to Shasta County; and,

**WHEREAS**, the Board of Supervisors of Shasta County adopted Resolution No. 2015-102 (dated September 1, 2015) authorizing membership in the Rural Counties' Environmental Services Joint Powers Authority; and,

**WHEREAS**, the Board of Directors of the Rural Counties' Environmental Services Joint Powers Authority acknowledges receipt of the subject notice on October 15, 2015; and,

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Directors of the Rural Counties' Environmental Services Joint Powers Authority that the Joint Exercise of Powers Agreement is hereby amended as of October 15, 2015 to reflect the addition of Shasta County to the membership in accordance with Section 4-c of the Agreement.

Signed: \_\_\_\_\_

Michael Kobseff, Chair  
Rural Counties' Environmental Services  
Joint Powers Authority

Date: \_\_\_\_\_

**RESOLUTION NO. 2015-102**

**A RESOLUTION OF THE BOARD OF SUPERVISORS  
OF THE COUNTY OF SHASTA  
AUTHORIZING TO JOIN THE RURAL COUNTIES'  
ENVIRONMENTAL SERVICES JOINT POWERS AUTHORITY (ESJPA)  
AND APPROVING THE JOINT EXERCISE OF POWERS AGREEMENT  
BETWEEN THE COUNTY OF SHASTA AND ESJPA**

**WHEREAS**, the Rural Counties' Environmental Services Joint Powers Authority, hereinafter referred to as the "ESJPA", is a local government entity established and operated in accordance with the attached Joint Exercise of Powers Agreement (as revised December 4, 2004), hereinafter referred to as the "Agreement"; and

**WHEREAS**, the ESJPA provides program support and advocacy services, as described in the Agreement, on behalf of its member counties for environmental and regulatory issues related to the planning, management and operation of solid waste programs; and

**WHEREAS**, twenty-two rural California counties are currently members of the ESJPA; and

**WHEREAS**, the Agreement establishes procedures for the addition of new member counties to the ESJPA; and

**WHEREAS**, the County of Shasta wishes to become a member of the ESJPA and the County is eligible for membership based on the Agreement.

**NOW, THEREFORE BE IT RESOLVED**, that the Board of Supervisors hereby adopts the attached Joint Exercise of Powers Agreement (as revised December 4, 2004) and agrees to abide by the provisions therein.

**NOW, THEREFORE BE IT FURTHER RESOLVED**, that Supervisor Les Baugh is hereby appointed as Shasta County's authorized Delegate to the ESJPA Board of Directors and that Shasta County's Public Works Director, or his/her designee, shall serve as alternate Delegates and, in the absence of the Delegate, may exercise all the rights and privileges of the Delegate as described in the Agreement.

**DULY PASSED AND ADOPTED** this 1st day of September, 2015 by the Board of Supervisors of the County of Shasta by the following vote:

**AYES:** Supervisors Giacomini, Schappell, Baugh, Kehoe and Moty  
**NOES:** None  
**ABSENT:** None  
**ABSTAIN:** None  
**RECUSE:** None



**LEONARD MOTY, CHAIRMAN**  
Board of Supervisors  
County of Shasta  
State of California

**ATTEST:**

**LAWRENCE G. LEES**  
Clerk of the Board of Supervisors

By:   
Deputy

**THIS INSTRUMENT IS A CORRECT COPY  
OF THE ORIGINAL ON FILE IN THIS OFFICE**

**ATTEST SEP - 1 2015**

**CLERK OF THE BOARD**  
Supervisors of the County of Shasta, State of California  
BY: 

ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA  
DEL NORTE, EL DORADO, GLENN, IMPERIAL, INYO, LASSEN



MADERA, MARIPOSA, MODOC, MONO, NEVADA, PLUMAS,  
SIERRA, SISKIYOU, TEHAMA, TRINITY, TUOLUMNE

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY  
VICE CHAIR – MARY RAWSON, ALPINE COUNTY  
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)  
TAG CHAIR – KRISTINA MILLER, TEHAMA COUNTY  
TAG VICE CHAIR – JIM MCHARGUE, AMADOR COUNTY  
PROGRAM MANAGER – MARY PITTO

## MEMORANDUM

**To:** ESJPA Board of Directors  
**From:** Mary Pitto, Program Manager  
**Date:** October 6, 2015  
**Re:** ESJPA Proposed Meeting Calendar – CY 2016

The proposed ESJPA meeting schedule for the 2016 calendar year is shown on the following page and is presented for your consideration and adoption. Consistent with past years, the proposed meeting schedule includes five meeting dates commencing in March 2016.

We attempt to coordinate the ESJPA meeting being held the day after the RCRC Board meetings to the greatest extent possible to minimize the number of vehicle miles travelled by the ESJPA Chair and any other Supervisors that would like to attend our meetings. In doing so, this year, the meeting schedule coincides with four of RCRC Board meeting dates, in March, June, August, and December. We are proposing one ESJPA meeting in a month without an RCRC Board meeting, which is in October. Typically, the ESJPA meetings have been held the third Thursday of the month, with the exception of June being the fourth Thursday and December being the second Thursday.

ESJPA will begin its meetings at 9:00 a.m. and end by 3:00 p.m. Should a change to the meeting time occur, notifications will be sent out prior to the meeting date.

**Recommendation:**

Consistent with the requirements of Section 8 of the Joint Exercise of Powers Agreement, amended and restated December 16, 2004, it is recommended that the ESJPA Board adopt the 2016 Board meeting schedule as shown on the attached.

## ESJPA BOARD OF DIRECTORS 2016 MEETING CALENDAR

Thursday, March 17 <sup>th</sup>	RCRC Conference Room
Thursday, June 23 <sup>rd</sup>	RCRC Conference Room
Thursday, August 18 <sup>th</sup>	RCRC Conference Room
Thursday, October 20 <sup>th</sup>	RCRC Conference Room
Thursday, December 8 <sup>th</sup>	RCRC Conference Room

**\*\* Note:** Meeting times are anticipated to be held from 9:00 a.m. to 3:00 p.m. Lunch is provided.



# **Agenda Item IV**

## **PRESENTATIONS**



# EMERGENCY

(See instructions on reverse)

For use by Secretary of State only

STD. 400 (REV. 01-2013)

NOTICE FILE NUMBER <b>Z-</b>	REGULATORY ACTION NUMBER	EMERGENCY NUMBER <b>2015-0925-02E</b>
For use by Office of Administrative Law (OAL) only		
<p><b>2015 SEP 25 P 3 10</b></p> <p>OFFICE OF ADMINISTRATIVE LAW</p>		
NOTICE		REGULATIONS
AGENCY WITH RULEMAKING AUTHORITY Department of Resources Recycling and Recovery (CalRecycle)		AGENCY FILE NUMBER (if any)

### A. PUBLICATION OF NOTICE (Complete for publication in Notice Register)

1. SUBJECT OF NOTICE		TITLE(S)	FIRST SECTION AFFECTED	2. REQUESTED PUBLICATION DATE
3. NOTICE TYPE <input type="checkbox"/> Notice is Proposed Regulatory Action <input type="checkbox"/> Other	4. AGENCY CONTACT PERSON		TELEPHONE NUMBER	FAX NUMBER (Optional)
<b>OAL USE ONLY</b> <input type="checkbox"/> Approved as Submitted <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Disapproved/Withdrawn	NOTICE REGISTER NUMBER		PUBLICATION DATE	

### B. SUBMISSION OF REGULATIONS (Complete when submitting regulations)

1a. SUBJECT OF REGULATION(S) Administrative Civil Penalties	1b. ALL PREVIOUS RELATED OAL REGULATORY ACTION NUMBER(S)
--	--

2. SPECIFY CALIFORNIA CODE OF REGULATIONS TITLE(S) AND SECTION(S) (including title 26, if topics related)	
SECTION(S) AFFECTED (List all section number(s) individually. Attach additional sheet if needed.)	ADOPT Title 14, Division 7, Chapter 8.2: Sections 18660.44, 18660.45, 18660.46
	AMEND Title 14, Division 7, Chapter 8.2, Section 18660.7
TITLE(S) <b>14</b>	REPEAL

3. TYPE OF FILING			
<input type="checkbox"/> Regular Rulemaking (Gov. Code § 11346)	<input type="checkbox"/> Certificate of Compliance: The agency officer named below certifies that this agency complied with the provisions of Gov. Code §§ 11346.2-11347.3 either before the emergency regulation was adopted or within the time period required by statute.	<input type="checkbox"/> Emergency Readopt (Gov. Code, § 11346.1(h))	<input type="checkbox"/> Changes Without Regulatory Effect (Cal. Code Regs., title 1, § 100)
<input type="checkbox"/> Resubmittal of disapproved or withdrawn nonemergency filing (Gov. Code §§ 11349.3, 11349.4)	<input type="checkbox"/> Resubmittal of disapproved or withdrawn emergency filing (Gov. Code, § 11346.1)	<input type="checkbox"/> File & Print	<input type="checkbox"/> Print Only
<input checked="" type="checkbox"/> Emergency (Gov. Code, § 11346.1(b))		<input type="checkbox"/> Other (Specify)	

4. ALL BEGINNING AND ENDING DATES OF AVAILABILITY OF MODIFIED REGULATIONS AND/OR MATERIAL ADDED TO THE RULEMAKING FILE (Cal. Code Regs. title 1, § 44 and Gov. Code § 11347.1)

5. EFFECTIVE DATE OF CHANGES (Gov. Code, §§ 11343.4, 11346.1(d); Cal. Code Regs., title 1, § 100)			
<input type="checkbox"/> Effective January 1, April 1, July 1, or October 1 (Gov. Code § 11343.4(a))	<input checked="" type="checkbox"/> Effective on filing with Secretary of State	<input type="checkbox"/> § 100 Changes Without Regulatory Effect	<input type="checkbox"/> Effective other (Specify)

6. CHECK IF THESE REGULATIONS REQUIRE NOTICE TO, OR REVIEW, CONSULTATION, APPROVAL OR CONCURRENCE BY, ANOTHER AGENCY OR ENTITY			
<input type="checkbox"/> Department of Finance (Form STD. 399) (SAM 56660)	<input type="checkbox"/> Fair Political Practices Commission	<input type="checkbox"/> State Fire Marshal	
<input type="checkbox"/> Other (Specify)			

7. CONTACT PERSON Elliot Block, Chief Counsel		TELEPHONE NUMBER 916-341-6080	FAX NUMBER (Optional)	E-MAIL ADDRESS (Optional) Elliot.Block@CalRecycle.ca.gov
--	--	----------------------------------	-----------------------	---

8. I certify that the attached copy of the regulation(s) is a true and correct copy of the regulation(s) identified on this form, that the information specified on this form is true and correct, and that I am the head of the agency taking this action, or a designee of the head of the agency, and am authorized to make this certification.

SIGNATURE OF AGENCY HEAD OR DESIGNEE <i>Elliot Block</i>	DATE 8/21/15
TYPED NAME AND TITLE OF SIGNATORY Elliot Block, Chief Counsel	

For use by Office of Administrative Law (OAL) only

**PROPOSED - California Code of Regulations**  
**Title 14. Natural Resources**  
**Division 7. Department of Resources Recycling and Recovery**  
**Chapter 8.2. Electronic Waste Recovery and Recycling**

For reference, this document shows proposed regulatory revisions and adoptions via underline:

**Article 2.0. Electronic Waste Payment System – Applicability and Limitations, Document Submittals, Records, Audits and Net Cost Report**

**§ 18660.7. Document Submittals.**

- (a) A collector, a recycler, or a manufacturer shall prepare and submit applications, registrations, claims and/or reports required pursuant to this Chapter in the manner designated by CalRecycle.
- (b) CalRecycle shall only accept collector, recycler or dual entity applications, claims and reports containing all the required information and bearing an original signature of the primary applicant, or a person with signature authority as designated by the primary applicant pursuant to Section 18660.11 of this Chapter.
- (c) CalRecycle shall only accept manufacturer registrations, claims and reports containing all the required information and bearing an original signature of the primary registrant, or a person with signature authority as designated by the primary registrant pursuant to Section 18660.35 of this Chapter.
- (d) CalRecycle shall provide forms upon request that may be used to meet the requirements for the applications, registrations, and payment claims specified in this Chapter.
- (e) A collector, a recycler, or manufacturer shall ensure that applications, registrations, claims, reports and all applicable supporting documentation are accurate, complete, and typed or legibly handwritten in English using permanent ink. A collector or a recycler may void errors only by using a single line through the error. A collector or a recycler shall not use correction fluid, correction tape or erasures for correcting errors on any document required by or submitted to CalRecycle.
- (f) Any person, including but not limited to a handler, who provides documentation or information to an approved collector or an approved recycler that may be used by the approved collector or approved recycler pursuant to this Chapter shall not make a false statement or representation in the information or documentation provided.

Note: Authority cited: Sections 40502, 42475(b) and 42475.2, Public Resources Code.  
Reference: Sections 42476, 42477, 42478 and 42479, Public Resources Code.

**Article 6. Administrative Civil Penalties**

**§ 18660.44. Procedure for Imposing Civil Liabilities for False Statements or Representations.**

- (a) Administrative civil penalties authorized by Public Resources Code Section 42474(d) shall be assessed in accordance with the procedures set forth in this Section.
- (b) The penalties shall be assessed as follows:
  - (1) A "Minor" violation includes first-time violations where the gravity of the violation is severe. The penalties for this type of violation would be no less than five hundred dollars (\$500) and no more than four thousand dollars (\$4,000).
  - (2) A "Moderate" violation includes subsequent or multiple violations. The penalties for this type of violation would be no less than four thousand dollars (\$4,000) and no more than fifteen thousand dollars (\$15,000).

PROPOSED - California Code of Regulations  
Title 14. Natural Resources  
Division 7. Department of Resources Recycling and Recovery  
Chapter 8.2. Electronic Waste Recovery and Recycling

- (3) A "Major" violation includes violations that indicate a pattern and practice of noncompliance, or intentional violations. The penalties for this type of violation would be no less than fifteen thousand dollars (\$15,000) and no more than twenty-five thousand dollars (\$25,000).
- (c) CalRecycle may consider any or all of the following when imposing an administrative civil penalty:
- (1) The nature, circumstances, extent, and/or gravity of the violation;
  - (2) The value of the actual or potential economic benefit to the violator associated with the violation;
  - (3) The amount of actual or potential harm to CalRecycle, financial or otherwise;
  - (4) Any prior history of noncompliance with this Chapter, including but not limited to any prior violations of a similar nature;
  - (5) Truthful and forthright cooperation during any relevant investigation, including but not limited to any measures taken by the violator to remedy the current violation or prevent future violations;
  - (6) The violator's ability to pay the proposed penalty;
  - (7) The deterrent effect that the imposition of the proposed penalty would have on the community as a whole and the violator; and
  - (8) Any other matters that justice may require.
- (d) In any case in which it is determined that more than one person or entity is responsible and liable for a violation, each such person may be held jointly and severally liable for an administrative civil penalty.
- (e) Prior to the imposition of penalties, CalRecycle may issue a prior written notice of violation alleging with specificity:
- (1) A description of the violation or violations;
  - (2) The proposed penalty amount, if any;
  - (3) The facts considered in determining the violation and penalty amount;
  - (4) A list of corrective actions to be taken by the violator; and
  - (5) An acknowledgement of receipt to be executed by the violator.
- (f) CalRecycle may issue an accusation, as defined in Government Code Section 11503, seeking an administrative penalty or penalties pursuant to this Section in lieu of issuing a prior written notice of violation. The accusation and all accompanying documents may be served by personal service or registered mail.
- (g) Within fifteen (15) days after service upon the respondent of the accusation seeking any administrative civil penalty, respondent may request a hearing by filing a Notice of Defense pursuant to Government Code Sections 11505 and 11506. The request for hearing may be made by delivering or mailing the Notice of Defense to CalRecycle. Failure to file a Notice of Defense within fifteen (15) days of service of the accusation shall constitute a waiver of the respondent's right to a hearing and CalRecycle may proceed upon the accusation without a hearing.
- (h) CalRecycle shall provide a hearing before the director or his or her designee, who shall act as hearing officer. At any time during the proceeding, before a decision is issued, CalRecycle and the respondent(s) may engage in settlement of the matter.
- (i) The hearing officer shall consider the notice of violation, the accusation, the Notice of Defense, and all other relevant evidence presented by CalRecycle and the respondent. The hearing officer shall specify relevant procedures to be conducted during the proceeding, which include but are not limited to, informing the parties as to whether the hearing officer will consider witness testimony.

**PROPOSED - California Code of Regulations**  
**Title 14. Natural Resources**  
**Division 7. Department of Resources Recycling and Recovery**  
**Chapter 8.2. Electronic Waste Recovery and Recycling**

- and whether there shall be written and/or oral arguments. The hearing officer shall issue a written decision stating the factual and legal basis for the decision within thirty (30) days of the hearing. If the hearing officer determines that any penalties are owed, the hearing officer shall include in the written decision the date payment of the assessed penalties shall be due and paid.
- (i) The respondent's failure to comply with the hearing officer's written decision may be grounds for suspension or revocation of their status as an approved collector and/or approved recycler.
  - (k) Except as otherwise specified herein, the hearing shall be governed by the informal administrative hearing procedures in Government Code Section 11400 et seq. The hearing shall take place in Sacramento, California unless a location is otherwise specified by the hearing officer. If respondent wishes to request an alternate location, the respondent must make that request in the Notice of Defense and provide a justification of undue burden.
  - (l) Penalties assessed in a hearing officer's decision may be in addition to any adjustments made pursuant to Section 18660.30 and may be offset by CalRecycle against any other amounts that are otherwise due to the respondent(s) for payment claims. In the event of settlement, the parties may agree to offset provisions in the settlement agreement.

Note: Authority cited: Sections 40502, 42475(b) and 42475.2, Public Resources Code.  
Reference: Sections 42476, 42477, 42478 and 42479, Public Resources Code.

**§ 18660.45. Procedure for Imposing Civil Liabilities for Failure to Pay a Covered Electronic Waste Recycling Fee.**

- (a) The administrative procedure set forth in Section 18660.44(c)-(i) shall apply to any civil liability administratively imposed pursuant to Public Resources Code Section 42474(a).
- (b) The hearing shall be governed by the informal administrative hearing procedures in Government Code Section 11400 et seq.

Note: Authority cited: Sections 40502, 42475(b) and 42475.2, Public Resources Code.  
Reference: Sections 42476, 42477, 42478 and 42479, Public Resources Code.

**§ 18660.46. Procedure for Imposing Civil Liabilities for Failure to Comply with Requirements for Manufacturers.**

- (a) The administrative procedure set forth in Section 18660.44(b)-(i) shall apply to any civil liability administratively imposed pursuant to Public Resources Code Section 42474(c).
- (b) The hearing shall be governed by the informal administrative hearing procedures in Government Code Section 11400 et seq.

Note: Authority cited: Sections 40502, 42475(b) and 42475.2, Public Resources Code.  
Reference: Sections 42476, 42477, 42478 and 42479, Public Resources Code.

## INFORMATIVE DIGEST/FINDING OF EMERGENCY

### **AUTHORITY AND REFERENCE**

The Department of Resources Recycling and Recovery (CalRecycle) adopts these emergency regulations to remain in effect for two years under the authority granted by the Public Resources Code (PRC) Sections 42474 and 42475.2, and makes reference to specific statutory provisions in Government Code Sections 11445.10, 11445.20, 11503, 11505, and 11506.

The Request for Approval executed August 19, 2015 is included as Attachment 1.

### **INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW**

#### **Existing Laws and Regulations**

The Electronic Waste Recycling Act of 2003 (PRC § 42460, *et seq.*) established a funding mechanism to provide for convenient collection opportunities and waste processing capabilities for certain electronic products discarded in California. Covered electronic devices (CED) include video display devices with screen sizes greater than four inches that have been determined by the Department of Toxic Substances Control (DTSC) to be hazardous when discarded. When CED is discarded, it becomes Covered Electronic Waste (CEW). Approved collectors and approved recyclers may recover, process/recycle, and claim for payment CEW that is documented as having been discarded by a California source and managed compliantly with applicable law.

The program is funded through a fee paid by consumers of CEDs at the time of retail purchase. Collected fees are remitted by retailers to the State Board of Equalization and deposited into the Electronic Waste Recycling and Recovery Account. Subsequently, payments are made to approved CEW collectors and approved recyclers to offset the cost of appropriate waste recovery, processing and recycling activities. CalRecycle administers the CEW payment system. In the ten years since the CEW program began operation, more than 1.8 billion pounds of CEW have been collected, processed, and claimed, representing over 770 million dollars in public funds.

Over the past few years, CalRecycle staff has concentrated on adjustments to payment claims as one of the tools to safeguard compliance with the program's rules and regulations. The average annual disallowance rate has been 5%. Through CalRecycle staff's own payment claim analysis and review of associated documentation, staff has observed that false documentation continues to be submitted in claims for payment filed with the Department. The use of false documentation or information undermines the integrity of the program. Given the need to maintain the integrity of the CEW program and foster compliance, CalRecycle staff is proposing to implement civil liabilities which would offer CalRecycle an additional tool to use in this respect.

CalRecycle was granted statutory authority to administratively impose civil penalties in 2012, as codified in PRC section 42474 (d): "Civil liabilities (penalties) in an amount of up to twenty-five thousand dollars (\$25,000) per violation may be administratively imposed by the Department of Resource Recycling and Recovery against a person, including an authorized collector or covered electronic waste recycler, that makes a false statement or representation in any document filed, submitted, maintained, or used for purposes of compliance" with the Electronic Waste Recycling Act and associated regulations, including those related to the CEW program.

Additionally, PRC sections 42474 (a) and (c) authorize CalRecycle to impose liabilities for the failure to pay the covered electronic waste recycling fee, as well as for manufacturer noncompliance with applicable rules and regulations.

The development of the civil liability rules was approached in two stages: 1) research and evaluation of other similar programs that impose administrative civil penalties to understand how they are authorized, structured, and administered; and 2) drafting and revising the proposed regulations based on feedback from staff and public comments.

CalRecycle staff analyzed various statutes and regulations administered by other programs and agencies such as CalRecycle's Beverage Container, Tire, and Solid Waste Facility Permitting programs, as well as State Water Resources Control Board programs and DTSC programs to evaluate different aspects of a civil penalty approach: scope (e.g., false statement, failure to comply with regulatory requirements and release of hazardous substances), classification of violations, determination of penalty amount, procedures to impose the penalties and timeline. The main challenge was to integrate and adapt the various concepts researched to the needs and specificities of the CEW program and its participants and affiliates. For example, in assessing penalties, the matrix approach used by several programs, which is defined by the extent of deviation and potential harm, was modified to a categorical approach based on frequency of violations, severity, and intent. Also, the concept of "notice of violation" was integrated as a warning mechanism that may be issued prior to the imposition of penalties.

CalRecycle staff conducted a public workshop on the proposed regulations on July 14, 2015. In response to comments received by the stakeholders, CalRecycle revised the regulations.

### **Policy Statement Overview**

The objective of the proposed regulations is to implement a process that allows CalRecycle the ability to exercise its authority and impose civil liabilities against any person, including but not limited to an authorized collector of covered electronic waste recycler, who makes false statements or representations in any document filed, submitted, maintained or used for purposes of compliance with the E-Waste Program.

### **Proposed Regulations**

Please see **Attachment 2**.

### **Federal Regulation or Statute**

CalRecycle has determined that these regulations do not have any significant differences from federal law.

### **FISCAL IMPACT ESTIMATES**

#### **Mandates on Local Agencies and School Districts**

CalRecycle has determined that adoption of these regulations will create no new local mandates.



**Estimate of Potential Cost or Savings to Local Agencies Subject to Reimbursement**

CalRecycle has determined that adoption of these regulations will not impose a local mandate or result in costs subject to reimbursement pursuant to Government Code Section 17500 *et seq.*, or other non-discretionary costs or savings to local agencies or school districts.

**Cost or Savings to Any State Agency**

CalRecycle has determined that adoption of these regulations will have no net cost or savings to any state agency.

**Cost or Savings in Federal Funding to the State**

CalRecycle has determined that adoption of these regulations will have no impact on costs or savings in federal funding to the State.

**EVALUATION OF COMPATIBILITY WITH EXISTING STATE REGULATIONS**

Pursuant to Government Code Section 11346.5(a)(3)(D), CalRecycle performed a search of the existing state regulations and finds that this emergency rulemaking is not inconsistent or incompatible with existing state regulations.

**DOCUMENTS RELIED UPON**

- Request For Approval executed August 19, 2015



# GREENROADS



## Rubberized Pavement Grants

Is your jurisdiction interested in receiving?

- A \$250,000 grant reimbursable at \$10 per ton of rubberized hot-mix (field blended or terminal blended), even if you would otherwise be eligible for a lesser amount
- Priority grant funding consideration
- Lower rubberized paving material costs
- No-cost engineering and administrative support services

**Proposed Changes:** CalRecycle has proposed changes to the Rubberized Pavement Grant Program that may affect your jurisdiction. The changes will be presented at the September 15, 2015, CalRecycle monthly meeting and the meeting agenda will be posted here: <http://www.calrecycle.ca.gov/PublicMeeting>. There are two main changes:

First, applicants will be allowed to apply for and receive grants in consecutive fiscal years. Previously applicants could not receive grants in consecutive years. Second, there are changes affecting regional applications. A regional application is one in which two or more eligible applicants (primarily local governments and local government agencies) join together to submit a regional grant application.

Specific recommended changes to support regional applications are:

- Allow regional applications to be reimbursed at program maximums (100 percent of the \$10 per ton base rate (\$10 per ton) for RAC hot-mix and \$0.50 per square yard of rubberized chip seal) regardless of the reimbursement rate that a lead or participating jurisdiction would otherwise receive
- Provide a \$400,000 maximum grant for regional applications with lead or participating jurisdictions limited to not more than \$250,000 of the grant award. If oversubscribed (more requests than available funding), provide priority funding consideration for regional applications over all other applicants
- Participation in a regional application will not count as a past grant received when considering future grant awards

**Benefits:** The proposed changes will allow regional application participants to benefit by:

- Creating a larger economy of scale for all participants
- Opening the rubberized pavement market to smaller agencies with smaller quantities
- Allowing agencies whom have termed-out or are at a lower grant reimbursement rate to participate in the Rubberized Pavement Grant Program and/or at a higher rate and share their experience with partnering agencies

- Receiving no-cost engineering and administrative support services

**Application Timeline:** Implementing cooperative agreements between local governments requires coordination. It will take time to network partners, create projects, and execute cooperative agreements or MOU's for the grant submittal. To facilitate regional applications, CalRecycle has proposed the following timeline:

- Applications available in late September
- Applications due in early December
- Secondary due date in late January

The secondary due date is when participants can provide: a Letter of Authorization, MOU (or similar evidence of governing body approval); or a resolution approving the regional application.

This pilot regional approach will be reviewed and revised, as necessary. It is possible that there may be significant changes if program funding is reduced (anticipated in FY 2019-20). Technical assistance (for both the administrative and engineering aspects) will be provided by the CalRecycle Contractor at no cost.

**Feedback:** We would like to hear from you regarding the proposed changes. Please submit your feedback to me by September 11, 2015. Should you have any questions regarding this proposed program, I may be reached by phone at (916) 303-2780 or via email at [troschen@interwestgrp.com](mailto:troschen@interwestgrp.com).



Theron Roschen, PE  
Interwest Consulting Group (CalRecycle Contractor)

Copyright © 2015 RAC - All Rights Reserved.

VISIT OUR WEBSITE: [www.calrecycle.ca.gov/Tires/GreenRoads/](http://www.calrecycle.ca.gov/Tires/GreenRoads/)

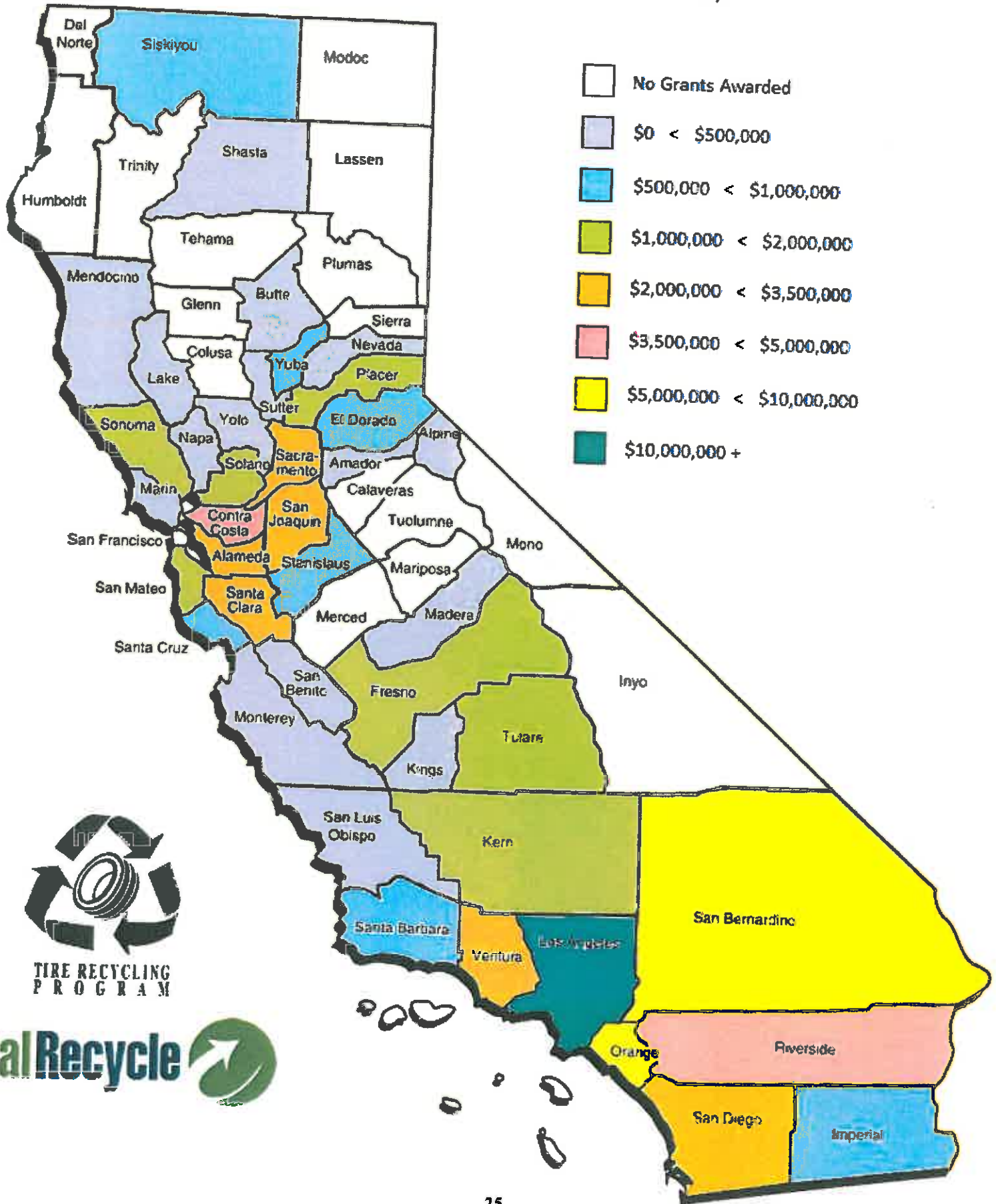
This message was sent to [calvin.young@calrecycle.ca.gov](mailto:calvin.young@calrecycle.ca.gov) from:

Nate Gauff (CalRecycle) | [p.ransdell@circlepoint.com](mailto:p.ransdell@circlepoint.com) | CalRecycle | 1001 I Street |  
Sacramento, CA 95812

[Unsubscribe](#)

Email Marketing by  
**iContact**  
try it free

# Rubberized Pavement Grant Awards for the Pavement Grant Program (FY 2003/04 through FY 2014/15)





## THE CALIFORNIA WATER BOARDS' STORM WATER STRATEGY INITIATIVE – Spring-Fall 2014 (June 5, 2014)

Storm water management plays a vital role in the quality and availability of water in California. While urban storm water runoff is a significant contributor to water pollution in many parts of the state, it is also a largely untapped water source. As California's population grows and climate change continues, effective storm water management will become even more urgently needed. The California Water Boards (Water Boards) seek to shift regulation and management of storm water to better focus on incentive-driven multiple-benefit approaches that achieve tangible results in terms of both improved water quality and supply.

Over the next several months, the Water Boards will engage with stakeholders through a collaborative process to identify and discuss storm water program issues and potential approaches to address them. The product of this collaboration will be a prioritized list of potential Water Board actions. From the list of potential actions, the Water Boards will identify those actions they will pursue through development of specific work plans. Development of work plans will be the second phase of the project.

Potential actions will focus on the following three main elements:

- Utilize storm water as a resource – Treating storm water as a resource improves water quality and supply, by protecting and restoring key watershed processes such as overland flow, groundwater recharge, and pollutant uptake. When done properly it can help reduce flooding, mitigate storm water pollution, enhance habitat, and improve water use efficiency<sup>1</sup>.
- Remove storm water pollutants by true source control – True source control is preventing introduction of pollutants into the environment through product bans, product substitutions, legislative phase outs, and coordination with other agencies. True source control is aimed at preventing use of pollutants instead of removing them from storm water through treatment.
- Improve Water Board program efficiency and effectiveness – Improving program efficiency and effectiveness will increase the rate of productivity while concurrently achieving progress towards desired environmental outcomes of improved water quality, reliable water supply, and healthy watersheds.

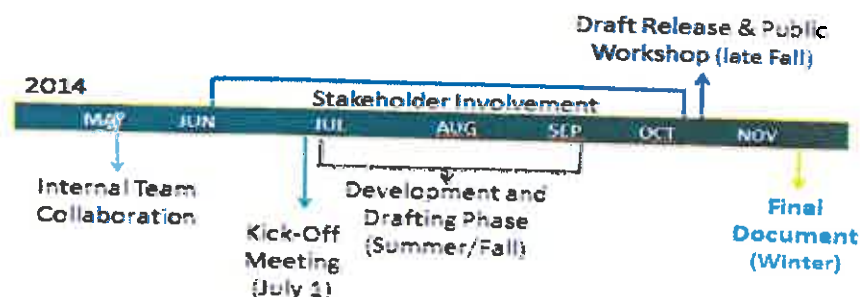


Figure 1 - Timeline for Storm Water Strategic Workplan Initiative

For more information please visit our webpage:

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/strategy\\_initiative.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/strategy_initiative.shtml) or contact Greg Gearheart ([greg.gearheart@waterboards.ca.gov](mailto:greg.gearheart@waterboards.ca.gov) or 916-341-5892) or Ali Dunn ([ali.dunn@waterboards.ca.gov](mailto:ali.dunn@waterboards.ca.gov) or 916-341-6899).

<sup>1</sup> "Water use efficiency" is a measure of water use and is generally associated with conservation principles. Water use efficiency measures include urban and agricultural water conservation to manage water demands, and development of new local water supplies through water recycling and storm water capture. See also California Department of Water Resources' page dedicated to it, [here](#), and the Water Boards' fact sheet on it, [here](#).





# **Agenda Item VII**

## **SOLID WASTE REGULATORY UPDATES**





RURAL COUNTY REPRESENTATIVES  
OF CALIFORNIA

August 27, 2015

Ms. Shelby Livingston  
Chief, Climate Investments Branch, Policy Section  
California Air Resources Board  
1001 I St.  
Sacramento, CA 95812

**RE: Cap and Trade Auction Proceeds Second Investment Plan Draft Concept Paper**

Dear Ms. Livingston:

The Rural County Representatives of California (RCRC) is an association of thirty-four rural California counties and the RCRC Board of Directors is comprised of elected supervisors from each of those member counties. Our member counties are tasked with a variety of decision-making responsibilities related to land use and development in rural California communities and are challenged with environmental stewardship, economic vitality, and social equity at the local level. We appreciate this opportunity to comment on the Cap and Trade Auction Proceeds Second Investment Plan Draft Concept Paper (Concept Paper).

RCRC fully supports the idea of the State providing additional funding opportunities from the Greenhouse Gas Reduction Fund (GGRF) for rural communities as outlined in Section III.H. of the Concept Paper. Rural communities face many challenges accessing GGRFs due to the use of the CalEnviroScreen tool to identify disadvantaged communities (DACs) for distribution of cap and trade auction proceeds. The use of CalEnviroScreen to define DACs effectively denies twenty-nine counties any chance to see those earmarked funds used for projects benefiting their communities. Many of these counties contain forested communities that are considered DACs, some severely disadvantaged, under other widely-recognized definitions used by the State, including the definition in Section 75005 of the Public Resources Code. Rural communities also generally have fewer resources to compete against urban and suburban projects for the remaining funds not reserved for DACs, all but insuring that citizens living in rural California will receive little benefit from cap and trade proceeds in the near term. While additional rural funding programs won't solve the fundamental flaws in CalEnviroScreen, those opportunities will at least help insure that rural

1215 K Street, Suite 1650, Sacramento, CA 95814 | [www.rcrcnet.org](http://www.rcrcnet.org) | 916.447.4806 | Fax: 916.448.3154

ALPINE AMADOR BUTTE CALAVERAS COLUSA DEL NORTE ELDORADO GLENN HUMBOLDT IMPERIAL INYO LAKE LASSEN MADERA MARIPOSA MENDOCINO  
MERCED MODOC MONO NAPA NEVADA PLACER PLUMAS SAN BENITO SHASTA SIERRA SISKIYOU SUTTER TEHAMA TRINITY TULARE TUOLUMNE YOLO YUBA

communities, whether socioeconomically disadvantaged or not, will have the opportunity to compete for GGRFs. RCRC would be happy to assist the Air Resources Board (ARB) in the development of such a program as you prepare the draft Investment Plan.

RCRC also supports the enhanced funding focus on natural and working lands, particularly forest lands. Due to decades of mismanagement of our forests, California has experienced increased forest fires both in terms of acreage and intensity over the years. Changing climate and severe drought conditions have exacerbated California's wildfire risk considerably over the past several years, and studies predict that wildfire emissions will increase by as much as twenty-four percent over 1961-1990 levels in the next thirty years.<sup>1</sup> We also know that the USDA Forest Service (USFS) now annually exhausts its entire fire suppression budget early in the fire season, forcing the agency to "borrow" funds from other programs such as forest management and fuels treatment to pay for fire suppression. RCRC feels that wildfire prevention projects on both state and national forest lands, such as fuels treatment, forest management, and biomass infrastructure projects, would result in significant emissions reductions benefits in the near term and yield the co-benefits of protecting wildlife and watershed health.

The 2013 Rim Fire burned 257,000 acres and is estimated to have generated 11.3 million metric tons of greenhouse gas emissions. This is equivalent to the annual emissions from 2.3 million cars.<sup>2</sup> RCRC believes that emissions from fires, such as the Rim Fire, could be mitigated or even completely prevented through cooperative efforts between the State and the USFS to increase the pace and scale of forest management and fuels treatment projects on the national forests. Projects such as the cooperative endeavor between the State and the USFS to mitigate the damage from the 2014 King Fire are good examples of efforts that could and should be funded with cap and trade dollars and should be prioritized in the Investment Plan.

RCRC also believes that including funding for state subventions of the Williamson Act program in the Investment Plan has great potential to prevent conversion and preserve carbon sequestration on active agricultural lands. The Williamson Act, if funded, could prove a vital tool in preserving agricultural lands and maintaining or even boosting carbon sequestration potential without having to create a brand new program to achieve the same results. While counties are still honoring current contracts, there are a number of counties considering termination of their Williamson Act contracts absent state funding for the program due to fiscal pressures on

---

<sup>1</sup> Matthew D. Hurteau, Anthony L. Westerling, Christine Wiedinmyer, and Benjamin P. Bryant, "Projected Effects of Climate and Development on California Wildfire Emissions through 2100," *Environmental Science & Technology* 2014, 48, 2298-2304 DOI: dx.doi.org/10.1021/es4050133

<sup>2</sup> Sierra Nevada Conservancy. (2014). The Rim Fire: Why investing in forest health equals investing in the health of California [Fact Sheet]. Retrieved from <http://www.sierranevada.ca.gov/factsheets/10.31rimfirefactsheet.pdf>.

Ms. Shelby Livingston  
Cap and Trade Investment Plan  
August 27, 2015  
Page 3

their General Fund Budget for public safety and other needed programs in the county. RCRC asks that you consider Williamson Act subvention funding as part of the State's cap and trade funding priorities to help preserve carbon sequestration on California's agricultural lands.

In 2014, Assembly Bill 1826 (Chesbro) was enacted, creating a new mandatory statewide organics program. This program establishes a phased expansion of organic recycling for businesses and multi-family residential dwellings beginning in 2016. RCRC thoroughly concurs with the draft Concept Paper that meeting the State's waste diversion and utilization goals "will require a significantly larger investment in infrastructure to support resource recovery from organic waste, including production of various forms of energy, compost, and other soil amendments." This investment is particularly critical to provide the necessary capacity for processing the organic waste stream diverted from landfills in order to meet the 75 percent recycling and composting goal by 2020.

If you should have any questions or concerns, or would like to discuss our comments further, please contact me at (916) 447-4806 or [sheaton@rcrcnet.org](mailto:sheaton@rcrcnet.org).

Sincerely,



STACI HEATON  
Regulatory Affairs Advocate

cc: Mary Nichols, Chair, California Air Resources Board  
Richard Corey, Executive Director, California Air Resources Board  
RCRC Board of Directors



**Draft**  
**Short-Lived Climate Pollutant Reduction Strategy**

**September 2015**

**California Environmental Protection Agency**  
 **Air Resources Board**

## Table of Contents

EXECUTIVE SUMMARY .....	1
I. Introduction: Showing the Way to 2°C .....	1
A. Significant Benefits from Accelerated Action to Cut SLCP Emissions .....	2
B. Building on California’s Air Quality and Climate Leadership .....	4
C. Purpose of SLCP Reduction Strategy .....	5
D. Achieving Science-Based Targets .....	6
E. Coordinating Research Efforts Related to SLCPs .....	8
F. Process for Developing the SLCP Reduction Strategy .....	9
II. California’s Approach to Reducing SLCP Emissions.....	10
A. Prioritize Actions with Diverse Benefits.....	10
B. Put Organic Waste to Beneficial Use.....	11
C. Identify Practical Solutions to Overcome Barriers.....	12
D. Invest in SLCP Emission Reductions and Communities.....	13
E. Advance the Science of SLCP Sources and Emissions.....	15
F. Need for Focused SLCP Programs.....	15
III. Latest Understanding of Science on SLCPs.....	18
A. Black Carbon .....	22
B. Methane.....	23
C. Fluorinated Gases (Hydrofluorocarbons).....	25
IV. Reducing Black Carbon Emissions.....	27
A. Anthropogenic (Non-Forest) Sources of Black Carbon Emissions.....	27
1. Progress to Date.....	28
2. Additional Reductions by 2030 .....	32
3. Recommended Actions .....	33
B. Forest-Related Sources of Black Carbon Emissions .....	35
1. Progress to Date.....	35
2. Additional Reductions by 2030 .....	36
V. Reducing Methane Emissions .....	39
A. Progress to Date .....	39
B. Recommended Actions to Further Reduce Methane Emissions.....	42
VI. Reducing F-Gas Emissions .....	56
A. Progress to Date.....	58
B. Recommended Actions to Further Reduce F-Gas Emissions.....	59



VII. Achieving Success .....	65
A. Integrate and Coordinate Planning .....	65
B. Enable Local and Regional Leadership .....	66
C. Investments .....	68
D. Coordinate with Subnational, Federal, and International Partners.....	70
VIII. Evaluations.....	72
A. Economic Analysis.....	72
B. Public Health Assessment .....	73
C. Environmental Justice and Disadvantaged Communities .....	74
D. Environmental Analysis.....	76
IX. Next Steps.....	77

## Appendices

Appendix A: California SLCP Emissions

Appendix B: Research Related to Mitigation Measures

## EXECUTIVE SUMMARY

It is clear that the impacts of climate change are already upon us. California continues to suffer through historic temperatures, drought, and wildfires, and the State faces the prospect of an epochal El Niño season in the coming winter. Each year seems to bring a new global temperature record, and new evidence suggests sea levels are rising much faster than predicted. What was once, and remains, a generational problem of CO<sub>2</sub> balance in the atmosphere has now become an immediate threat to our California lifestyle.

The only practical way to rapidly reduce the impacts of climate change is to employ strategies built on the tremendous body of science. The science unequivocally underscores the need to immediately reduce emissions of Short-Lived Climate Pollutants (SLCPs), which include black carbon (soot), methane (CH<sub>4</sub>), and fluorinated gases (F-gases, including hydrofluorocarbons, or HFCs). They are powerful climate forcers and dangerous air pollutants that remain in the atmosphere for a much shorter period of time than longer-lived climate pollutants, such as CO<sub>2</sub>, and are estimated to be responsible for about 40 percent of current net climate forcing. While the climate impacts of CO<sub>2</sub> reductions take decades or more to materialize, cutting emissions of SLCPs can immediately slow global warming and reduce the impacts of climate change.

While we must continue to steadily reduce CO<sub>2</sub> emissions for long-term climate stability, we also need a global commitment and near-term actions to dramatically reduce SLCP emissions over the next 10–15 years. California is committed to taking further action to reduce SLCP emissions by 2030. Senate Bill 605 (Lara, Chapter 523, Statutes of 2014) requires the Air Resources Board (ARB or Board) to develop a plan in 2015 to reduce emissions of SLCPs. Additionally, Governor Brown has identified reductions of SLCP emissions as one of “five pillars” to meet an overarching goal to reduce California’s GHG emissions by 40 percent below 1990 levels by 2030. This draft SLCP Reduction Strategy (Draft Strategy) was developed pursuant to SB 605 and lays out a range of options to accelerate SLCP emission reductions in California, including incentivizing early voluntary reduction actions and market-supporting activities, and regulatory action.

Using cost-effective and available technologies and strategies, worldwide anthropogenic sources of SLCP emissions can be largely controlled by 2030 and the global benefits of a collective commitment to substantially reduce SLCP emissions would be profound. Leading efforts by California, the United States, Mexico, Norway, Europe, the Arctic Council, and several countries and non-governmental entities acting through the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC) are already targeting SLCPs.

Deploying existing technologies globally to reduce SLCP emissions can cut the expected rate of global warming in half and keep average warming below the dangerous 2°C threshold at least through 2050. We can slow sea level rise significantly, reduce disruption of historic rainfall patterns, and boost agricultural productivity by reducing crop losses to air pollution. Cutting SLCP emissions

immediately will slow climate feedback mechanisms in the Arctic and elsewhere that would otherwise further accelerate global warming and make climate change far more difficult to solve and far more costly to live with, as more resources are shifted to disaster relief, conflict management, and adaptation. Most importantly, we can dramatically reduce global air pollution, saving millions of lives each year. Many of these benefits will primarily accrue in regions and populations disproportionately impacted by climate change, including the developing world.

### **California - Already a Leader on Reducing SLCP Emissions**

California has been a global leader in cutting air pollution and fighting climate change for decades, which is serving as a catalyst for national and international action. A focused strategy for reducing emissions of SLCPs will benefit California—as well as our planet and other regions that continue to follow California's lead.

The State is already seeing the benefits of historical action on SLCP emissions. Existing policies are saving thousands of lives in the State each year, and they provide a strong foundation to support further efforts to reduce emissions of these dangerous pollutants:

- **Black Carbon:** California has cut levels of black carbon emissions from anthropogenic sources by more than 90 percent since the 1960s. From 2000 to 2020, California will have cut black carbon from mobile sources by 75 percent and from anthropogenic sources by 60 percent. These efforts prevent an estimated 5,000 premature deaths in the State each year. If the world replicated this success, it would prevent an estimated 3.5 million premature deaths each year, and slow global warming by as much as 15 percent, offsetting one to two decades of CO<sub>2</sub> emissions.
- **Methane:** California has the nation's strongest standards for limiting methane emissions from landfills. It has offset protocols under its Cap-and-Trade program to encourage the reduction of methane emissions, and rules under development and being implemented to create a comprehensive approach to limit methane leaks from oil and gas production, processing, and storage, and from the natural gas pipeline system. In addition, the State has historically regulated volatile organic compound emissions to meet air quality goals, which have resulted in a co-benefit of methane reductions. Altogether, these measures are keeping methane emissions from rising in California.
- **F-gases:** The State has regulations in place to reduce emissions from refrigerants, motor vehicle air-conditioning, and consumer products that together will cut emissions of F-gases by 25 percent below otherwise projected levels in 2020. The State's Cap-and-Trade offset protocol for ozone depleting substances incentivizes the capture and destruction of those gases (which are also F-gases).

## **An Opportunity for California**

Still, more remains to be done, and California is doubling down on its efforts to control emissions of SLCPs from all sources. A dedicated commitment, as described in this Draft Strategy, to achieve near-term (2020 timeframe) as well as longer-term reductions in SLCP emissions in California would provide significant benefits throughout the State. Actions to reduce emissions of SLCPs can improve air quality and reduce related health risks, hospitalizations, and medical expenses – especially in disadvantaged communities. State and international action to cut SLCP levels would reduce damage to forests and crops, lower background ozone and particulate levels to help meet federal health-based air quality standards, and reduce disruption of historic rainfall patterns.

As California pursues additional reductions in black carbon, further climate change and public health benefits can be realized. California's efforts to reduce particulate matter emissions have been linked with improved lung function in children. Further reducing black carbon emissions also decreases exposure to toxic diesel particulate matter and associated health risks. Significant national and international climate change, air quality, and public health benefits can be achieved if the rest of the nation and the world follow California's lead on black carbon.

Reducing methane emissions and harnessing captured methane can help meet multiple objectives, from reducing SLCP emissions to reducing air pollution, improving soil health, and increasing the supply of California-produced biofuels. Doing so can also improve air quality and water quality and generate valuable, local, renewable energy and soil amendment products. While barriers remain that limit market-based solutions to put organic waste streams to beneficial use, collaborative efforts to overcome them could open valuable markets that could help to scale solutions to reduce emissions of SLCPs. Products from organic waste streams in California, and potential environmental credits from them, could represent a billion dollar market for California dairies and other project developers. Developing infrastructure to enable these markets could lead to significant investment in the State, much of it concentrated in the Central Valley. In order to fully realize these economic and environmental benefits, California must work to overcome obstacles to financing and developing projects that use organic waste streams.

National and international agreements provide the best way to reduce the supply of and emissions from the use of refrigerants with high global warming potentials (GWP). However, additional actions in California can accelerate the development and deployment of alternatives. The Montreal Protocol has already been used to significantly reduce emissions from many sources of F-gases, which has provided significant global climate benefits. Including HFCs under the Montreal Protocol to phase down the production of F-gases could reduce global greenhouse gas (GHG) emissions by 100 billion tonnes CO<sub>2</sub>e and reduce average global warming by as much

as 0.5°C by 2100.<sup>1</sup> California will monitor international negotiations to determine how the State's actions can support, complement, and speed emission reductions. Even with an international agreement, additional, cost-effective reductions in HFC emissions may be available in California, to help meet the State's 2020 and 2030 GHG goals.

In the coming years, many billions of dollars in public and private investments are anticipated to support efforts to reduce SLCP and CO<sub>2</sub> emissions and support our agricultural sector, build sustainable freight systems, and grow healthy forests. These investments will strengthen the State as a whole and the communities where they occur. Many of the benefits will accrue in the Central Valley, rural parts of the State, or other areas disproportionately impacted by pollution, such as those along freight corridors.

Stubborn barriers remain, including connecting distributed electricity and biogas projects, which have slowed previous efforts to reduce emissions of SLCPs and capture a wide array of benefits. These barriers are not insurmountable, and now is the time to solve them. State agencies, utilities, and other stakeholders need to work immediately to identify and resolve remaining obstacles to connecting distributed electricity with the grid and injecting renewable natural gas into the pipeline. Supporting the use of the cleanest technologies with funding and strategies that maximize air, climate, and water benefits can accelerate their introduction. Building market certainty and value for the energy, soil amendment, and other products that come from compost or anaerobic digestion facilities would help to secure financing and scale project deployment.

### **Building on California Leadership**

This Draft Strategy builds on California's ongoing leadership to address climate change and improve air quality. It has been developed with input from State and local agencies, academic experts, a working group of agricultural experts and farmers convened by the California Department of Food and Agriculture (CDFA), businesses, and other interested stakeholders in an open and public process. ARB and State agencies collaborated to identify reduction measures for specific sectors, including the dairy, wastewater, and waste sectors. In addition, ARB collaborated with the local air districts to identify SLCP emission reduction measures that could be implemented through district action. Throughout this process, ARB has sought advice from academic, and industry representatives. For example, climate change experts reviewed material in the May 2015 Concept Paper as well as in this Draft Strategy. Additionally, ARB staff is working closely with manufacturers to determine the feasibility and cost of replacement products for high-GWP refrigerants, and with the dairy industry to evaluate options for reducing emissions of methane at dairies.

While reducing GHG emissions is a key objective for the State, California remains committed to further reducing emissions of criteria (smog-forming) pollutants and toxic

---

<sup>1</sup> Xu Y., Zaelke D., Velders G. J. M., & Ramanathan V. (2013) The role of HFCs in mitigating 21<sup>st</sup> century climate change, *ATMOS. CHEM. PHYS.* 13:6083-608

air pollutants, as well. Many of the concepts described in this Draft Strategy have already been discussed in the context of sustainable freight strategies, state implementation plans for air quality, and plans for bioenergy, waste management, water management, healthy soils, and sustainable management of the state's natural resources. The SLCP Strategy, along with those other planning efforts, will inform and be integrated into the upcoming 2016 Scoping Plan, which will incorporate input from a wide range of stakeholders to develop an integrated plan for reducing emissions of GHGs, criteria pollutants, and toxic air pollutants through 2030. The process for updating the Scoping Plan will kick off in fall 2015 and is scheduled for completion in 2016.

State agencies are committed to continuing to work together to ensure that the concepts outlined in this Draft Strategy are implemented in a coordinated and synergistic way. The sections below describe mandatory and voluntary measures, incentives, and other policies that:

- Encourage national and international deployment of California's well-established and proven measures to reduce black carbon emissions;
- Pursue additional reductions in black carbon emissions from off-road and non-mobile sources;
- Reduce methane or avoid methane emissions before they are released;
- Make the best use of methane that is generated (for example, as a transportation fuel or for clean power generation); and
- Accelerate the transition to low-GWP refrigerants.

ARB staff will receive and consider comments on this Draft Strategy and prepare a proposed Strategy to present to the Board in late 2015, with a final proposed Strategy presented to the Board for consideration in Spring 2016.

### **Achieving Science-Based Targets**

Assessments of global potential to reduce SLCP emissions suggest that cost-effective measures can cut methane emissions by about 40 percent and black carbon by about 80 percent below 2005 levels. Additionally, a new global phase down of HFCs under the Montreal Protocol and other efforts could cut the expected production of F-gases by 70 percent in 2030. Achieving these levels of global reductions would deliver significant climate benefits. It would cut the expected rate of global warming in half by 2050, slowing global temperature rise by about 0.6°C, which would reduce the risk of dangerous climate feedbacks such as accelerated Arctic melting and sea level rise.

Based on stakeholder feedback on the Concept Paper released in May 2015, as well as further analysis, ARB is proposing targets to reduce emissions of methane and F-gases by 40 percent below current (2013) levels by 2030, and anthropogenic (non-forest) black carbon emissions by 50 percent below current levels by 2030.

The goals and proposed measures included in this Draft Strategy will reduce SLCP emissions to levels in-line with these targets. The proposed targets are summarized in Table 1.

**Table 1. California SLCP Emissions and Proposed Target Emission Levels (MMTCO<sub>2e</sub>)<sup>1</sup>**

Pollutant	2013	2030	
		BAU <sup>2</sup>	Draft Strategy
Black carbon (non-forest)	38	26	19
Methane	118	117	71
F-gases	40	65	24

<sup>1</sup> Using 20-year GWPs from the 4<sup>th</sup> Assessment report of the IPCC for methane and F-gases, and 5<sup>th</sup> Assessment report for black carbon

<sup>2</sup> Business As Usual forecasted inventory includes reductions from implementation of current regulations

Climate change is no longer a problem to be defined simply in terms of a legacy we leave to our grandchildren or impacts in the year 2100. It is affecting us now, and will only accelerate in our lifetime. Due to the urgency of the issue, and the need to recognize the costs and benefits of addressing it immediately, we use 20-year GWPs in this report to quantify emissions of SLCPs.

### **Black Carbon**

Black carbon is not one of the climate pollutants originally included in international climate frameworks, and it is not included in California's AB 32 inventory. However, recent studies have shown that black carbon plays a far greater role in global warming than previously believed. California has made tremendous progress in reducing black carbon emissions as part of its efforts to reduce carcinogenic diesel particulate matter emissions and improve air quality. California has already cut anthropogenic black carbon emissions by over 90 percent since the 1960s, and existing measures are projected to cut mobile source emissions by 75 percent and total anthropogenic emissions by nearly 60 percent between 2000 and 2020. Putting measures in place to achieve similar levels of reductions worldwide is the quickest way to reduce the impacts of climate change, and would save millions of lives per year.

These reductions have come from strong efforts to reduce on-road vehicle emissions, especially diesel particulate matter. Car and truck engines used to be the largest sources of black carbon emissions in California, but California's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years. These policies are based on existing technologies, which could be deployed throughout the country and the world.

With the large reduction in emissions of black carbon from vehicles, other sources of black carbon emissions will become more significant contributors to the State's black carbon inventory over time. In particular, without additional actions, off-road mobile, fuel combustion in the industrial and power sectors, and residential fireplaces will account

for more than three-quarters of black carbon emissions in California in 2030. However, black carbon emissions from these sources have declined significantly, as well – by almost 30 percent since 2000. Continued progress on these sectors – transitioning to cleaner and more efficient uses of energy, reducing emissions from residential fireplaces, taking steps to meet federal health-based air quality standards by 2031, and developing a sustainable freight system – will continue to reduce black carbon emissions and should allow us to meet the targets established in this Draft Strategy. Additional measures in these areas will be identified in the State’s Mobile Source State Implementation Plan Strategy, 2016 Scoping Plan Update, and Sustainable Freight Strategy, a multi-agency effort to deploy a sustainable and efficient system for goods movement.

The largest source of black carbon emissions in California, by far, is wildfire. An average wildfire season contributes two-thirds of current black carbon emissions in California. As climate change accelerates, our drought-ravaged forests will only become more vulnerable to wildfire and disease. Indeed, many of California’s forests are already in a perilous condition and require accelerated management and investment to protect them. Several Federal, State, and local agencies are currently coordinating on forest planning, which will lead to the development of a comprehensive Forest Carbon Plan in 2016. As part of this and related efforts, black carbon mitigation will be considered along with forest health, carbon sequestration, habitat and watershed production, and other drivers associated with protecting our forests.

### ***Methane***

Methane is responsible for about 20 percent of current net climate forcing globally. In California, about half of methane emissions come from organic waste streams that can be put to valuable use as sources of renewable energy or fuel and soil amendments. The other half mostly comes from enteric fermentation (burps) from dairy cows and livestock and fugitive emissions (leaks) from oil production, processing, and storage, gas pipeline system, or industrial operations. California can cut methane emissions by 40 percent below current levels in 2030 by avoiding or capturing methane from manure at dairies, meeting national industry targets for reducing methane emissions from enteric fermentation, effectively eliminating disposal of organics in landfills, and reducing fugitive methane emissions by 40-45 percent from all sources.

Strong market support and broad collaboration among State agencies, industry, and other stakeholders will be necessary to reduce landfill and manure methane emissions by putting organic waste streams to beneficial use. The State will support early action to build infrastructure and reduce emissions through existing incentives, potentially new and continued Greenhouse Gas Reduction Fund investments, and accelerated efforts to overcome barriers and foster markets. Continued and potentially new working groups will work to foster market conditions to support private sector investment in infrastructure, including building markets for compost and soil amendments, overcoming barriers to pipeline injection of biomethane, and identifying optimal financing mechanisms and levels to reach the goals in this Draft Strategy at minimal cost.



Ultimately, a combination of incentives, State and private sector investment, and regulations will be necessary to capture the value in organic waste streams and ensure lasting emission reductions. For landfills, ARB will work with CalRecycle to develop a regulation by 2018 to progress towards existing State targets for landfill diversion by 2020, and to effectively eliminate organic disposal in landfills by 2025. On dairies, ARB, in consultation with CDFA will develop a regulation by 2018 to require avoiding or capturing methane from manure management at new and expanded dairies. This will limit any potential growth in methane emissions from manure management practices in the State. Additionally, the agencies will monitor progress towards targets for existing dairies to reduce methane emissions from dairy manure management by 20 percent in 2020, 50 percent in 2025, and 75 percent in 2030. Based on progress toward these voluntary targets, and considering the level of market support available and potential for emissions leakage, ARB will develop a timeline for regulating existing dairies to require avoiding or capturing methane emissions from manure management. Finally, as many of the State's wastewater treatment plants undergo renovation or reconstruction over the next 15 years, ARB will work with the State and regional Water Boards to assess the feasibility and benefits of actions to require capturing and effectively utilizing methane generated from wastewater treatment.

This Draft Strategy also establishes a goal of reducing fugitive methane emissions from oil and gas by 40 percent below current levels in 2025 and 45 percent in 2030, and from all other sources by 40 percent in 2030. This aligns with the goal of the Obama Administration to reduce methane emissions from oil and gas operations by 40–45 percent below 2012 levels by 2025.

California has a comprehensive and stringent emerging framework to reduce methane emissions from oil and gas production, processing, storage, and the natural gas pipeline system. ARB is developing a regulation to reduce fugitive methane emissions from the oil and gas production, processing and storage sector, which will be among the most stringent such regulations in the country, along with similar policies in Colorado and Wyoming. Additionally, pursuant to Senate Bill 1371 (Leno, Chapter 525, Statutes of 2014), the California Public Utilities Commission has launched a rulemaking to minimize methane leaks from natural gas transmission and distribution pipelines. Increases in energy efficiency and renewable energy, as well as more dense development patterns, will reduce oil and gas demand and fugitive emissions. ARB and the California Energy Commission (CEC) have also conducted several research projects to improve methane emission monitoring and accounting, as well as identify emission “hotspots,” which are responsible for large fractions of total fugitive emissions. These efforts will continue, and are critical to accelerating leak detection and fugitive methane emission reductions from all sectors, not just oil and gas.

Finally, the dairy industry has long been proactive in reducing the environmental footprint associated with its product, and the national dairy industry has set a voluntary goal of reducing emissions from enteric fermentation by 25 percent below 2008 levels by 2020. This level of reduction from current levels by 2030 is set as a goal for the

sector. While options exist to affect enteric emissions, more research is needed to fully evaluate the viability of these strategies in California and assess their associated costs and benefits.

### ***F-gases***

Fluorinated gases, and in particular HFCs, are the fastest-growing source of GHG emissions in California and globally. More than three-quarters of HFC emissions in California come from the use of refrigerants in the commercial, industrial, residential, and transportation sectors. In many cases, alternatives with much lower GWPs are already available and the United States Environmental Protection Agency (U.S. EPA) is beginning to impose bans on the use of F-gases with the highest GWPs in certain applications and sectors. Additionally, there is strong international momentum and interest to phase down the use of HFCs under the Montreal Protocol, as has already been done for other F-gases. An agreement to do so could be potentially reached at the annual Meeting of Parties in November 2015. In the absence of a sufficiently rigorous international agreement in November, ARB will evaluate the feasibility of a phasedown for California that aligns with similar efforts and stringency levels in Australia, Canada, Europe, and Japan.

California can complement these national and potential international actions by taking additional steps to reduce F-gas emissions at low cost. Early action, ahead of some of the phase down schedules being proposed internationally, can avoid locking-in the use of high-GWP refrigerants in new or retrofitted systems in the coming years. This would lead to unnecessary emissions now and into the future, requiring the State to take additional—likely more costly—steps to meet its 2030 climate targets. The State should consider developing an incentive program to encourage the use of low-GWP refrigerants, which could lead to very low cost emission reductions and could be implemented while further regulations are considered or developed. Also, as effective alternatives become available, ARB will consider developing bans on the use high-GWP refrigerants in sectors and applications not covered by U.S. EPA regulations.

This Draft Strategy identifies measures that can reduce F-gas emissions by more than 40 percent in California by 2030 and potentially capture additional, available reductions in HFC emissions now, and into the future. ARB will monitor progress on national and international efforts to reduce F-gas emissions, and may update this set of measures if additional national or international steps are taken before the proposed Strategy is released.

A summary of all proposed SLCP emission reduction measures and estimated reductions is presented in Table 2.

**Table 2: Summary of Proposed New SLCP Measures and Estimated Emission Reductions (MMTCO<sub>2e</sub>)<sup>1</sup>**

Measure Name	2030 Annual Emission Reductions	2030 Annual Emissions
<b>Black Carbon (Non-Forest)</b>		
2030 BAU <sup>2</sup>		26
Residential Fireplace and Woodstove Conversion	3	
Sustainable Freight Strategy State Implementation Plans Clean Energy Goals	~4 <sup>3</sup>	
2030 BAU with new measures		19
<b>Methane</b>		
2030 BAU <sup>2</sup>		117
Dairy Manure	21	
Dairy and Livestock Enteric Fermentation	5	
Landfill	5	
Oil and Gas	8	
Wastewater, Industrial, and Other	7	
2030 BAU with new measures		71
<b>F-Gases</b>		
2030 BAU <sup>2</sup>		65
Financial Incentive for Low-GWP Refrigeration Early Adoption	2	
HFC Supply Phasedown	23	
Sales ban of very-high GWP refrigerants	1	
Prohibition on new equipment with high-GWP	15	
2030 BAU with new measures		24

<sup>1</sup> Using 20-year GWPs from the 4<sup>th</sup> Assessment report of the IPCC for methane and F-gases, and 5<sup>th</sup> Assessment report for black carbon

<sup>2</sup> "Business As Usual" forecasted inventory includes reductions from implementation of current regulations

<sup>3</sup> Additional black carbon reductions will be realized from planned measures, and are expected to help the State meet the black carbon target. However, an estimate of emission reductions is not currently available, but will be developed as part of these planning efforts.

### Putting the Strategy into Action

The proposals and emission estimates presented in this report are preliminary, and will be further evaluated through a public process before a proposed Strategy is presented to the Board in late 2015. While the goals and actions identified in this Draft Strategy offer potentially significant economic, climate and health benefits, a more thorough

accounting of costs and benefits will be presented in the proposed Strategy. Several analyses consider the costs and benefits of actions like those described in this plan to cut SLCP emissions, and find that efforts to do so can deliver relatively low-cost GHG reductions. However, additional references with California-specific information would be helpful to inform our economic analysis. During the public review process, ARB welcomes this type of information, along with other comments. A macroeconomic analysis of the measures identified in the proposed strategy will be developed as part of a broader analysis in the 2016 Scoping Plan Update.

Any regulatory measures developed pursuant to the SLCP Strategy would undergo a complete, public rulemaking process including workshops, and economic and environmental evaluations. While this Draft Strategy is intended to be comprehensive, it is not exhaustive. We will continue to pursue new cost-effective programs and measures as technology and research on SLCP emission sources and potential mitigation measures advances.

Effectively implementing this Draft Strategy will require working with local, regional, federal and international partners, and diligently investing time and money to overcome market barriers that hinder progress. The extent to which we do so will drive results, which can include a wide range of significant economic and environmental benefits for California broadly, and many of the State's most disadvantaged communities, specifically.

Finally, the State will only realize the full benefits of strong action to reduce SLCP and CO<sub>2</sub> emissions if others take committed action, as well. Strong, near-term action to cut emissions of SLCPs, in conjunction with immediate and continuous reductions in emissions of CO<sub>2</sub>, is the only way to stabilize global warming below 2°C. Accordingly, California has signed a number of agreements to work together with other countries, including China and Mexico, to support actions to fight climate change and cut air pollution. Additionally, California is bringing together subnational jurisdictions under the Subnational Global Climate Leadership Memorandum of Understanding (the "Under 2 MOU"), which commits signatories to take steps to reduce SLCP and CO<sub>2</sub> emissions and meet the goal of keeping global average warming below the 2°C threshold by reducing their GHG emissions to under 2 metric tons per capita, or 80–95 percent below 1990 levels, by 2050. To date, a total of 41 jurisdictions representing 19 countries and five continents have signed or endorsed the Under 2 MOU, collectively representing more than \$12.3 trillion in GDP and 387 million people. If the signatories represented a single country, it would be the second largest economy in the world behind only the United States. As it implements the actions identified in this Draft Strategy and other related climate change planning efforts, California will continue to share its successes and approach with others, to expand action to address climate change and deliver local and global benefits for the State.

# RESOURCES FOR CALIFORNIA'S FUTURE

To meet California's ambitious goals of reducing greenhouse gas (GHG) emissions and safeguarding the state from the impacts of climate change, we must protect and manage natural and working lands - forests, rangelands, wetlands, farmlands and natural ecosystems - to serve as carbon sinks. Forests and other lands can be actively managed to mitigate the threat of climate change while buffering both people and nature from its expected impacts. State and local efforts to manage land for carbon sequestration should work in conjunction with existing plans and programs protecting California's water supply, agricultural lands, and wildlife habitat. These efforts require an integrated approach across public and private land on a landscape scale to ensure enhanced ecosystem services and maximum management flexibility for our climate-constrained future.

## THE VALUE OF NATURAL AND WORKING LANDS

- » California's land base stores carbon below ground, in soil and root systems, and above ground, in trees, shrubs, grasses and other plant biomass. When protected from development and managed for reducing GHG emissions, these lands can mitigate emissions from other sources and sectors.
- » Healthy and resilient natural and working lands provide sustainable public benefits in addition to carbon sequestration, such as water filtration, improved air quality, temperature moderation through shading, and soil fertility that supports food production. Healthy terrestrial and aquatic systems serve to buffer both humans and nature from the expected impacts of climate change, safeguarding California against persistent drought, extreme heat, increased incidence of wildfire, more destructive storm events and sea level rise.
- » Conservation of natural and working lands supports sustainable communities while protecting valuable agricultural and wildland resources and critical wildlife habitat.
- » Natural and working lands provide jobs, support regional economies and improve quality of life for all California residents. California's forests, farms and ranches produce food and fiber that is consumed locally and around the world. Natural lands, waterways and parks provide recreational opportunities and support tourism.

## HOW WE GET THERE: ALREADY ON OUR WAY

### Planning

- » The Forest Climate Action Team will publish a Forest Carbon Plan in 2016 setting targets, goals, and recommended actions for managing the state's forests to best sequester carbon and safeguard against climate change.
- » A 2015 update to the State Wildlife Action Plan will describe ecosystem management for adaptation to climate change.
- » The 2012 Bioenergy Action Plan outlines actions to improve utilization of organic biomass for renewable power and transportation fuels in a manner that promotes forest health and grows rural economies.

### Investments

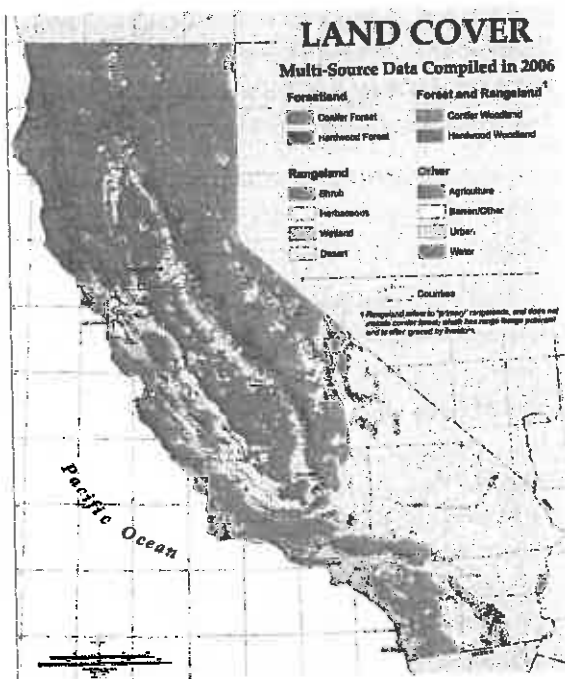
- » Greenhouse Gas Reduction Fund grants are funding agricultural and forest land conservation easements, improved forest management, wetland habitat restoration, water efficiency on agricultural operations, dairy digester implementation, agricultural land use planning for conservation and urban forestry. In addition to GHG emission reductions, these grants will provide multiple environmental, social and economic co-benefits.
- » Some of the activities funded through Voter-approved bonds targeting water supply enhancements, habitat restoration and flood management – Prop. 50 in 2002, Prop. 84 in 2006 and Prop. 1 in 2014 – also promote GHG emission reductions.

» Development and scaling of next-generation bioenergy and biofuels technologies are funded through the California Energy Commission's EPIC program.

**Collaboration**

- » The State is engaged in ongoing efforts to coordinate fire risk mitigation activities with **U.S. Forest Service and local fire departments** to maximize targeted investments.
- » The State's Watershed Improvement Program and the federal Resilient Lands and Waters Initiative are enhancing collaboration for healthy forests at the landscape level.
- » The Administration's inter-agency **Healthy Soils Initiative** promotes food security through soil health, improved climate resilience and agricultural sustainability.

**NATURAL AND WORKING LANDS IN CALIFORNIA**



Source: Fire and Resource Assessment Program (2006)

**GOING FORWARD:  
CREATING A MORE ROBUST NATURAL  
AND WORKING LANDS FRAMEWORK**

**Protect:** Minimizing conversion and managing to preserve the sequestration potential of forests, rangelands, farms, wetlands and riparian systems will be essential.

**Enhance:** We must manage and restore land to increase carbon storage and minimize GHG emissions in a sustainable manner so that the carbon bank is resilient and grows over time, and engage with local communities and private landowners to disseminate best practices to improve sequestration rates on agricultural, rangeland and forest lands; restore wetlands and other natural systems; and reduce the risk of wildfire.

**Innovate:** We will seek synergies that optimize contributions from natural and working lands while sustaining lands and rural economies. Research and development for appropriate bioenergy, food crop, water system and waste management technologies and product manufacturing that serve to support sustainable resource management will be key.

**Nature's Benefits in the City:** Increasing urban forest canopy in urban areas generates shade for improved building energy efficiency and makes alternative transportation methods such as walking and bicycling more attractive. Other green urban infrastructure solutions reduce energy use, improve water system efficiencies, and make urbanized areas more resilient to climate change.

**Land Use Planning and Sustainable Communities:** We can improve conservation outcomes and land management at the local and regional scales through spatial data sharing, collaborative programs, direct investment, and improved methods of quantifying the value of ecosystem services.

**Mapping and Data Development:** Mapping the existing and potential carbon inventory represented by natural and working lands will inform planning for both climate change mitigation and adaptation. We must also integrate data on priority habitat, agricultural conservation and watershed protection and inform the public so that land use, infrastructure and conservation planning processes at multiple scales are equipped with uniform information for decision-making.



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE



# CALIFORNIA'S 2030 CLIMATE COMMITMENT

## REDUCING EMISSIONS OF SHORT-LIVED CLIMATE POLLUTANTS

Short-lived climate pollutants (SLCPs) include methane, black carbon, tropospheric ozone, and fluorinated gases (F-gases). They are especially powerful climate forcers and harmful air pollutants that remain in the atmosphere for much less time than CO<sub>2</sub> and are responsible for about 40 percent of current global warming. Slashing SLCP emissions immediately is necessary to address climate change and realize tremendous economic, food security, health, and water benefits.

### CONSIDERABLE BENEFITS

Direct benefits from cutting SLCP emissions can be substantial and immediately tangible. California can maximize these benefits as part of an integrated strategy to reduce SLCPs, CO<sub>2</sub>, and other pollutants.

#### Significant Health Benefits

- » Current and past progress in California prevents about 5,000 premature deaths and provides billions in health benefits each year.
- » Similar reductions worldwide would save millions of lives and deliver trillions of dollars in health benefits each year.

#### Immediate Climate Benefits

- » Only way to immediately slow global warming
- » Immediate global reductions necessary to limit warming below 2°C through at least 2050
- » Cost-effective strategies applied globally can cut the current rate of global warming in half by 2050 and by two-thirds in the Arctic by 2040, reducing sea level rise by 25 percent.

#### Agricultural, Economic, Health, and Water Benefits in California

- » Reduce asthma risk, hospitalization, and premature death
- » Reduce crop losses and improve soil health
- » Improve health of forests and watersheds
- » Increase availability of renewable natural gas, electricity, and fuels
- » Reduce disruption to precipitation patterns
- » Reduce melting of snowpack

### HOW WE GET THERE

#### Already on Our Way

- » Black carbon levels are 90 percent lower than the 1960s
- » Cutting methane from landfills and oil and gas
- » Will reduce F-gas emissions by 25 percent below expected levels by 2020

#### Strengthen California Climate Leadership

Pursuant to Senate Bill 605 (Lara, Statutes of 2014, Chapter 523), the State is developing a comprehensive strategy in 2015 to further reduce SLCP emissions. The strategy will be developed through a public process and will describe specific measures to overcome stubborn barriers and significantly cut SLCP emissions, such as:

- » Reducing methane from dairies and utilize it for renewable energy or fuel
- » Diverting organic waste from landfills and convert it to energy and compost
- » Replacing high global-warming potential (GWP) refrigerants with low-GWP alternatives
- » Reducing black carbon from biomass burning with cleaner burning fireplaces and using woody waste for energy or fuel production

CALIFORNIA'S 2030 CLIMATE COMMITMENTS

# Cutting Petroleum Use in Half by 2030

*In order to meet federal health-based air quality standards and our climate change goals, we must cut in half the amount of petroleum we use in our cars and trucks over the next 15 years. We are already on our way, and building on current policies and trends that are providing Californians with more mobility options, more efficient vehicles, and a diverse set of cleaner fuels – we can meet this target, strengthen and grow our economy, and improve public health in our communities.*

## Benefits from Cutting Petroleum Use in Half by 2030

### Less Pollution

- In California, the production, refining, and use of petroleum accounts for almost half of greenhouse gas emissions, 80 percent of smog-forming pollution, and over 95 percent of cancer-causing diesel particulate matter

### Stronger Economy

- Oil dependence costs the U.S. an estimated \$300-500 billion annually (\$33-55 billion in California)
- Reducing energy use and improving vehicle efficiency cuts costs and improves economic productivity and competitiveness
- A diverse mix of domestic and local fuel supplies stabilizes energy prices, improves economic resilience, and creates new investments, businesses, and jobs

### Meet Health Standards and Climate Change Goals

- Studies show 45-55% petroleum reduction in 2030 sets California on path to meet its 2050 climate change goals
- Meeting federal health-based air quality standards likely requires additional petroleum reductions

## How we get there

### Already on Our Way

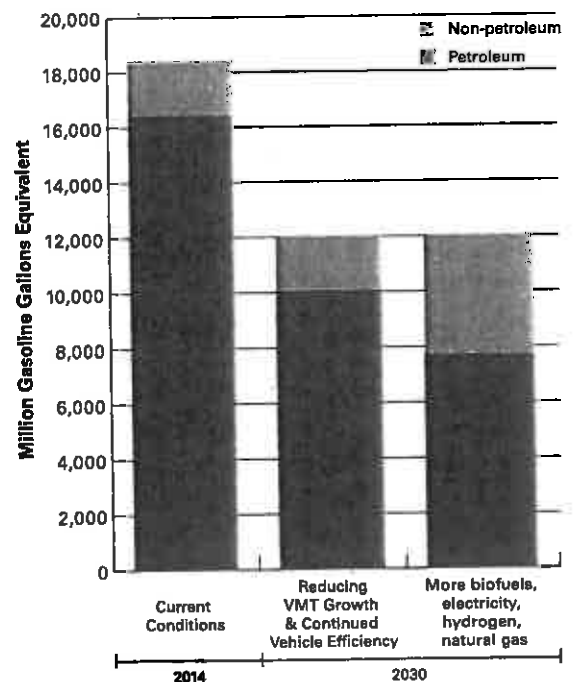
- Existing policies will reduce petroleum use in cars and trucks by more than 20% in 2030
- Planned activities over next two years can achieve significant additional petroleum reductions

### Build on California's Climate Change and Air Quality Framework

- Building on existing efforts, California can cut petroleum use from cars and trucks in half by 2030:
  - Build high-speed rail and continue supporting community planning to reduce vehicle miles travelled
  - Continue current levels of light-duty and heavy-duty vehicle efficiency improvements
  - Strengthen the Low Carbon Fuel Standard to continue reducing fuel carbon intensity
  - Continue providing strong market support for zero emission vehicles and renewable fuel production through carbon pricing and other incentives

### Sample path to 50% petroleum reduction in 2030

An approach to 50 percent petroleum reduction could include: Reducing growth in vehicle-miles travelled to 4%; increasing on-road fuel efficiency of cars to 35 mpg and heavy-duty trucks to about 7 mpg; and at least doubling use of alternative fuels like biofuels, electricity, hydrogen, and renewable natural gas. (ARB analysis)  
See graph at right.





# CALIFORNIA'S 2030 CLIMATE COMMITMENT RENEWABLE RESOURCES FOR HALF OF THE STATE'S ELECTRICITY BY 2030

To meet our climate change goals, we must derive 50 percent of the state's electricity from renewable resources by 2030. We are already well on our way as the state currently uses renewable resources for about 25 percent of its electricity use and is on a trajectory to use 33 percent by 2020. California is a leader in reducing greenhouse gases from electricity generation while maintaining an affordable and reliable electricity system.

## BENEFITS FROM RENEWABLES FOR HALF OF ELECTRICITY USE BY 2030

Renewables have created thousands of jobs, reduced harmful air pollutants, lowered carbon pollution, and led to greater diversity and resilience in our energy supply.

### Meet Climate Change Goals and Health Standards

- » Increasing renewable resources to 50 percent of the state's electricity consumption by 2030 sets California on path to meet its 2050 climate change goals
- » Using renewable resources could help reduce emissions from the transportation sector as increasing numbers of Californians drive electric vehicles, as well as from electricity use in the residential, commercial, and industrial sectors

## HOW WE GET THERE

### Already on Our Way

- » Existing policies will increase renewable-based electricity use to 33 percent by 2020
- » California has more than doubled renewable capacity installed in the last four years (adding over 11,000 megawatts) and has more than 21,000 megawatts online, which includes 2,300 megawatts on 245,000 homes, businesses, and schools. The graph shows renewable energy procured for California from 1983–2013 by resource type and the steep increase in recent years.
- » Another 11,400 MW of renewable energy projects in California have received environmental permits for development
- » Recent costs for renewables – even without subsidies – are approaching levels competitive with new natural gas plants
- » California has achieved this level of renewable development and maintained the reliability of the electricity grid by developing the capability to integrate the current levels of weather-dependent generation (wind and solar). Moving to 50 percent renewable energy could make balancing electricity

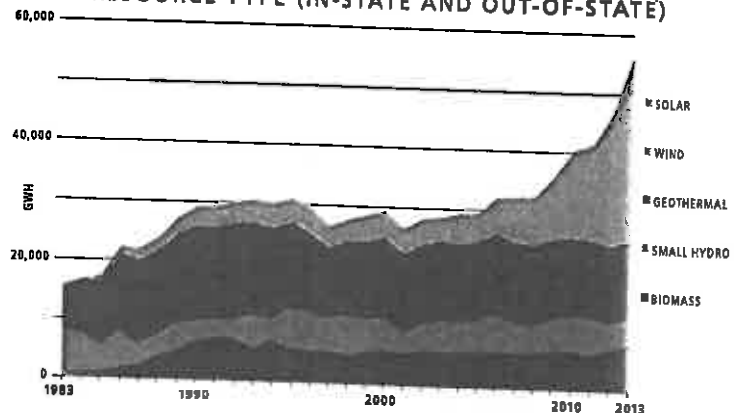
demand and generation increasingly challenging at some times during the day and year. Therefore, additional tools will be needed to maintain reliability including: charging zero emission vehicles at times of high renewable production, balancing supply and demand over broad geographic areas by multistate agreements (such as the Energy Imbalance Market), increasing flexibility in the generating fleet, deploying emerging storage technologies and programs that reward customers for shifting demand, and building a smarter grid.

### Build on California's Climate Change Framework

A 50 percent renewables target can be reached in several ways, including:

- » A new utility procurement requirement that focuses on optimizing clean energy technologies, efficiency, and demand management programs according to costs and system benefits.
- » A new procurement requirement to increase renewables beyond 33 percent, including allowing for rooftop solar and better coordination with Western states and Baja California to maximize renewable energy production and better balance production with demand.
- » A clean energy standard requiring reductions in greenhouse gas emissions of electricity sold in California based upon the loading order.

CALIFORNIA RENEWABLE ENERGY GENERATION BY RESOURCE TYPE (IN-STATE AND OUT-OF-STATE)



# CALIFORNIA'S 2030 CLIMATE COMMITMENT DOUBLE ENERGY SAVINGS IN EXISTING BUILDINGS & DEVELOP CLEANER HEATING FUELS BY 2030

To achieve our climate change goals over the next 15 years, we must double the planned level of savings from energy efficiency improvements in existing buildings; and develop cleaner heating fuels. Current policies and actions have improved energy service reliability and saved Californians money on their energy bills. Building on and expanding these efforts, we can meet carbon targets, maintain energy service affordability, upgrade our homes and businesses, and transition to cleaner heating fuels.

## BENEFITS

### Energy Cost Reductions and Improved Comfort

» Efficient buildings are affordable to operate, quiet, comfortable, safe, highly functional, and more valuable.

### Meet Air Quality and Climate Change Goals

» Reducing energy use helps minimize the need to generate electricity from fossil fuel-fired power plants, avoiding associated air pollution and greenhouse gas emissions.

» Cleaner heating fuels such as low-carbon gases and electricity from renewable resources can reduce local air pollution.

### Enhance Energy Service Reliability

» Energy efficiency strengthens reliability by diversifying the mix of resources to meet our energy needs.

» Energy efficiency reduces the burden on the electric system, improving its operations and flexibility.

## HOW WE GET THERE

### Already on Our Way

» Building and Appliance Energy Efficiency Standards, put in place over the last four decades, are saving Californians billions of dollars every year in avoided energy costs.

» California ratepayers have invested consistently in energy efficiency programs. These programs provided over \$2 billion in net benefits over the past 9 years.

» California's energy efficiency research and development investments are fostering new technologies and ideas to further improve energy performance of existing buildings and advance cleaner heating technologies.



### Building on California's Climate Change & Energy Policy Framework

» **Government Leadership.** Achieve dramatically greater performance levels in publicly-owned buildings; push rigorous code compliance; streamline permitting systems and use data to drive community energy planning.

» **Simpler Access to Useful Information.** Knowledge drives modern markets. Building benchmarking and other energy assessments provide targeted knowledge to enable and motivate efficiency improvements. Straightforward access to relevant data is needed to target the best opportunities.

» **Innovative Business Solutions.** Enable widespread delivery of dependable savings from routine upgrade projects.

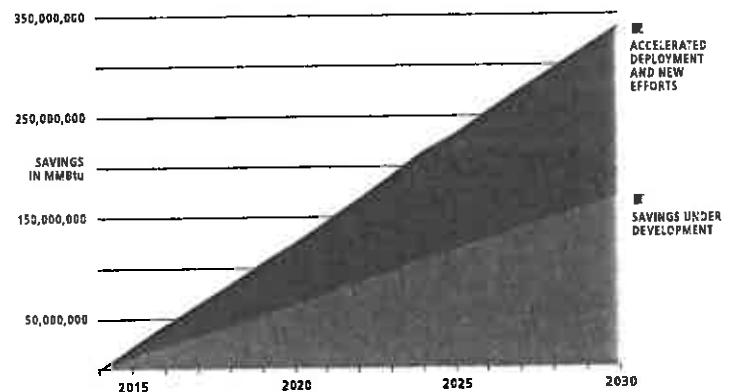
» **Financing.** Pervasive access to affordable, innovative financing that matches payments to savings timeframes.

» **Utility Procurement.** Treat efficiency as a clean distributed energy resource for which utilities contract in a fashion analogous to large-scale generation.

» **Technical Innovation.** Increased development and commercialization of promising technologies and practices for lighting, cooling, space and water heating, and plug-loads.

» **Workforce Training.** Bolster the workforce through training in energy efficiency assessment, installation and sales.

DOUBLING THE 2014-2030  
ENERGY SAVINGS TRAJECTORY





## **Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios**

April 6, 2015

### **Introduction**

California statute requires a reduction in greenhouse gas (GHG) emissions to 1990 levels by 2020, with the further goal of reducing emissions 80% below 1990 levels by the year 2050.<sup>1</sup> Recently, Governor Brown stated his intention for the State to adopt a 2030 GHG emission target to inform policy setting and program development.<sup>2</sup> To support setting that target, several state agencies<sup>3</sup> and the California Independent System Operator (CAISO) engaged Energy + Environmental Economics (E3) to evaluate the feasibility and cost of a range of greenhouse gas reduction scenarios in California.

### **Modeling Tool**

E3 conducted the analysis, with support from Lawrence Berkeley National Laboratory (LBNL), using the E3 California PATHWAYS model.<sup>4</sup> Enhanced specifically for this study, the model features detailed representations of the buildings, industry, transportation, and electricity sectors—including hourly electricity supply and demand. The stocks and replacement of buildings, vehicles, and appliances are modeled explicitly. Also represented, but with less detail, are non-energy GHG emissions, energy demand from the water sector and the agriculture sector. The model can represent a wide range of technologies and practices that may contribute to reducing GHG emissions, and incorporates interactions among sectors and key drivers of cost.

### **Scenarios Examined**

With input from the agencies, E3 developed and evaluated scenarios of potential paths for reducing GHG emissions in California. The scenarios explore the potential pace at which emission reductions can be achieved as well as the mix of technologies and practices used to reduce GHG emissions 80% by 2050. The scenarios bracket a straight line emission reduction trajectory between today's GHG levels and the 2050 goal. Sensitivity cases examine the implications of policy choices and exogenous events,

---

<sup>1</sup> The Global Warming Solutions Act, California Assembly Bill 32 (AB32), 2006.

<sup>2</sup> United Nations Climate Summit, New York, NY, September 2014.

<sup>3</sup> The California Air Resources Board, California Energy Commission and the California Public Utilities Commission.

<sup>4</sup> An earlier version of the E3 California PATHWAYS model was summarized in: Williams, J.H. et al., "The Technology Path to Deep Greenhouse Gas Emissions Cuts by 2050: The Pivotal Role of Electricity," *Science*, Volume 335, January 6, 2012.

such as low gasoline and natural gas prices or limits on the availability of sustainable biofuels, on the technical feasibility and cost of reducing emissions. The core scenarios are described in Table 1 below.

### Greenhouse Gas Emission Reductions

The scenarios evaluated result in a 26% to 38% reduction in greenhouse gases by 2030 relative to 1990 levels, as shown in Figure 1 below.<sup>5</sup> These scenarios result in 2025 proportional emission reductions that are similar to the recently-announced Obama administration goal of reducing U.S. net GHG emissions 26% to 28% by 2025, relative to 2005 levels, see Figure 2 below. On a *per capita* basis GHG emissions are much lower in California than the U.S. in both 2005 and 2025.

All scenarios incorporate energy efficiency and low-carbon technology and infrastructure, including:<sup>6</sup>

- **Energy efficiency:** double the amount of energy efficiency achieved in buildings and industry, relative to current policy, by 2030.
- **Low-carbon electricity:** 50% to 60% of electricity sales are supplied with renewable electricity by 2030, enabled by implementation of renewable integration solutions:
  - a relatively diverse renewable portfolio of wind and solar across geographies;
  - increased imports and exports of power across the state's transmission interties;
  - an increase in the flexibility and efficiency of natural gas generation and a phasing out of non-dispatchable fossil resources;
  - an increase in responsive loads including flexible loads in buildings and industry and smart charging of electric vehicles; and
  - either flexible production of low-carbon fuels from electricity or an increase in long-duration energy storage.
- **Electric water heating and space conditioning or biogas in buildings:** Over 50% of new sales of residential water heaters and HVAC systems for buildings are high efficiency electric heat pumps by 2030 **OR** over 50% of natural gas demand is supplied with biogas by 2030.
- **Zero emission and hybrid vehicles:** A rapid increase in near-zero and zero-emissions vehicles (ZEVs) by 2030; 6-7 million ZEVs and plug-in hybrid vehicles (PHEVs) on the road in 2030 in the Straight line scenario; the full range across all scenarios is 3 to 8 million ZEVs and PHEVs in 2030.
- **Biofuels:** A significant increase in the use of sustainable biofuels, with a large share likely to be imported from out of state. Biomass provides liquid transportation fuels (4 billion gallons of renewable diesel or gasoline in 2030) or biogas (over 50% of natural gas demand is supplied with biogas by 2030).
- **Reductions in other GHGs:** A significant reduction in high global warming potential gases including methane and F-gases. The base scenarios assume no net emissions from forests and working lands.

<sup>5</sup> This is equivalent to a 33% to 43% reduction in emissions by 2030 relative to 2005 greenhouse gas levels.

<sup>6</sup> These scenarios should be considered indicative corner cases. The policy mechanisms to achieve these transformations are not evaluated in this study, nor are all possible combinations of low-carbon technologies.

All scenarios rely on existing technologies and assume a continuation of current lifestyles and economic growth. The pace of emission reductions requires that key technologies are commercialized, produced at scale, and achieve broad market adoption in the next 10 - 15 years.

### Costs

E3 also developed economic metrics to assess and compare the implications of different 2030 GHG targets for households, evaluating a range of potential future technology costs and fossil fuel prices. As shown in Figure 3, under base-case cost assumptions, the average household direct cost of the Straight Line scenario is found to be \$8 per month in 2030 (reported in 2012 year dollars), relative to current policy (Reference scenario). This estimate includes all direct effects including changes in the average household's cost of transportation fuel, electricity and natural gas bills as well as the incremental capital outlays on energy efficiency and low-carbon vehicles. If all commercial and industrial costs are assumed to be passed on to households, the average household cost impact is \$14 per month in 2030 relative to current policy.

In light of significant uncertainties in fossil fuel prices and low-carbon technology costs, a wide range of possible cost outcomes was evaluated. Under high fossil fuel prices (\$4.75 per gallon gasoline in 2030) and rapid technology cost reductions, the average direct household cost is found to be up to \$12 per month *lower* than the Reference scenario in 2030. Under low fossil fuel prices (below \$3 per gallon of gasoline in 2030), the average direct household cost is found to be up to \$18 per month higher than the Reference scenario.

### Conclusion

This study finds that successfully reducing California's greenhouse gas emissions requires significant progress on all of the following:

1. Increasing the achievement of energy efficiency in buildings and transportation;
2. Switching to lower carbon fuel sources in buildings and transportation;
3. Producing lower carbon electricity;
4. Producing lower carbon liquid or gaseous fuels; and
5. Reducing non-energy greenhouse gases.

These results are broadly consistent with other studies of low-carbon futures in the United States and the rest of the world.<sup>7</sup> In the long-run, actions from other states, the federal government, and the international community are needed in order to achieve the levels of carbon reductions evaluated in these scenarios, both in terms of creating markets and economies of scale for low-carbon technologies, and in terms of mitigating the risks of global climate change.

---

<sup>7</sup> See for example, Sustainable Development Solutions Network's "Pathways to Deep Decarbonization" (2014): <http://unsdsn.org/what-we-do/deep-decarbonization-pathways/>; the United Kingdom's "2050 Pathways Analysis" (2010): [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/68816/216-2050-pathways-analysis-report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/68816/216-2050-pathways-analysis-report.pdf); The European Union's, "Roadmap for moving to a low-carbon economy in 2050," (2011): [http://ec.europa.eu/clima/policies/roadmap/documentation\\_en.htm](http://ec.europa.eu/clima/policies/roadmap/documentation_en.htm); and California Council on Science and Technology, "California's Energy Future – the View to 2050," (2011).

Table 1. Description of scenarios evaluated in California PATHWAYS analysis

Comparison Scenario	
1. Reference	Current GHG policies are continued through 2020 only
Timing Scenarios (achieve 80% below 1990 by 2050)	
2. Straight Line	Suite of low-carbon technologies including energy efficiency, building electrification, renewable electricity, zero emission vehicles, and renewable liquid fuels
3. Early Deployment (Faster)	Same technology focus as the Straight Line Scenario, but with faster deployment of renewable electricity and near-term measures with air quality benefits, including zero emission vehicles and electric heat pumps
4. Slower Commercial Adoption (Slower)	Same technology focus as the Straight Line Scenario, but with delayed implementation of higher-cost measures, primarily zero emission vehicles and electric heat pumps in the commercial sector; adoption is accelerated post-2030 to hit 2050 goal
Alternate Technology Scenarios (achieve 80% below 1990 by 2050)	
5. Low Carbon Gas	Focus on decarbonized pipeline gas, no renewable liquid fuels and no building electrification
6. Distributed Energy	Focus on distributed PV and grid storage
7. CCS	Phase-in of natural gas carbon capture and sequestration (CCS) in electricity generation and hydrogen production post-2030
8. High BEV	Focus on battery electric vehicles instead of fuel cell vehicles
All scenarios rely on existing technologies and assume a continuation of current lifestyles and economic growth. The pace of emission reductions requires that key technologies are commercialized, produced at scale, and achieve broad market adoption in the next 10 - 15 years.	

Figure 1. 2030 California greenhouse gas ranges were evaluated in the E3 PATHWAYS scenarios (slower commercial adoption ("slower"), straight line, and early deployment ("faster")), all of which are consistent with meeting California's 2050 greenhouse gas reduction goals.

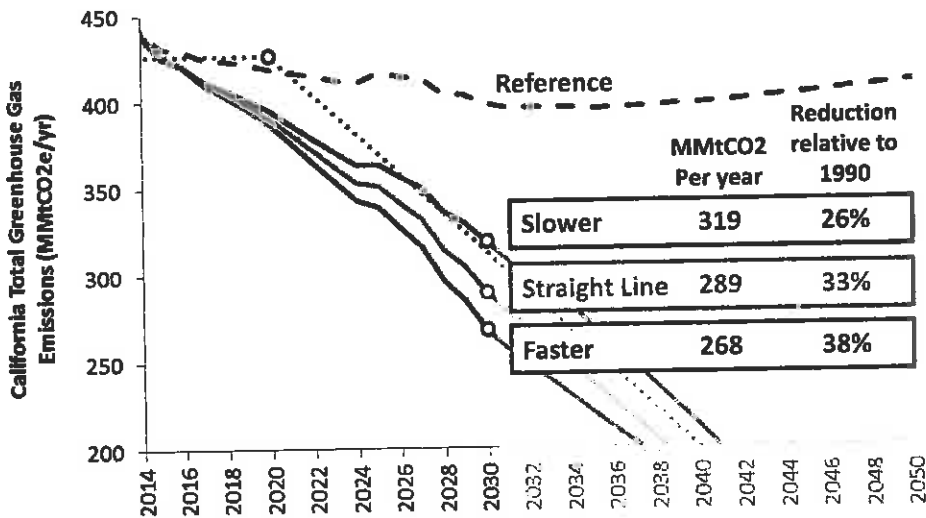


Figure 2. 2025 California greenhouse gas emissions in the low-carbon scenarios are similar to the Obama administration 2025 goal for the U.S. on a percentage reduction basis, but lower on a CO2 per capita basis.

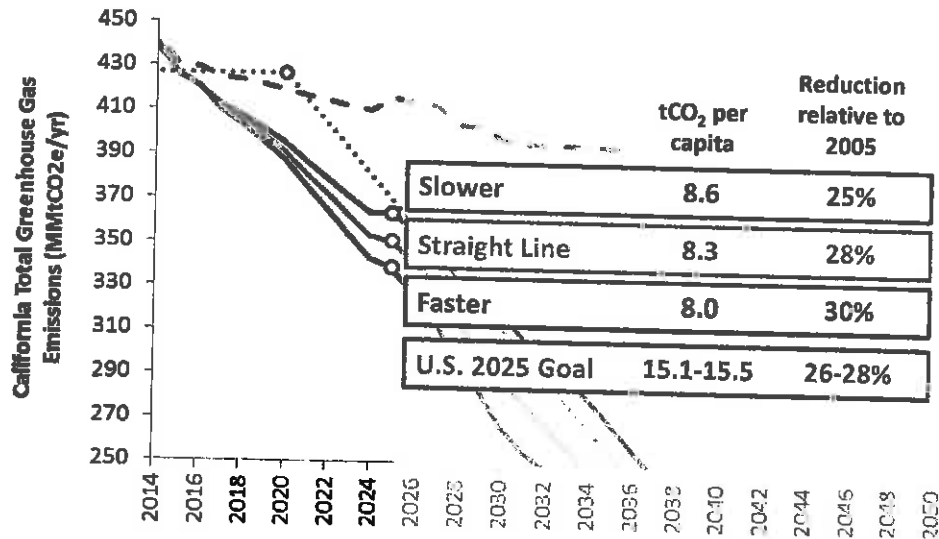
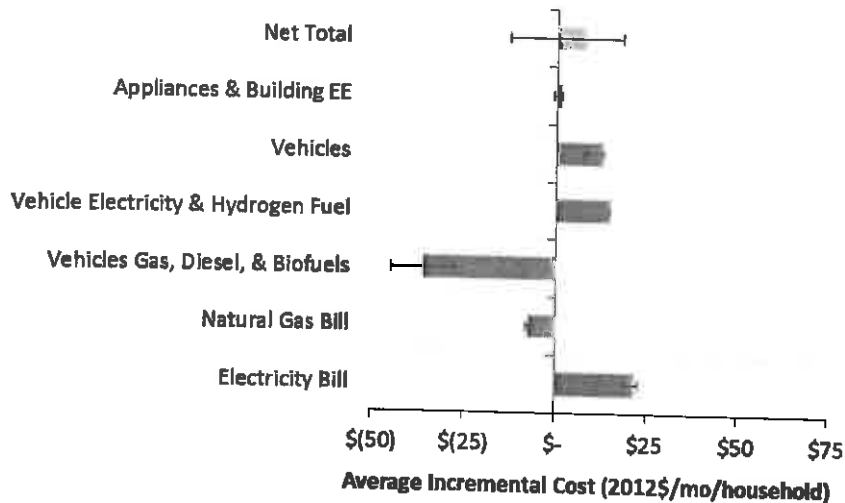


Figure 3. 2030 household direct costs – Straight Line scenario. The average household sees significant savings in gasoline/diesel and natural gas costs, offset by increases in the electric bill, car payments and cost of ZEV fuel. Net total cost impact in 2030 is \$8 per month per household. Ranges reflect cost sensitivity cases.







## Instruction To The Generator ID Tool

The purpose of this tool is to help you identify which businesses in your jurisdiction meet the threshold for mandatory commercial organics recycling. This tool provides an estimate of how many employees it takes to generate 8 cubic yards or 4 cubic yards of organics/week for different business types, and explains how you can obtain specific business information for your jurisdiction to see which meet that threshold.

1. The following information is provided as an explanation of how the table was developed. You do not need to read or fully understand it. It is provided for those that would like to know more, or those that would like to use their own data to develop a localized generator ID tool. If you simply want to learn how to obtain your local business information and how to apply that to the final table, please skip to part 2 on page 3.

- a. **Background definitions**

- i. **Business Groups** – different business types generate different amounts of organics – compare a restaurant to a car dealership. CalRecycle has developed a list of business groups to use for waste characterization studies, to gather data on waste patterns for each group. Businesses are classified based on the North American Industry Classification System (**NAICS**) and grouped according to similarities in waste streams. For example, restaurants are in one group – they generate waste differently from most other types of businesses. Finance, insurance, and legal businesses are grouped together because they are office-type businesses and generate waste in similar ways.
    - ii. **Waste Composition Data** – this provides information on the types and amounts of waste a business generates, such as the amount of food waste or office paper. For example, the waste generated by retail food stores contains about 52% cardboard and about 30% food. For businesses in the Durable Wholesale and Trucking category, the waste generated contains about 42% ferrous metal and about 21% cardboard. Data is collected by taking samples of waste and recyclables at business sites and sorting them into various material types, and weighing each type. Data from many sites is aggregated to get the profile for the business group.
    - iii. **Waste Generation Rate Data** – this estimates the overall amount of waste generated by a business type, **on a per-employee basis**. For example, food stores generate about 195 pounds of total waste per employee per week (including diversion). Data is collected by measuring total amounts of disposal and recycling set out by businesses. Again, data from many sites is aggregated to get the profile for the business group. Note: for the 2014 Waste Characterization Study, waste compositions and generation rates for each business group were developed using number of employees based on Full-Time Equivalent (FTE) employees. This is believed to be a more consistent basis for predicting a business's waste pattern. However, for ease of use, generation rates using the basis of total employment (number of full and part time employees) are used in this tool.
    - iv. **Organic Material Types** – these include food waste, yard waste, and most types of wood waste. These material types are defined for the waste characterization study (see Appendix B).

## Instruction To The Generator ID Tool

- v. Conversion Factors (Density Data) – this data converts materials from pounds to cubic yards (see Appendix C).

b. **Calculating amounts of organics generated**

The number of employees needed to produce 8 cubic yards at a type of business can be calculated by using three steps. First, you need to find the percent of organic materials in the waste stream at that type of business. Second, you need the total amount of waste generated (on a per-employee basis) for the business type. Last, with some rearranging, you can solve for the number of employees that produce the required amount of organic material per week at that business type.

**Example:** Waste from food stores contains 30% food, 1% yard waste (leaves and grass), and 4% wood waste. Food stores generate 195 pounds of total waste per employee per week (including diversion). (CalRecycle 2014 study – see below).

Food waste

195 pounds total waste X 30% food = 59 pounds of food waste per employee per week

Food weighs on average 500 pounds per cubic yard

59 pounds ÷ 500 pounds per cubic yard = 0.118 cubic yards of food waste per employee per week

Yard waste (Leaves and Grass)

195 pounds total waste X 1% yard waste = 2 pounds of yard waste per employee per week

Leaves and Grass weighs on average 250 pounds per cubic yard

2 pounds ÷ 250 pounds per cubic yard = 0.008 cubic yards of yard waste per employee per week

Wood Waste

195 pounds total waste X 4% wood waste = 8 pounds of lumber per employee per week

Lumber weighs on average 500 pounds per cubic yard also

8 pounds ÷ 500 pounds per cubic yard = 0.016 cubic yards of wood waste per employee per week

Total organics generated

0.118 + 0.008 + 0.016 = 0.14 cubic yards (rounded) of total organics per employee per week

8 cubic yards per week ÷ 0.14 cubic yards per employee per week = 57 employees needed to generate 8 cubic yards of total organics per week.

Total waste generated includes materials both disposed and diverted. All data is from CalRecycle report *2014 Generator Based Characterization of Commercial Sector Disposal and Diversion in California*, unless otherwise noted.

This tool provides the above calculations for each business type in a table format using state-wide averages. If your jurisdiction's businesses feel they generate exceptionally different amounts of organic waste, you could go through this process after gathering waste characterization study data for your jurisdiction.

## Instruction To The Generator ID Tool

### 2. Identifying which businesses in your jurisdiction meet the threshold by business type

#### a. Obtaining Data on Your Local Businesses – Sources of Information

- i. Local business license or other local database that you might have that contains employment data for each business in your jurisdiction, including self-reporting from businesses
- ii. California Employment Development Department (EDD) Labor Market Information Division (LMID) – use the “Employer by Geographic Area” to get lists of businesses by jurisdiction, according to employment size ranges (See Appendix A for help on navigating this site).

<http://www.labormarketinfo.edd.ca.gov/aspdotnet/databrowsing/EmpGeog.aspx?menuChoice=emp&searchType=Geography>

- iii. Private Sources of Business Data – ReferenceUSAgov, Dun & Bradstreet, others

#### b. Match the businesses in your jurisdiction to the business types provided

- i. Using one of the methods above, create a list of businesses in your jurisdiction, identify the type of business, and identify the number of employees.
- ii. The Generator ID Tool includes a table of business types, their associated 3-digit NAICS code, and the likely number of employees for that type to meet the MORE threshold. Using this table and your knowledge of the business gathered in part i above, match your businesses with the appropriate 3-digit NAICS code in the table.
- iii. Compare the number of employees at your jurisdiction’s businesses with the required number to produce the threshold amount of organics, and flag those that exceed the required number. This is your list of businesses that must start organics recycling.

**Example:**

Business name	# of employees	Business Type (using the 3 digit NAICS code)	# of employees needed to produce 8 cu yd of organics per week by business type
Store A	60	Food store	57
Store B	60	Restaurant	102
Store C	232	Retail, clothing store	197



This data comes from the  
Generator ID Tool (calculated in  
part 1)

You identify 3 businesses in your jurisdiction, and find that they have the shown number of employees. You find that the 3 businesses are a food store, a restaurant, and a retail clothing store. When you look up those business types from the CalRecycle table, you find that the required number of employees for each of those business types is 57, 102, and 197, respectively. Because your food store, “Store A”, has 60 employees, they likely produce more than 8 cubic yards of organics per week and meet the threshold for needing an organics recycling program. Likewise, “Store C” has more employees than 197 (they have 232), so they must start an organics recycling program. In this example, “Store B” likely does not produce the required 8 cubic yards of organic material, however, you may still want to contact them to see if they meet the threshold just in case.

## Instruction To The Generator ID Tool

The table you will use to identify the estimated number of employees to generate organic waste at or above the threshold for each business type is provided below.

Business Type by Group	Employees to reach 8 CY organics per week	Employees to reach 4 CY organics per week
<b>1 Arts, Entertainment &amp; Recreation</b> Gambling, Recreation, Amusement Museums, Historical Sites & Similar Performing Arts & Spectator Sports	74	37
<b>2 Durable Wholesale &amp; Trucking</b> Couriers and Messengers Durable Goods Wholesalers Postal Service Truck Transportation Warehousing and Storage	185	93
<b>3 Education</b> Educational Services	570	285
<b>4 Hotels/Lodging</b> Accommodation	140	70
<b>5 Manufacturing - Electronic Equipment</b> Computer and Electronic Products Electrical Equipment and Appliances	593	296
<b>6 Manufacturing - Food; &amp; Nondurable Wholesale</b> Beverage and Tobacco Products Food Manufacturing Nondurable Goods Wholesalers	92	46
<b>7 Manufacturing - All Other</b> Apparel Manufacturing Chemical Products Fabricated Metal Products Furniture and Related Products Leather and Allied Products Machinery Misc Manufacturing Nonmetallic Mineral Products Paper Products Petroleum and Coal Products Plastics and Rubber Products Primary Metal Mfg Printing and Related Support Activities Publishing Industries, except Internet Textile Mills Textile Product Mills Transportation Equipment Wood Products	705	352
<b>8 Medical/Health</b> Ambulatory Health Care Services	573	287

## Instruction To The Generator ID Tool

Hospitals Nursing and Residential Care Facilities		
<b>9 Public Administration</b>	<b>1116</b>	<b>558</b>
Public Administration		
<b>10 Restaurants</b>	<b>102</b>	<b>51</b>
Food Services and Drinking Places		
<b>11 Retail Trade - Food &amp; Beverage Stores</b>	<b>57</b>	<b>29</b>
Food and Beverage Stores		
<b>12 Retail Trade - All Other</b>	<b>197</b>	<b>99</b>
Clothing and Clothing Accessories		
Electronics and Appliance Stores		
Furniture and Home Furnishings		
Gasoline Stations		
General Merchandise Stores		
Health and Personal Care Stores		
Misc Store Retailers		
Motor Vehicle and Parts Dealers		
Nonstore Retailers		
Sporting Goods, Hobby, Books, Music		
<b>13 Services - Management, Administrative, Support, Social</b>	<b>85</b>	<b>42</b>
Administrative and Support Services		
Electronic Markets, Agents, Brokers		
Management of Companies and Enterprises		
Religious, Civic, Professional & Similar		
Social Assistance		
<b>14 Services - Professional, Technical, Financial</b>	<b>153</b>	<b>77</b>
Broadcasting, except Internet		
Credit Intermediation & Related		
Data Processing, Hosting and Related		
Financial Investment & Related		
Funds, Trusts, Other Financial Vehicles		
Insurance Carriers & Related Activity		
Lessors of Nonfinancial Intangible Assets		
Monetary Authorities - Central Bank		
Other Information Services		
Professional and Technical Services		
Real Estate		
Rental & Leasing Services		
Telecommunications		
<b>15 Services - Repair and Personal</b>	<b>275</b>	<b>138</b>
Personal and Laundry Services		
Repair and Maintenance		
<b>16 Not Elsewhere Classified</b>	<b>118</b>	<b>59</b>
Agric and Forestry Support Activities		
Air Transportation		
Animal Production		
Building Materials and Garden Supplies		

## Instruction To The Generator ID Tool

Crop Production  
Fishing, Hunting and Trapping  
Forestry and Logging  
Mining, except Oil & Gas  
Motion Picture and Sound Recording  
Oil & Gas Extraction  
Pipeline Transportation  
Rail Transportation  
Scenic and Sightseeing Transportation  
Support Activities for Mining  
Support Activities for Transportation  
Transit & Ground Passenger Transport  
Utilities  
Waste Mgmt and Remediation Services  
Water Transportation

The above table is also available as a sortable Excel document from CalRecycle's website at:  
<http://www.calrecycle.ca.gov/Recycle/Commercial/Organics/LocalGovt.htm>

## Instruction To The Generator ID Tool

### Appendix A

This appendix is provided to guide you through how to use the EDD website to look up how many employees are at each of your businesses in your jurisdiction. You can type out the link provided on page 3, or follow the steps below.

1. Visit Employer by Geographic Area by clicking the link.
2. Select your county for your jurisdiction.
3. Decide which industry sector you wish to start with, or identify the industry sector of the specific business you have in mind. For example, your list of businesses may start with restaurants. In that case, select Sector 72 "Accommodation and Food Services". Another approach may be that you wish to look up "John's Grocery Store" in your jurisdiction. In this case, you would select Sector 44 "Retail Trade". You might want to select each sector to see which groups fall into each.
4. Select the NAICS industry group you are searching for. Continuing the example above, if you were searching for restaurants, you would select Group 7225 "Restaurants". If you were searching for "John's Grocery Store" you would now select Group 4451 "Grocery Stores".
5. After clicking "View Employer List" when you have selected the appropriate Group for your search, you will see a list of businesses in your geographic area that falls under that Group. You can click on the up and down arrows next to Name, City, or Industry to sort the list by those categories, if you wish.
6. Click the business that you want, and you will see some specific information about that business. "Employer Size Class" should be the second-to-last category, and will tell you about how many employees work at that business. You should note the upper range (larger) number. This is because when you are matching these businesses to the CalRecycle table, if the required number of employees to generate 8 cubic yards of organic waste is somewhere in the middle of the range, that business meets the threshold for mandatory commercial organics recycling. By noting the larger number on your list, you will guarantee that you are identifying the required businesses.
  - a. Example: You looked up "Imaginary Grocery Store" in your jurisdiction, and you found the EDD database listed the number of employees as being 20-49 employees for this restaurant. Referring to the CalRecycle table, you see that the required number of employees for the "food store" business type, which includes grocery stores, is 36 or more employees. You should mark "Imaginary Grocery Store" as meeting the threshold for mandatory commercial organics recycling.
7. You can continue your search by selecting "New Search", or go "Back" to look up more businesses within the Group you have identified.

## Instruction To The Generator ID Tool

### Appendix B – Organic Material Types List and Definitions

#### From CalRecycle's 2014 Waste Characterization Study

**Food** means food material resulting from the processing, storage, preparation, cooking, handling, or consumption of food. This type includes material from industrial, commercial, or residential sources. Examples include discarded meat scraps, dairy products, egg shells, fruit or vegetable peels, and other food items from homes, stores, and restaurants. This type includes grape pomace and other processed residues or material from canneries, wineries, or other industrial sources.

**Leaves and Grass** means plant material, except woody material, from any public or private landscape. Examples include leaves, grass clippings, plants, and seaweed. This type does not include woody material or material from agricultural sources.

**Prunings and Trimmings** means woody plant material up to 4 inches in diameter from any public or private landscape. Examples include prunings, shrubs, and small branches with branch diameters that do not exceed 4 inches. This type does not include stumps, tree trunks, branches exceeding 4 inches in diameter, or material from agricultural sources.

**Branches and Stumps** means woody plant material, branches, and stumps that exceed 4 inches in diameter, from any public or private landscape.

**Clean Dimensional Lumber** means unpainted new or demolition dimensional lumber. Includes materials such as 2 x 4s, 2 x 6s, 2 x 12s, and other residual materials from framing and related construction activities. May contain nails or other trace contaminants.

**Clean Engineered Wood** means unpainted new or demolition scrap from sheeted goods such as plywood, particleboard, wafer board, oriented strand board, and other residual materials used for sheathing and related construction uses. May contain nails or other trace contaminants.

**Clean Pallets and Crates** means unpainted wood pallets, crates, and packaging made of lumber/engineered wood.

Material types such as compostable paper and other wood waste that were sorted in the study were not included since those types contain materials and items not included in the statutory definition of "organic waste".



## Instruction To The Generator ID Tool

### Appendix C – Organic Material Types Bulk Density Values

<b>Material Type</b>	<b>Bulk Density, lb/cubic yard</b>
Food	500
Leaves and Grass	250
Prunings and Trimmings	300
Branches and Stumps	350
Clean Dimensional Lumber	500
Clean Engineered Wood	500
Clean Pallets & Crates	500

Source: based on internet research, data from a California field study, and the knowledge and expertise of CalRecycle staff to determine average density values.



**Mary Pitto**

**From:** CalRecycle's Materials Management & Local Assistance Division  
[LAMD@CalRecycle.ca.gov]  
**Sent:** Friday, October 02, 2015 4:04 PM  
**To:** Mary Pitto  
**Subject:** Mandatory Commercial Organics Recycling Education and Outreach to Industry

How is CalRecycle working to get the word out to businesses regarding AB 1826 -- Mandatory Commercial Organics Recycling? Well....starting in November and December of last year, we reached out to various industry associations and organizations to ensure that we had the proper contact person for follow-up regarding related AB 1826 education and outreach. Since then, we have coordinating with valuable industry partners to distribute Mandatory Commercial Organics Recycling related information to their members, and to develop a communication protocol for related questions. Below is a sample of the associations and organizations that have already prepared AB 1826 education and outreach info for member news alerts, bulletins, and web-pages. Additionally, we continue to inform state agencies about the law and how to comply. As an example, the related letter distributed to state agencies is available at <http://www.calrecycle.ca.gov/stateagency/WMReport/AnnualLetter.htm>. We are also working with a number of school-related associations including the Association of California School Administrators, the California School Boards Association and the California Association of School Business Officials.

- ?CalChamber -- <http://calchamberalert.com/2015/10/02/commercial-organics-recycling-mandate-to-take-effect-april-1-2016/>
- California Business Property Association -- <http://cbpa.com/commercial-organics-recycling-law>
- California Restaurant Association -- <http://www.calrest.org/newsroom/new-commercial-organics-recycling-law-takes-effect-soon>
- California Apartment Association -- <http://caanet.org/caarecycling/>
- California League of Food Processors -- <http://www.naylornetwork.com/cfp-nwl/articles/index.asp?aid=332983&issueID=40389>
- ??California Manufacturers & Technology Association? -- [http://cmta.net/page/legupdate-article.php?legupdate\\_id=922001](http://cmta.net/page/legupdate-article.php?legupdate_id=922001)

For more information go to the [Mandatory Commercial Organics Recycling home page](#). [Unsubscribe from this list](#).





Search

Helpline Issues Courts Commentary International Events Contact

# Commercial Organics Recycling Mandate to Take Effect April 1, 2016

OCTOBER 2, 2015 AMY MMAGU BUSINESS

A state law requiring businesses that generate a certain amount of waste per week to recycle their organic waste will take effect next spring.

The law, AB 1826 (Chesbro; D-North Coast; Chapter 727, Statutes of 2014) phases in new organic recycling requirements over several years, helping the state meet its goal of recycling 75% of its waste by 2020.

By January 1, 2016, according to the California Department of Resources Recycling and Recovery (CalRecycle), local jurisdictions across the state must have organic recycling options in place for businesses, including multifamily residential dwellings that consist of five or more units.

The jurisdictions also must conduct outreach and education to those businesses about organics recycling options, and monitor implementation.

## Who Must Comply

AB 1826 states that businesses and multifamily complexes must start recycling organic waste by the following dates:

- Generators of 8 or more cubic yards of organic waste per week: April 1, 2016.
- Generators of 4 or more cubic yards of organic waste per week: January 1, 2017.
- Generators of 4 or more cubic yards of solid waste per week: January 1, 2019.
- Generators of 2 or more cubic yards of solid waste per week, if statewide disposal of organic waste is not decreased by half: January 1, 2020.

## Types of Waste

AB 1826 requires that businesses arrange for recycling services for the following types of organic waste:

- food waste;
- green waste;
- landscape and pruning waste;
- nonhazardous wood waste; and
- food-soiled paper.

## CALCHAMBER SITES

- CalChamber
- Advocacy
- HRCalifornia
- CalChamber Store
- California Foundation for Commerce and Education



## DOWNLOADS

- Alert 28, October 2, 2015
- Alert 27, September 18, 2015
- Alert 26, September 4, 2015
- Alert 25, August 28, 2015
- Alert 24, August 21, 2015
- Status Report, September 18, 2015
- 2014 Vote Record, October 17
- Alert Archive

## CATEGORIES

- Bill Status Update (4)
- Budget (5)
- Business (11)
- Cal/OSHA Corner (3)
- CalChamber (46)
- Commentary (8)
- Compliance (23)
- Courts (13)
- Education (3)
- Elections (13)

Multifamily complexes of five units or more must arrange for recycling services for the same materials with the exception of food waste and food-soiled paper.

### How to Comply

Businesses can comply with the new requirements by taking one or any combination of the following actions, according to CalRecycle, provided that the action is in compliance with local ordinances and requirements:

- Source-separate organic waste from other waste and subscribe to an organic waste recycling service that specifically includes collection and recycling of organic waste.
- Recycle organic waste onsite, or self-haul for organics recycling.
- Subscribe to an organic waste recycling service that includes mixed-waste processing that specifically recycles organic waste.
- Sell or donate the generated organic waste.

### More Information

For more information on mandatory commercial organics recycling, visit CalRecycle's Web page, [www.calrecycle.ca.gov/recycle/commercial/organics/](http://www.calrecycle.ca.gov/recycle/commercial/organics/).

*Staff Contact: Amy Mmagu*

Education: CalChamber Increases Activity, Backs Several Big Wins, Stops Worst Bills

New IRS Resource Helps Employers Understand Health Care Law

### ORGANIC WASTE, RECYCLING



- Environmental (14)
- Events (31)
- Federal Update (5)
- International (37)
- Issues (18)
- Job Creator (21)
- Job Killer (33)
- Labor Law Corner (36)
- Lede Story (40)
- Legislation (25)
- Small Business Advocate (6)
- Special Report (6)
- Vote Record (3)
- Water (22)

### AUTHORS



**Allan Zaremborg**  
published 3 articles



**Amy Mmagu**  
published 7 articles



**Anthony Samson**  
published 19 articles



**Barbara Wilber**  
published 4 articles



**CalChamber**  
published 123 articles

**CalChamber Store**  
published 5 articles



HOME ABOUT GOVERNMENT MEMBERSHIP WEEKLY eUPDATE RESOURCES CALENDAR CONTACT

Established in 1972 · CBPA has over four decades of service to the commercial industrial retail real estate industry

## COMMERCIAL ORGANICS RECYCLING LAW

Posted: September 25, 2015 | Posted by CBPA | [No Comments](#)

With the passage of AB 1826, new organics recycling requirements will be phased in over several years and will help the state meet its goal of recycling 75 percent of its waste by 2020.

**AB 1826 (Chesbro, Chapter 727, Statutes of 2014)**, which was signed in October 2014, requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week.

Businesses, including public entities, are required to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. Organics recycling services often accept a wide variety of organic waste. The law requires that businesses arrange for recycling services for the following types of organic waste:

- food waste
- green waste
- landscape and pruning waste
- nonhazardous wood waste
- food-soiled paper

Multifamily complexes of five units or more must arrange for recycling services for the same material with the exception of food waste and food-soiled paper.

### Who Must Comply?

The new law states that businesses and multifamily complexes must start recycling organic waste by the following dates:

- Generators of 8 or more cubic yards of organic waste per week – April 1, 2016
- Generators of 4 or more cubic yards of organic waste per week – January 1, 2017
- Generators of 4 or more cubic yards of solid waste per week – January 1, 2019
- Generators of 2 or more cubic yards of solid waste per week, if statewide disposal of organic waste is not decreased by half – January 1, 2020

By January 1, 2016, all jurisdictions must have organic recycling options in place for businesses and multifamily complexes, and they must conduct outreach and education to those businesses about their organics recycling options. The jurisdictions must subsequently monitor implementation.

Please see CalRecycle's Mandatory Commercial Organics Recycling webpage by [clicking here](#) for more information, including examples of businesses that are recycling organics.

Filed Under: [Uncategorized](#)

Tagged With:

### CBPA Upcoming

November 5 - 6, 2015  
Strategic Issues Conference  
Lincoln, CA

### CBPA Affiliate Members



### CBPA Industry Champions



### Compliance Products From The California Chamber of Commerce

CalChamber is recognized as the leading provider of California-specific labor law compliance, training, and HR best practices tools. California Business Properties Association has partnered with CalChamber to give all of our members access to these products at a 10% discount.

Simply click on the CalBizCentral link below and your discount will be automatically applied at checkout.



California HR Compliance Products

### Weekly eUpdate Newsletter

Stay in the know and sign up to receive our weekly email newsletter!

### Read Similar Post on This Topic

- COMMERCIAL ORGANICS RECYCLING LAW
- COMMERCIAL RECYCLING MANDATE ON JULY 1, 2012
- MANDATORY COMMERCIAL RECYCLING MEETING
- MANDATORY COMMERCIAL RECYCLING MEETING
- GREEN ISSUES

### Recent eUpdate Articles

- [STRATEGIC ISSUES CONFERENCE](#)
- [TAX INITIATIVES PICKER GAME REOPEN](#)
- [NEW POLLING TESTS VARIOUS TAX INITIATIVES INCLUDING SPLIT ROLL](#)
- [ENERGY CODE COMPLIANCE TOOL UPDATED](#)
- [SIGNWETO WATCH](#)

### What Do You Think. Please Leave a Comment.

NAME	EMAIL	WEBSITE
COMMENT		

Submit Query

### eUpdate Articles By Category

- [Budget](#)
- [CARB](#)
- [CEQA](#)
- [Code](#)
- [Election Information](#)
- [Energy](#)
- [Events & Workshops](#)
- [Green Building](#)
- [Legislation Updates](#)
- [Resources](#)
- [Taxes](#)
- [Uncategorised](#)

There are no comments yet, please leave one.

- HOME
- ABOUT
- GOVERNMENT
- MEMBERSHIP
- WEEKLY eUPDATE
- RESOURCES
- CALENDAR
- CONTACT



**CONTACT CBPA**  
 1121 L Street, Suite 809  
 Sacramento, CA 95814  
 (916) 443-4876  
 (916) 443-0938 fax  
 © Copyright 2007-2009 California Business Properties Association (CBPA)

**ORGANIZATIONS**  
 International Council of Shopping Centers (ICSC)  
 Building Owners and Managers Association of California (BOMA California)  
 NAIOP of California, the Commercial Real Estate Development Association  
 Institute of Real Estate Management (IREM)  
 California Downtown Association (CDA)  
 Retail Industry Leaders Association (RILA)  
 California Association of Local Economic Development (CALED)  
 National Association of Real Estate Investment Trusts (NAREIT)  
 Association of Commercial Real Estate (ACRE)





For Immediate Release  
September 18, 2015  
Release #2015-21

Media Contact:  
Lance Klug (CalRecycle)

## Update: Guilty Plea from Recycling Fraud Ringleader. Two Await Sentencing in \$14 Million Fraud Scheme

SACRAMENTO--The Department of Resources Recycling and Recovery (CalRecycle) will receive \$1.3 million in restitution from the alleged ringleader of a recycling scheme involving more than 20 recycling centers in Southern California. Gonzalo Rodriguez is the fourth suspect to accept a plea deal from CalRecycle's enforcement partners in the California Department of Justice.

- Gonzalo Rodriguez will be sentenced Oct. 1 after pleading guilty to felony recycling fraud and grand theft with a white-collar enhancement. As part of the deal, Rodriguez will spend 14 months in custody, have 22 months supervised release, and pay CalRecycle \$1.3 million in restitution.
- Belen Gonzales will be sentenced Oct. 1 after pleading guilty to being an accessory (to a felony) after the fact. She was sentenced to time served (five months actual time) and no restitution.

Read the [August 2015 news release](#) regarding the sentencing of two other suspects in this case. The fifth suspect named in the [original indictment](#), 26-year-old Adriana Rodriguez of Sylmar, is still at large.

### Recycling Fraud Scheme Recap

- In September 2013, agents observe Rodriguez Recycling (Los Angeles) importing used beverage containers from Arizona.
- In April 2014, agents travel to Phoenix and see individuals load a tractor-trailer with empty beverage containers. Agents follow the truck to Bakersfield and witness the delivery to Sequoia Resources.
- S&S Recycling of Bakersfield, Ignacio Recycling of Lamont, and Gonzalez Recycling of Bakersfield claim California Redemption Value for the loads.
- Subsequent warrants reveal a loan and delivery scheme at Sequoia Resources.
- Agents uncover a large-scale fraud operation, organized by Gonzalo Rodriguez. The scheme spanned from 2012 to 2014 and resulted in \$14 million in fraudulent redemptions by Rodriguez and his family.
- CalRecycle terminates the program certifications of 20 recycling centers, and four others voluntarily decertify from the Beverage Container Recycling Program.
- The California Department of Justice indicts five individuals on criminal charges.

California's Beverage Container Recycling and Litter Reduction Act incentivizes recycling through a CRV fee that's paid by California consumers at the time of purchase and refunded upon return of the empty beverage containers. Since the fee is not paid on beverages purchased outside the state, those containers are not eligible for CRV redemption. The California Department of Justice investigates and prosecutes criminal cases on behalf of CalRecycle, which has administrative authority over the state's beverage container recycling program.

Connect With Us:



###

CalRecycle is the state's leading authority on recycling, waste reduction, and product reuse. CalRecycle plays an important role in the stewardship of California's vast resources and promotes innovation in technology to encourage economic and environmental sustainability. For more information, visit [www.calrecycle.ca.gov](http://www.calrecycle.ca.gov).

News Room <http://www.calrecycle.ca.gov/NewsRoom/>  
Public Affairs Office: [opa@calrecycle.ca.gov](mailto:opa@calrecycle.ca.gov) (916) 341-6300

[Conditions of Use](#) | [Privacy Policy](#) | [Language Complaint Form](#)  
©1995, 2015 California Department of Resources Recycling and Recovery (CalRecycle). All rights reserved.



For Immediate Release  
May 7, 2015  
Release #2015-10

For more information contact:  
Media Contact: [Lance Klug \(CalRecycle\)](#)

## Five Indicted in CRV Recycling Fraud Scheme: \$14 million in fraud uncovered in multi-state investigation

SACRAMENTO--California's Department of Resources Recycling and Recovery (CalRecycle) is announcing the indictments of five Californians on grand theft and recycling fraud charges in Kern County. CalRecycle and the California Department of Justice's Recycling Fraud Team conducted an investigation spanning nearly two years that revealed a complex scheme involving out-of-state used beverage containers, 24 Southern California recycling centers, and \$14 million worth of fraudulent California Redemption Value claims.

"Californians rightly expect us to act aggressively to combat CRV fraud," CalRecycle Director Carol Mortensen said. "These indictments send a clear message to anyone who thinks they can cheat the system by illegally cashing in on out-of-state containers through fraudulent CRV redemptions."

In September 2013, after a referral from CalRecycle, DOJ Recycling Fraud Team investigators observed Rodriguez Recycling of Los Angeles County importing used beverage containers from Arizona. On April 16, 2014, DOJ Recycling Fraud Team agents traveled to Phoenix and witnessed a semi-truck being loaded with used beverage containers. The semi was followed to a dirt lot in Bakersfield, where the containers were off-loaded into a U-Haul truck and onto a 53-foot trailer. A man later identified as Mario Mendoza of Bakersfield then delivered two loads of containers to Sequoia Resources in Bakersfield. Mendoza was arrested. With assistance from CalRecycle, agents later learned the loads were claimed in the names of S&S Recycling, Ignacio Recycling, and Gonzalez Recycling, operated by James Gonzales of Bakersfield. CalRecycle held and denied payment for approximately \$100,000 related to these claims.

Evidence obtained through search warrants showed Sequoia Resources loaned more than \$20,000 a week to Gonzalez Recycling with the expectation that Gonzales would bring back enough material to cover the cost within three days. Agents also determined that between November 2013 and April 2014, the center fronted roughly \$1 million to Gonzales for the redemption of CRV containers. The investigation ultimately determined that Gonzalo Rodriguez of Piru (Ventura County) organized the fraud scheme and relied on his family to either directly operate or form associations with approximately 18 recycling centers in Southern California. Those centers redeemed an estimated \$14 million in fraudulent material from the summer of 2012 to the summer of 2014.

While the DOJ Recycling Fraud Team was investigating Rodriguez, CalRecycle conducted parallel administrative investigations and took actions on multiple recycling centers related to the criminal referral. As a result, CalRecycle terminated the program certifications of 20 recycling centers, four others voluntarily decertified from the program, and CalRecycle denied payment of \$245,495 in handling fees.

On March 31, 2015, a Kern County Grand Jury indicted Gonzalo Rodriguez, James Gonzales, Mario Mendoza and family members Belen Gonzales of Piru and Adriana Rodriguez of Sylmar. All are in Kern County jail awaiting trial on grand theft and recycling fraud charges except Adriana Rodriguez, who remains at large.

California's Beverage Container Recycling and Litter Reduction Act incentivizes recycling through a CRV fee paid by California consumers at the time of purchase and refunded upon return of the empty containers. Since the fee is never paid by out-of-state consumers, out-of-state containers are not eligible for CRV redemption. CalRecycle aggressively combats fraud through enhanced training of recycling center owners, increased scrutiny of payment claims, daily load limits, and increased enforcement and inspection efforts with cooperation from California's DOJ and California Department of Food and Agriculture border inspection stations.



Connect With Us:

###

CalRecycle is the state's leading authority on recycling, waste reduction, and product reuse. CalRecycle plays an important role in the stewardship of California's vast resources and promotes innovation in technology to encourage economic and environmental sustainability. For more information, visit [www.calrecycle.ca.gov](http://www.calrecycle.ca.gov).

News Room <http://www.calrecycle.ca.gov/NewsRoom/>  
Public Affairs Office: [gpa@calrecycle.ca.gov](mailto:gpa@calrecycle.ca.gov) (916) 341-6300

[Conditions of Use](#) | [Privacy Policy](#) | [Language Complaint Form](#)

©1995, 2015 California Department of Resources Recycling and Recovery (CalRecycle). All rights reserved.



For Immediate Release  
August 27, 2015  
Release #2015-17

For more information contact:  
Media Contact: [Lance Klun](#) (CalRecycle)

## Update: Jail Time for Recycling Scammers--Ringleader of \$14 million fraud scheme awaiting trial

SACRAMENTO—The Department of Resources Recycling and Recovery (CalRecycle) and its enforcement partners with the California Department of Justice have announced the sentencing of two defendants in a multi-state recycling fraud scheme. The arrests were part of a comprehensive investigation involving dozens of Southern California recycling centers and \$14 million worth of fraudulent California Redemption Value claims. [Read the May 2015 news release announcing the indictments here.](#)

On July 17, 2015, two of the five defendants named in the indictment were sentenced for their involvement in the beverage container recycling program fraud.

- **Mario Mendoza** of Bakersfield pleaded no contest to felony recycling fraud and grand theft (loss greater than \$200,000), resulting in 10 months behind bars, three years on probation and \$250,000 restitution to CalRecycle.
- **James Gonzales** of Bakersfield pleaded no contest to felony recycling fraud and grand theft (loss of \$1.3M or more), resulting in 14 months behind bars, 22 months of supervised release and \$1.3 million restitution to CalRecycle.

The trial date for Belen Gonzales and alleged fraud mastermind Gonzalo Rodriguez, both of Piru (Ventura County), was continued to November 23, 2015. Both individuals remain in custody. The fifth suspect, 26-year-old Adriana Rodriguez of Sylmar, is still at large.

### Recycling Fraud Scheme Recap

- September 2013: Agents observe Rodriguez Recycling (Los Angeles) importing Arizona used beverage containers.
- April 2014: Agents travel to Phoenix, witness semi being loaded with empty beverage containers. Semi followed to Bakersfield, offloaded, and delivered to Sequoia Resources by **Mario Mendoza**.
- Loads claimed by S&S Recycling of Bakersfield, Ignacio Recycling of Lamont, and Gonzalez Recycling of Bakersfield (all operated by **James Gonzales**).
- Subsequent warrants reveal loan/delivery scheme at Sequoia Resources.
- Large-scale fraud operation uncovered—organized by Gonzalo Rodriguez—spanning from 2012-2014.
- CalRecycle terminates program certifications of 20 recycling centers and four others voluntarily decertify from the Beverage Container Recycling Program.
- Five individuals indicted on criminal charges.

California's Beverage Container Recycling and Litter Reduction Act incentivizes recycling through a CRV fee that's paid by California consumers at the time of purchase and refunded upon return of the empty beverage containers. Since the fee is not paid on beverages purchased outside the state, those containers are not eligible for CRV redemption. The California Department of Justice investigates and prosecutes criminal cases on behalf of CalRecycle, which has administrative authority over the state's beverage container recycling program.

Connect With Us:     

###

CalRecycle is the state's leading authority on recycling, waste reduction, and product reuse. CalRecycle plays an important role in the stewardship of California's vast resources and promotes innovation in technology to encourage economic and environmental sustainability. For more information, visit [www.calrecycle.ca.gov](http://www.calrecycle.ca.gov).

News Room <http://www.calrecycle.ca.gov/NewsRoom/>  
Public Affairs Office: [opa@calrecycle.ca.gov](mailto:opa@calrecycle.ca.gov) (916) 341-6300

[Conditions of Use](#) | [Privacy Policy](#) | [Language Complaint Form](#)  
©1995, 2015 California Department of Resources Recycling and Recovery (CalRecycle). All rights reserved.



# REQUEST FOR APPROVAL

Approval of  
Compostable Materials, Transfer/Processing Regulations  
Department of Resources Recycling and Recovery  
2015



## Purpose of Regulations

- ▶ The central purpose is to protect public health and safety, and the environment by more effectively regulating solid waste facilities that handle compostable material
- ▶ The regulations more effectively regulate facilities by:
  - ▶ Modifying Compostable Material Handling Operations and Facilities Regulatory Requirements
  - ▶ Providing a standardized regulatory framework for in-vessel digestion activities
  - ▶ Providing clarifications to the solid waste facilities joint permit application

## Regulation Development Process

- ▶ Informal Development (2011 - 2013)
  - ▶ Discussion documents
  - ▶ Workshops
  - ▶ Draft text
- ▶ Formal Rulemaking (Oct. 2014 - Present)
  - ▶ 45-day Comment Period (Oct. 10 - Dec. 5, 2014)
  - ▶ First 15-day Comment Period (Apr. 21 - May 6, 2015)
  - ▶ Second 15-day Comment Period (Jun. 29 - Jul. 14, 2015)

## Key Changes

### §17868.3.1 Physical Contamination Limits

Physical contaminant (limit of 0.5%)

- ▶ Film plastic no more than 20% of the 0.5%
- ▶ EA can require operator to send sample to a lab
- ▶ Effective January 1, 2018

## Key Changes

### §17852(a)(24.5) Land Application

- ▶ Before land application, compostable material must meet physical contaminant limits
- ▶ Material must meet maximum metals concentrations and pathogen density limits
- ▶ Limits on the application frequency and depth

## Key Changes

### §17852(a)(4.5) Agricultural By-Product Material

- ▶ Agricultural By-Product Material is defined, and it is specified that the material is not subject to the land application requirements found in §17852(24.5)

## Key Changes

### §17852(a)(20) Food Material §17852(a)(20)(A) Vegetative Food Material

- ▶ Vegetative food material is included as a subset of the food material definition
- ▶ Requires a Registration permit for the composting of vegetative food material

## Key Changes

### §17855(a)(4) Excluded Activities

- ▶ Excludes from regulation the composting of less than 100 yd<sup>3</sup> of material within a 750 ft<sup>2</sup> area of green material, agricultural material, food material, or vegetative food material, from any source, alone or in combination

## Key Changes

### §17863.4 Odor Impact Minimization Plan

- ▶ Requires odors to be minimized so as to not cause a “nuisance”
- ▶ EA required to investigate odor complaints and record specified information as part of the investigation
- ▶ EA can require operator to prepare and implement an Odor BMP Feasibility Report and take additional reasonable and feasible measures
- ▶ An operator can voluntarily prepare an Odor BMP Feasibility Report

## Key Changes

### §17896.6(a)(1) - Publicly Owned Treatment Works Exclusion

- ▶ Excludes co-digestion at POTWs that receive vehicle-transported anaerobically digestible material
- ▶ Anaerobically digestible material only includes inedible kitchen grease, food and vegetative food material.
- ▶ Material must be pumped or off-loaded directly into a covered, leak-proof container and then pumped, or diluted or slurried and then pumped
- ▶ The POTW must implement Standard Operating Procedures

## Key Changes

### §17896.6(a)(3) In-vessel Dairy Digester Exclusion

- ▶ Excludes dairies that co-digest manure and agricultural material and/or imported vegetative food material in accordance with WDRs issued by a RWQCB
- ▶ Imported materials must be pumped or off-loaded directly into a covered, leak-proof container and then pumped, or diluted or slurried and then pumped, and co-digested in an in-vessel digester

## Key Changes

### §17896.9 Dairy In-Vessel Digestion Operations

- ▶ Dairies that import solid waste to co-digest with manure in accordance with WDRs issued by a RWQCB
- ▶ Requires additional EA inspections

## Key Changes

### §17896.57 Digestate Handling

- ▶ Digestate removed from a digester must be:
  - ▶ Stored or processed in a sealed container or sealed structure,
  - ▶ Incorporated in an on-site aerobic compost process, or
  - ▶ Removed from the site and:
    - ▶ transported to another solid waste facility or operation
    - ▶ used in a manner approved by local, state, and federal agencies, or
    - ▶ properly disposed

## Economic/Financial Impact

- ▶ CalRecycle prepared a Standardized Regulatory Impact Analysis (SRIA), pursuant to Government Code section 11346.3(c)(1), and
- ▶ Economic and Fiscal Impact Statement (STD. 399), pursuant to State Administrative Manual

## Request for Approval

- ▶ Staff recommends adoption of the proposed revised Compostable Materials, Transfer/Processing Regulations
- ▶ If the regulations are adopted staff will complete the rule making package to be submitted to the Office of Administrative Law for approval and publishing



# REQUEST FOR APPROVAL

Adoption of Negative Declaration  
Compostable Materials, Transfer/Processing Regulations

Department of Resources Recycling and Recovery  
2015



## Before the regulations are adopted:

- ▶ CEQA requires CalRecycle to determine whether the approval of the regulations may have any potential significant adverse environmental effects
- ▶ CalRecycle prepared an Initial Study to evaluate all potential significant adverse environmental effects

## Comments Received

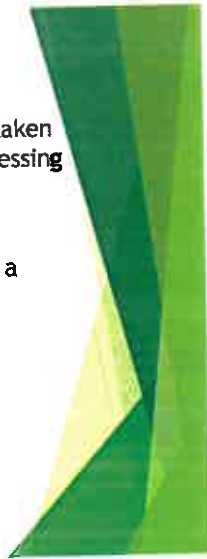
- ▶ CalRecycle received two comment letters and two emails containing comments
- ▶ A summary of comments received and staff's responses to those comments is an attachment to the Request for Approval posted on the CalRecycle website

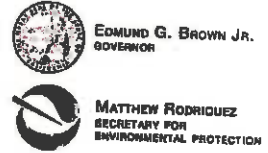
## Findings

- ▶ CalRecycle staff prepared and noticed the availability of a draft Initial Study for review and comment
- ▶ CalRecycle reviewed and considered all comments received
- ▶ CalRecycle determined that the proposed regulations will not have any potential significant adverse environmental effects
- ▶ CalRecycle prepared a Negative Declaration and final Initial Study; the documents reflect CalRecycle's independent judgement and analysis

## Request for Approval

- ▶ Staff recommends adoption of the Negative Declaration and Initial Study prior to action taken on the Compostable Materials, Transfer/Processing Regulations
- ▶ If the regulations are approved staff will file a Notice of Determination with the State Clearinghouse





EDMUND G. BROWN JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## State Water Resources Control Board

# NOTICE OF PROPOSED EMERGENCY RULEMAKING

## Annual Waste Discharge Permit Fees

### Amendments to Division 3 of Title 23 of the California Code of Regulations

#### Required Notice of Proposed Emergency Action

Government Code section 11346.1, subdivision (a)(2) requires that, at least five working days prior to submission of a proposed emergency action to the Office of Administrative Law (OAL), the adopting agency provide a notice of the proposed emergency action to every person who has filed a request for notice of regulatory action with the agency. After submission of the proposed emergency to OAL, the OAL shall allow interested persons five calendar days to submit comments on the proposed emergency regulations as set forth in Government Code section 11349.6.

The State Water Resources Control Board (State Water Board) sent out to interested parties via electronic mail the proposed changes to Title 23, Division 3, Chapter 9, Article 1, Sections 2200.6 and 2200.7 and add Sections 2200.8 and 2200.9 of the California Code of Regulations on September 3, 2015. This notification satisfies the requirements of Government Code section 11346.1(a)(2).

#### Proposed Emergency Action

Water Code section 13260(f) requires the State Water Board to adopt emergency regulations revising and establishing fees to be deposited in the Waste Discharge Permit Fund in the State Treasury. Water Code section 13260(f)(1) requires the State Water Board to adjust the fee schedule each fiscal year to conform to the revenue levels set forth in the annual Budget Act. On September 16, 2015, the State Water Board adopted [Resolution No. 2015-0060](#), which adjusted waste discharge permit fees to conform to the revenue levels set forth in the Budget Act for Fiscal Year (FY) 2015-16.

#### Proposed Text of Emergency Regulations

The proposed text of the emergency regulations is attached.

#### Finding of Emergency (Gov. Code, § 11346.1, subd. (b))

The State Water Board has a mandatory legal duty to adopt emergency regulations revising the fees as necessary each fiscal year pursuant to the Water Code 13260(f). Water Code section 13260(f)(2) states that "[t]he adoption of these regulations is an emergency and shall be considered by the Office of Administrative Law as necessary for the immediate preservation of the public peace, health, safety, and general welfare." Notwithstanding chapter 3.5 (commencing with section 11340) of part 1 of division 3 of title 2 of the Government Code, the emergency regulations shall remain in effect until revised by the State Water Board.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, Ca 95812-0100 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)

Moreover, the State Water Board finds that the amendments to the regulations must be adopted immediately in order to allow for the timely collection of fees consistent with the Budget Act. Without fee revenue in the amounts established by the Budget Act, much of the water quality program would have to be shut down. Continued administration of the water quality program is essential to the economy and environment of the State of California. Adoption of the regulations is necessary for the immediate preservation of the public health and welfare. The State Water Board is unable to address the situation through nonemergency regulations because, as discussed above, it has a mandatory legal duty to adopt the fee schedules by emergency regulation.

**Authority and Reference** (Gov. Code, § 11346.5, subd. (a)(2))  
Water Code section 13260(f).

**Informative Digest** (Gov. Code, § 11346.5, subd. (a)(3))  
Under the Water Code and existing regulations, any person filing a report of waste discharge that could affect the quality of the waters of the state must pay an annual fee to the State Water Board.

The emergency regulations will adjust the fee schedule to maintain fees at the FY 2014-15 levels for waste discharge permit holders and give a one-year fee reduction to some permit holders as a result of revenue exceeding projected expenditures.

There is no comparable federal statute or regulation.

**Other Matters Prescribed by Statute** (Gov. Code, § 11346.5, subd. (a)(4))  
No other matters are prescribed by statute or regulation applicable to the State Water Board.

**Local Mandate** (Gov. Code, § 11346.5, subd. (a)(5))  
The proposed emergency regulations do not impose a mandate on local agencies or school districts because they do not mandate a new program or a higher level of service of an existing program. The fee schedule applies equally to public and private entities and is not unique to local government. No state reimbursement is required by part 7 (commencing with section 17500) of division 4 of the Government Code.

**Estimate of Cost or Savings** (Gov. Code, § 11346.5, subd. (a)(6))  
Under the proposed emergency regulations for this fiscal year, most local and state agencies will pay decreased fees over last year. The amended fee schedule will result in a total estimated decrease to state agencies of about \$313,464. There is no cost to any local agency or school district for which reimbursement is required or other nondiscretionary cost of savings imposed on local agencies. There is no cost or savings in federal funding to the state.

September 25, 2015  
Date

  
Jeanine Townsend  
Clerk to the Board

## 20145-156 Fee Schedules

### CALIFORNIA CODE OF REGULATIONS TITLE 23. Division 3. Chapter 9. Waste Discharge Reports and Requirements Article 1. Fees

#### Section 2200. Annual Fee Schedules.

Each person for whom waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code shall submit, to the State Board, an annual fee in accordance with the following schedules. The fee shall be submitted for each waste discharge requirement order issued to that person.<sup>1</sup>

(a) The annual fees for persons issued waste discharge requirements (WDRs), except as provided in subdivisions (a)(3), (a)(4), (b), and (c), shall be based on the discharge's threat to water quality (TTWQ) and complexity (CPLX) rating according to the following fee schedule, plus applicable surcharge(s). For Fiscal Year 2015-16, Land Disposal dischargers Not Paying a Tipping Fee will receive a 19.2 percent fee reduction of the calculated fee, prior to the addition of any applicable surcharge. For Fiscal Year 2015-16, Land Disposal dischargers Paying a Tipping Fee will receive an 18.8 percent fee reduction of the calculated fee, prior to the addition of any applicable surcharge.

ANNUAL FEE SCHEDULE FOR WASTE DISCHARGE REQUIREMENTS				
Threat to Water Quality (TTWQ)	Complexity (CPLX)	Type of Discharge		
		Discharge to Land or Surface Waters <sup>2</sup>	Land Disposal <sup>3</sup>	
			Not Paying a Tipping Fee <sup>4</sup>	Paying a Tipping Fee <sup>5</sup>
1	A	\$109,095	\$70,781 <sup>6</sup>	\$59,252 <sup>6</sup>
1	B	\$68,901	\$57,168	\$47,856
1	C	\$37,178	\$36,751	\$30,766
2	A	\$24,833	\$30,625	\$25,638
2	B	\$14,929	\$24,502	\$20,510

<sup>1</sup> Federal facilities will generally not be invoiced for the portion of the annual fee that is attributable to the State Board's ambient water monitoring programs. See *Massachusetts v. United States* (1978) 435 U.S. 444.

<sup>2</sup> For this table, discharges to land or surface waters are those discharges of waste to land or surface waters not covered by NPDES permits that are regulated pursuant to Water Code Section 13263 that do not implement the requirements of Title 27 of the California Code of Regulations (CCR). Examples include, but are not limited to, wastewater treatment plants, erosion control projects, and septic tank systems. It does not include discharge of dredge or fill material, discharges from agricultural lands, including irrigated lands, or discharge from animal feeding operations.

Dischargers covered by a WDR for municipal and domestic discharges with permitted flows of less than 50,000 gallons per day in present. Municipal and domestic discharges receiving the discount are defined as discharges from facilities that treat domestic wastewater or a mixture of wastewater that is predominately domestic wastewater. Domestic wastewater consists of wastes from bathroom toilets, showers, and sinks from residential kitchens and residential clothes washing. It does not include discharges from food preparation and dish washing in restaurants or from commercial laundromats. Dischargers covered by a Landscape Irrigation General Permit issued by the State Water Board will be assessed a fee associated with TTWQ/CPLX rating of 3B.

<sup>3</sup> For this table, land disposal discharges are those discharges of waste to land that are regulated pursuant to Water Code Section 13263 that implement the requirements of CCR Title 27, Division 2, except Chapter 7, Subchapter 2, §22560-22565 (confined animal facilities). Examples include, but are not limited to, discharges associated with active and closed landfills, waste piles, surface impoundments, and mines.

<sup>4</sup> For this table, Not Paying a Tipping Fee are those land disposal dischargers not subject to Public Resources Code (PRC) § 48000 et seq.

<sup>5</sup> For this table, Paying a Tipping Fee are those land disposal dischargers subject to PRC § 48000 et seq.

<sup>6</sup> A surcharge of \$12,000 will be added for Class I landfills. Class I landfills are those that, during the time they are, or were, in operation, are so classified by the Regional Board under 23 CCR Chapter 15, have WDRs that allow (or, for closed units, allowed) them to receive hazardous waste, and have a permit issued by the Department of Toxic Substances Control under 22 CCR Chapter 10, § 66270.1 et seq.

## 20145-156 Fee Schedules

2	C	\$11,195	\$18,376	\$15,383
3	A	\$8,823	\$12,250	\$10,256
3	B	\$4,699	\$9,188	\$7,690
3	C	\$2,088	\$4,082	\$3,419

Oil and gas produced water storage and disposal facilities regulated by waste discharge requirements are subject to a surcharge as follows:

<u>Barrels/Year</u>	<u>Surcharge</u>
<u>0-19,999</u>	<u>\$4,500</u>
<u>20,000-99,999</u>	<u>\$9,000</u>
<u>100,000+</u>	<u>\$13,500</u>

(1) Threat to water quality (TTWQ)<sup>7</sup> and complexity (CPLX) of the discharge is assigned by the Regional Board in accordance with the following definitions:

### THREAT TO WATER QUALITY

**Category "1"** – Those discharges of waste that could cause the long-term loss of a designated beneficial use of the receiving water. Examples of long-term loss of a beneficial use include the loss of drinking water supply, the closure of an area used for water contact recreation, or the posting of an area used for spawning or growth of aquatic resources, including shellfish and migratory fish.

**Category "2"** – Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance.

**Category "3"** – Those discharges of waste that could degrade water quality without violating water quality objectives, or could cause a minor impairment of designated beneficial uses as compared with Category 1 and Category 2.

### COMPLEXITY

**Category "A"** – Any discharge of toxic wastes; any small volume discharge containing toxic waste; any facility having numerous discharge points and groundwater monitoring; or any Class 1 waste management unit.

**Category "B"** – Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units.

**Category "C"** – Any discharger for which waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code not included in Category A or Category B as described above. Included are dischargers having no waste treatment systems or that must comply with best management practices, dischargers having passive treatment and disposal systems, or dischargers having waste storage systems with land disposal.

<sup>7</sup> In assigning a category for TTWQ, a regional board should consider duration, frequency, seasonality, and other factors that might limit the impact of the discharge.



## 20145-156 Fee Schedules

(2) For dischargers covered under Statewide General WDRs for Sanitary Sewer Systems, the TTWQ and CPLX designations are assigned based on the population served by the sanitary sewer system. The table below describes the correlation between population served and TTWQ and CPLX designations to determine the appropriate annual fee:

Population Served <sup>8</sup>	Threat and Complexity Designation
Less than 50,000	3C
50,000 or more	2C

(3) The fees for discharges of dredge and fill material shall be as follows.<sup>9</sup>

STANDARD FEE			
Discharge Category	Application Fee <sup>10</sup>	Annual Active Discharge Fee <sup>11</sup>	Annual Post-Discharge Monitoring Fee <sup>12</sup>
(A) Fill and Excavation <sup>13</sup> Discharges	Discharge length in feet x	\$600	\$300

<sup>8</sup> Assumes 2.5 persons per equivalent dwelling unit (EDU).

<sup>9</sup> i. For "excavation" the area of the discharge is the area of excavation; if the excavated material is then discharged to waters, an additional "fill" fee will be assessed.

ii. When a single project includes multiple discharges within a single dredge and fill fee category, the fee for that category shall be assessed based on the total area, volume, or length of discharge (as applicable) of the multiple discharges. When a single project includes discharges that are assessed under multiple standard fee categories, the total application fee shall be the sum of the application fees assessed under each applicable fee category; however only a single annual active discharge fee or the single annual post-discharge monitoring fee, if required, shall be assessed for the project. The single annual active discharge fee and the single annual post-discharge monitoring fee for the project shall be based on the higher of the applicable fee categories. Single projects qualifying for a special/flat fee or amended order fee shall only be assessed the applicable special/flat fee or amended order fee.

iii. Fees shall be based on the largest discharge size specified in the original or revised report of waste discharge or Clean Water Act (CWA) Section 401 water quality certification application, or as reduced by the applicant without any State Board or Regional Board intervention.

iv. If water quality certification is issued in conjunction with dredge or fill WDRs or is issued for a discharge regulated under such preexisting WDRs, the current annual WDR fee as derived from this dredge and fill fee schedule shall be paid in advance during the application for water quality certification, and shall comprise the fee for water quality certification.

v. Discharges requiring water quality certification and regulated under a federal permit or license other than a US Army Corps of Engineers CWA Section 404 permit or a Federal Energy Regulatory Commission License shall be assessed a fee determined from CCR 23, Section 2200(a).

<sup>10</sup> Dischargers shall pay a one-time application fee for each project at the time that the application or report of waste discharge is submitted. Notwithstanding section 2200.2, if discharges commence in a fiscal year other than the fiscal year in which the application or report of waste discharge is submitted, the application fee is in addition to the first annual active discharge fee for the project. If discharges commence in the same fiscal year as the application or report of waste discharge is submitted, the discharger shall pay only the greater of the application fee or the first annual active discharge fee. The application fee for category (A) fill and excavation discharges will be based on the discharger's estimate of project length and area. If, upon completion, the actual length or area is larger than the estimate, the discharger may receive an additional application fee invoice that is based on the actual project length and area, minus the application fee that was previously paid.

<sup>11</sup> Dischargers shall pay an annual active discharge fee each fiscal year or portion of a fiscal year during which discharges occur until the regional board or the State Board issues a Notice of Completion of Discharges Letter to the discharger. The annual active discharge fee for category (B) dredging discharges will be invoiced after the annual dredge volume has been determined.

<sup>12</sup> Dischargers shall pay an annual post-discharge monitoring fee each fiscal year or portion of a fiscal year commencing with the first fiscal year following the fiscal year in which the regional board or State Board issued a Notice of Completion of Discharges Letter to the discharger, but continued water quality monitoring or compensatory mitigation monitoring is required. Dischargers shall pay the annual post-discharge monitoring fee each fiscal year until the regional board or the State Board issues a Notice of Project Complete Letter to the discharger.

<sup>13</sup> "Excavation" refers to removing sediment or soil in shallow waters or under no-flow conditions where impacts to beneficial uses are best described by the area of the discharge. It typically is done for purposes other than navigation. Examples include trenching for utility lines, other earthwork preliminary to discharge, removing sediment to increase channel capacity, and other flood control and drainage maintenance activities (e.g., debris removal, vegetation management and removal, detention basin maintenance and erosion control of slopes along open channels and other drainage facilities).

## 20145-156 Fee Schedules

Discharges will be assessed as the higher fee of "discharge length in feet" and "discharge area in acres." The size of the discharge area shall be rounded to two decimal places (0.01 acre = 436 square feet).	\$13.50 -or- Discharge area in acres x \$5,670 whichever is higher, up to a maximum of \$90,000. The minimum application fee is \$600.		
<b>(B) Dredging<sup>14</sup> Discharges</b> (except Sand Mining-see (C) below) Dredge volume expressed in cubic yards.	\$600	Annual dredge volume in cubic yards x \$0.21, up to a project maximum of \$90,000. The minimum annual active discharge fee is \$600.	\$300
<b>SPECIAL/FLAT FEE</b>			
<b>Discharge Category</b>	<b>Application Fee<sup>10</sup></b>	<b>Annual Active Discharge Fee<sup>11</sup></b>	<b>Annual Post-Discharge Monitoring Fee<sup>12</sup></b>
<b>(C) Sand Mining Dredging Discharges</b> Aggregate extraction in marine waters where source material is free of pollutants and the dredging operation will not violate any basin plan provisions.	\$600	\$600	\$300
<b>(D) Ecological Restoration and Enhancement Projects</b> Projects undertaken for the sole purpose of restoring or enhancing the beneficial uses of water. This schedule does not apply to projects required under a regulatory mandate or to projects that are not primarily intended for ecological restoration or enhancement, e.g., land development.	\$200	\$200	\$100
<b>(E) Low Impact Discharges</b> Projects may be classified as low impact discharges if they meet all of the following criteria:  1. The discharge size is less than all of the following: (a) for fill, 0.1 acre, and 200 linear feet, and (b) for dredging, 25 cubic yards.  2. The discharger demonstrates that: (a) all practicable measures will be taken to avoid impacts; (b) where unavoidable temporary impacts take place, waters and vegetation will be restored to pre-project conditions as quickly as practicable; and (c) where unavoidable permanent impacts take place, there will be no net loss of wetland, riparian area, or headwater functions, including onsite habitat, habitat connectivity, floodwater retention, and pollutant removal.	\$200	N/A	N/A

<sup>14</sup> "Dredging" generally refers to removing sediment in deeper water to increase depth. The impacts to beneficial uses are best described by the volume of the discharge and typically occur to facilitate navigation. For fee purposes it also includes aggregate extraction within stream channels where the substrate is composed of coarse sediment (e.g., gravel) and is reshaped by normal winter flows (e.g., point bars), where natural flood disturbance precludes establishment of significant riparian vegetation, and where extraction timing, location and volume will not cause changes in channel structure (except as required by regulatory agencies for habitat improvement) or impair the ability of the channel to support beneficial uses.



## 20145-156 Fee Schedules

<p>3. The discharge will not do any of the following: (a) directly or indirectly destabilize a bed of a receiving water; (b) contribute to significant cumulative effects; (c) cause pollution, contamination, or nuisance; (d) adversely affect candidate, threatened, or endangered species; (e) degrade water quality or beneficial uses; (f) be toxic; or (g) include "hazardous" or "designated" material.</p>			
<p><b>(F) General Orders for CEQA Exempt Projects</b>          Projects which are CEQA exempt and which are required to submit notification of a proposed discharge to the State and/or Regional Board pursuant to: (1) a general order authorizing impacts for the qualifying project CEQA exemption (e.g. Small Habitat Restoration General Permit); or (2) a general water quality certification permitting discharges authorized by a U.S. Army Corps of Engineers general permit (e.g., nationwide permit). Applies ONLY if a general order or general water quality certification was previously granted.</p>	\$200	N/A	N/A
<p><b>(G) Emergency Projects authorized by a Water Board General Order</b></p>			
<p><b>(H) Amended Orders</b>          Amendments of WDR's or water quality certifications previously issued for one-time discharges not subject to annual billings.</p> <ul style="list-style-type: none"> <li>(a) Minor project changes, not requiring technical analysis and involving only minimal processing time.</li> <li>(b) Changes to projects eligible for flat fees (fee categories C and D) where technical analysis is needed to assure continuing eligibility for flat fee and that beneficial uses are still protected.</li> <li>(c) Project changes not involving an increased discharge amount, but requiring some technical analysis to assure that beneficial uses are still protected and that original conditions are still valid, or need to be modified.</li> <li>(d) Project changes involving an increased discharge amount and requiring some technical analysis to assure that beneficial uses are still protected and that original conditions are still valid, or need to be modified.</li> <li>(e) Major project changes requiring an essentially new analysis and re-issuance of WDR's or water quality certification.</li> </ul>			<ul style="list-style-type: none"> <li>(a) No fee required</li> <li>(b) \$300 flat fee</li> <li>(c) \$200 flat fee</li> <li>(d) Additional standard fee assessed per increased amount of discharge(s)</li> <li>(e) New standard fee assessed</li> </ul>

~~(4) The annual fee for discharges associated with marijuana cultivation shall be as follows:~~

Total Area Cultivated	Annual Fee
Less than 0.25 acres	\$500
0.25 to 5 acres	\$2,500
Greater than 5 acres	\$10,000

## 20145-166 Fee Schedules

(b) The annual fees for persons issued NPDES permits shall be based on the following schedules, plus any applicable surcharge(s).

(1)(A) Each public entity that owns and/or operates a storm water conveyance system, or part of such a system, that is subject to a NPDES permit for storm water discharges from a municipal separate storm sewer system (MS4) shall pay an annual fee according to the following schedule. The fee shall be based on the population of the public entity according to the most recently published United States Census. For public entities other than cities or counties (Non-Traditional Small MS4s<sup>15</sup>), shall pay an annual fee according to the following schedule, based on the average daily population<sup>16</sup> using the entities facilities, unless otherwise provided in the schedule. Flood control districts or other special districts named as co-permittees to MS4 permits and school districts, serving students between kindergarten and fourteenth grade, shall not pay an annual fee if the city or county within whose jurisdiction the district lies, pays an annual fee. For Fiscal Year 20145-156, dischargers paying this fee will receive a ~~an~~ 8.9 28.4 percent reduction of the total fee.

<b>ANNUAL FEE SCHEDULE FOR AREAWIDE MUNICIPAL STORM WATER SEWER SYSTEM PERMITS AND CO-PERMITTEES</b>	
Population equal to or greater than 250,000	\$63,956
Population between 200,000 and 249,999	\$55,961
Population between 150,000 and 199,999	\$48,285
Population between 100,000 and 149,999	\$39,974
Population between 75,000 and 99,999	\$31,979
Population between 50,000 and 74,999	\$23,982
Population between 25,000 and 49,999	\$15,989
Population between 10,000 and 24,999	\$9,594
Population between 1,000 and 9,999	\$6,395
Less than 1,000 population	\$3,199
Statewide Permit Holders	\$255,822
High Speed Rail Authority	\$150,000

(B) Dischargers applying for the Small MS4 Waiver of a General Permit to Discharge Storm Water Associated with Small Municipal Activity issued by the State Water Board shall pay an application fee of \$200.

<sup>15</sup> Non-Traditional Small MS4s are facilities that have systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. (40 C.F.R. § 122.26(b)(16)(iii)).

<sup>16</sup> Total daily population must include resident and commuter populations. For community services districts, total daily population must include resident population and non-residents regularly employed in the areas served by the district.

## 20145-156 Fee Schedules

(2) Any entity or entities submitting a watershed improvement plan to the Regional Board for review pursuant to Section 16102 of the Water Code shall reimburse the Regional Board for its costs<sup>17</sup> to review and oversee the implementation of the plan, which shall be calculated using a rate of \$150.00 per hour.

(3) Facilities that discharge storm water associated with industrial activities that are regulated by a State Board or Regional Board general NPDES storm water permit shall pay an annual fee of \$1,791. An amount equal to the fee prescribed shall be submitted with the discharger's Notice of Intent (NOI) to be regulated under a general NPDES permit and will serve as the first annual fee. For the purposes of this section, an NOI is considered to be a report of waste discharge. For Fiscal Year 20145-156, dischargers paying this fee will receive an ~~8.9~~ 28.4 percent reduction of the total fee.

(4)(A) Storm water discharges associated with construction activities that are regulated by a general NPDES storm water permit other than those covered under (b)(5), including those issued by a Regional Board, shall pay an annual fee of \$512 plus \$51 per acre (rounded to the nearest whole acre and dollar amount), to a maximum fee of \$5,612, based on the total acreage to be disturbed during the life of the project as listed on the NOI. An amount equal to the fee prescribed shall be submitted with the discharger's NOI to be regulated under a general NPDES permit and will serve as the first annual fee. For the purposes of this section, an NOI is considered to be a report of waste discharge. For Fiscal Year 20145-156, dischargers paying this fee will receive an ~~8.9~~ 28.4 percent reduction of the total calculated fee.

(B) Dischargers applying for the Small Construction Rainfall Erosivity Waiver of a General Permit to Discharge Storm Water Associated with Construction Activity issued by the State Water Board shall pay an application fee of \$200.

(5) Discharges associated with mosquito and vector control activities<sup>18</sup> that are regulated by an individual or general NPDES permit adopted specifically for these purposes, including those issued by a Regional Board, shall pay a fee of \$241. Dischargers filing an application for a mosquito and vector control permit shall pay a fee of \$241. The fee shall be paid each time an application for initial certification or renewal is submitted. Mosquito and vector control fees are not subject to ambient water monitoring surcharges.

(6) Planned and emergency discharges from community water systems that are regulated by a general NPDES permit adopted specifically for this purpose shall pay an application fee and subsequent annual fees (if applicable) based on the number of service connections for the public water system in accordance with the following schedule. The application fee shall be submitted with the discharger's NOI to be regulated by the general NPDES permit. For purposes of this section, an NOI is considered to be a report of waste discharge.

Service Connections	Application Fee Only	Application & Annual Fee
15-999	\$100	
1,000-9,999		\$500
10,000+		\$2,062
Transmission Only		\$2,062

<sup>17</sup> These costs include labor, State Board and Regional Board administrative costs, and overhead costs.

<sup>18</sup> A mosquito and vector control activity involved discharge of pesticides into a designated area for the maintenance and control of mosquito larva for the protection of public health from the outbreak of lethal diseases. A mosquito and vector control agency discharges pesticides into surface waters for the control of mosquito larva.

## 20145-156 Fee Schedules

<b>Dischargers with a Single System</b>		
<u>Service Connections</u>	<u>Application Fee</u>	<u>Annual Fee</u>
<u>15 - 999</u>	<u>\$100</u>	<u>No Annual Fee</u>
<u>1,000 - 9,999</u>	<u>\$500</u>	<u>\$500</u>
<u>10,000+</u>	<u>\$2,062</u>	<u>\$2,062</u>
<u>Transmission System or Water Wholesaler</u>	<u>\$2,062</u>	<u>\$2,062</u>

<b>Dischargers with Multiple Systems</b>		
<u>Total Number of Service Connections</u>	<u>Application Fee</u>	<u>Annual Fee<sup>19</sup></u>
<u>15 - 999</u>	<u>\$100</u>	<u>No Annual Fee</u>
<u>1,000 - 9,999</u>	<u>\$500</u>	<u>\$500 per Primary System fee plus \$100 per Secondary System</u>
<u>10,000+</u>	<u>\$2,062</u>	<u>\$2,062 per Primary System fee plus \$100 per Secondary System</u>
<u>Transmission System or Water Wholesaler System</u>	<u>\$2,062</u>	<u>\$2,062 Primary System fee plus \$100 per Secondary System</u>

(7) All other NPDES permitted discharges, except as provided in (b)(9), (b)(10), and (c), shall pay a fee according to the following formula:

Fee equals \$2,062 plus 3,646 multiplied by the permitted flow, in mgd, with a maximum fee of \$515,537 plus any applicable surcharge(s).

If there is no permitted effluent flow specified, the fee shall be based on the design flow of the facility.

For Fiscal Year 20145-156, dischargers paying this fee will receive a 3-2-1.2 percent reduction of the calculated fee, prior to the addition of any applicable surcharge.

NPDES permitted industrial discharges<sup>20</sup> with a threat/complexity<sup>21</sup> rating of 1A, 1B, or 1C are subject to a surcharge as follows:

Threat/Complexity Rating 1A - \$15,000

<sup>19</sup> All Transmission Systems and Water Wholesaler Systems are Primary Systems. If the Discharger does not have a Transmission System or a Water Wholesaler System, the Discharger's individual water system with the highest number of service connections will be designated as the Primary System. All systems that are not Primary Systems are designated as Secondary Systems.

<sup>20</sup> NPDES permitted industrial discharger(s) means those industries identified in the Standard Industrial Classification Manual, Bureau of Budget, 1967, as amended and supplemented, under the category "Division D-Manufacturing" and such other classes of significant waste producers as, by regulation, the U.S. EPA Administrator deems appropriate. (33 USC Sec. 1362).

<sup>21</sup> Threat/complexity categories are listed under (a)(1) of this document.

## 20145-156 Fee Schedules

Threat/Complexity Rating 1B - \$10,000  
Threat/Complexity Rating 1C - \$5,000

Public wastewater treatment facilities with approved pretreatment programs are subject to a surcharge of \$10,000. Agencies with multiple facilities under one approved pretreatment program shall pay a \$10,000 surcharge per program.

(8)(A) Flow for wet weather municipal facilities<sup>22</sup> will be based on the previous five years' actual monthly average flow<sup>23</sup>, as of the date the permit is issued.

(B) Notwithstanding (8)(A), the minimum annual fee for wet weather municipal facilities shall be \$20,000.

(9) All other general NPDES permits and de minimis discharges<sup>24</sup> that are regulated by an individual or general NPDES permit, including those issued by a Regional Board, shall pay a fee as follows:

Category 1 - Discharges that require treatment systems to meet priority toxic pollutant limits and that could impair beneficial uses if limits are violated: \$11,877.

Category 2 - Discharges that require treatment systems to meet non-priority pollutant limits, but are not expected to impair beneficial uses if limits are violated. Examples of non-priority pollutants include, but are not limited to, nutrients, inorganic compounds, pH, and temperature: \$7,177.

Category 3 - Discharges that require minimal or no treatment systems to meet limits and pose no significant threat to water quality: \$2,062.

For Fiscal Year 20145-156, dischargers paying this fee will receive a ~~3-2~~ 1.2 percent reduction of the total fee.

<sup>22</sup> Wet weather municipal facilities are intermittently operated facilities that are designed specifically to handle flows during wet weather conditions.

<sup>23</sup> The actual monthly average flow is defined as the average of the flows during each of the months that the discharge occurred during the previous five-year period.

<sup>24</sup> De minimis discharge activities include, but are not limited to, the following: aquaculture activities (as defined in Chapter 40, Section 122.25(b) of the Code of Federal Regulations) defined as managed water areas that use discharges of pollutants into that designated area for maintenance or reproduction of harvestable freshwater, estuarine, or marine plants or animals including fish hatcheries; geothermal facilities that utilize, extract, or produce energy from geothermal fluids for heating, generating power, or other beneficial uses, and discharge geothermal fluids to surface waters; aquatic pesticide applications; evaporative condensate; swimming and landscape pool drainage; discharges from fire hydrant testing or flushing; discharges resulting from construction dewatering; discharges associated with supply well installation, development, test pumping, and purging; discharges resulting from the maintenance of uncontaminated water supply wells, pipelines, tanks, etc.; discharges resulting from hydrostatic testing of water supply vessels, pipelines, tanks, etc.; discharges resulting from the disinfection of water supply pipelines, tanks, reservoirs, etc.; discharges from water supply systems resulting from system failures, pressure releases, etc.; discharges of non-contact cooling water, not including steam/electric power plants; discharges resulting from diverted stream flows; water treatment plant discharges; and other similar types of wastes that have low pollutant concentrations and are not likely to cause or have a reasonable potential to cause or contribute to an adverse impact on the beneficial uses of receiving waters yet technically must be regulated under an NPDES permit.

## 20145-156 Fee Schedules

(c) The annual fees for [waste discharge requirements and waivers of waste discharge requirements](#) for discharges from confined animal facilities shall be based on the following schedules.

<b>FEEDLOTS</b>	
Type of Facility	
Number of Animals	Fee
<b>Cattle or Cow/Calf Pairs</b>	
100,000 or more	\$9,937
10,000 to 99,999	\$4,968
5,000 to 9,999	\$2,649
1,000 to 4,999	\$1,324
Less than 1,000	\$663
<b>Calves</b>	
10,000 or more	\$9,937
5,000 to 9,999	\$4,968
1,000 to 4,999	\$2,649
300 to 999	\$1,324
Less than 300	\$663
<b>Heifers (not at a dairy)</b>	
10,000 or more	\$9,937
5,000 to 9,999	\$4,968
1,000 to 4,999	\$2,649
300 to 999	\$1,324
Less than 300	\$663
<b>Finishing Yards/Auction Yards</b>	
1,000 or more	\$2,649
300 to 999	\$1,324
Less than 300	\$663

<b>DAIRIES</b>	
Type of Facility	
Number of Animals	Fee
<b>Mature Dairy Cattle</b>	
3,000 or more	\$13,248
1,500 to 2,999	\$8,279
700 to 1,499	\$3,974
300 to 699	\$1,987
<del>Less than 300</del> 150 to 299	\$994
50 to 149	\$497
<b>Goat Dairies</b>	
1,000 or more	\$1,324
Less than 1,000	\$663
<b>HOGS</b>	
<b>Swine (&gt; 55 pounds)</b>	
5,000 or more	\$4,968
2,500 to 4,999	\$2,649
750 to 2,499	\$1,324
Less than 750	\$663
<b>Swine (&lt; 55 pounds)</b>	
20,000 or more	\$4,968
10,000 to 19,999	\$2,649
3,000 to 9,999	\$1,324
Less than 3,000	\$663
<b>OTHER</b>	
<b>Horses</b>	
500 or more	\$2,649
150 to 499	\$1,324
Less than 150	\$663
<b>Sheep or Lambs</b>	
10,000 or more	\$2,649
3,000 to 9,999	\$1,324
Less than 3,000	\$663



**20145-156 Fee Schedules**

<b>POULTRY</b>		
<b>Number of Animals</b>	<b>On-Site Discharge Fee</b>	<b>Off-Site Discharge Fee</b>
<b>Layers or Broilers (liquid manure system)</b>		
120,000 or more	\$6,623	\$2,319
60,000 to 119,999	\$3,313	\$1,656
30,000 to 59,999	\$2,485	\$1,159
9,000 to 29,999	\$1,324	\$663
Less than 9,000	\$663	\$0
<b>Non-layers (other than liquid manure system)</b>		
500,000 or more	\$6,623	\$2,319
250,000 to 499,999	\$3,313	\$1,656
125,000 to 249,999	\$2,485	\$1,159
37,500 to 124,999	\$1,324	\$663
Less than 37,500	\$663	\$0
<b>Layers (other than liquid manure system)</b>		
350,000 or more	\$6,623	\$2,319
165,000 to 349,999	\$3,313	\$1,656
82,000 to 164,999	\$2,485	\$1,159
25,000 to 81,999	\$1,324	\$663
Less than 25,000	\$663	\$0
<b>Ducks (other than liquid manure system)</b>		
120,000 or more	\$6,623	\$2,319
60,000 to 119,999	\$3,313	\$1,656
30,000 to 59,999	\$2,485	\$1,159
10,000 to 29,999	\$1,324	\$663
Less than 10,000	\$663	\$0
<b>Ducks (liquid manure system)</b>		
20,000 or more	\$3,313	
5,000 to 19,999	\$2,485	
1,500 to 4,999	\$1,324	
Less than 1,500	\$663	
<b>Turkeys</b>		
200,000 or more	\$6,623	\$2,319
100,000 to 199,999	\$3,313	\$1,656
55,000 to 99,999	\$2,485	\$1,159
16,500 to 54,999	\$1,324	\$663
Less than 16,500	\$663	\$0

(1) Facilities that are certified under a Quality Assurance Program approved by the State Board or under a County regulatory program approved by the appropriate Regional Board, will receive a 50 percent fee reduction. Any facility that is issued a notice of violation by a Regional Board for an off-property discharge shall not be eligible to receive this fee reduction for a minimum of one billing cycle, and for all subsequent billing cycles until recertification and all corrective actions are complete as determined by the Regional Board.

(2) Facilities that pose no potential to discharge, as determined by a Regional Board, shall pay a fee of ~~\$455~~200. The fee shall be paid each time an application for initial certification or renewal is submitted.

## 20145-156 Fee Schedules

(3) Facilities that are required to submit a report of waste discharge (ROWD) while the facility is under construction and remains so subsequent to the billing cycle will have the annual fee waived until the facility is in operation and animals are present at the facility.

(4) Facility closures that are required to maintain a permit until all requirements are met shall continue to be assessed a fee based at the same rate as when the facility was in operation.

(5) Facilities with 0-49 mature dairy cattle shall pay an application fee for initial coverage and renewals of coverage under waste discharge requirements or waivers of waste discharge requirements of \$200. The fee shall be paid each time an application for coverage or report of waste discharge is submitted.

Note: Authority cited: Sections 185 and 1058 of the Water Code. Reference: Section 13260 of the Water Code.

### Section 2200.1.

The State Board shall notify each discharger annually of the fee to be submitted, the basis upon which the fee was calculated, and the date upon which the fee is due.

### Section 2200.2.

Persons proposing a new discharge shall submit to the State Board or Regional Board a report of waste discharge. Unless Section 2200 provides otherwise, or the discharger is specifically instructed otherwise by the State Board, a fee equal in amount to the annual fee based on the fee schedules in Section 2200 shall be submitted with the discharger's report of waste discharge. Except as otherwise provided in Section 2200, this fee shall serve as the first annual fee. If the submittal of this first annual fee does not coincide with the current fiscal year billing cycle, then the next, and only the next, fiscal year billing shall be adjusted to account for the payment of a full annual fee that accompanied the discharger's report of waste discharge. Persons proposing a material change in an existing discharge are not required to submit a fee with the report of waste discharge.

Note: Authority cited: Sections 185 and 1058 of the Water Code. Reference: Section 13260 of the Water Code.

### Section 2200.3.

Failure to pay the annual fee is a misdemeanor and will result in the State Board or Regional Board seeking the collection of fees through the enforcement provisions provided pursuant to Water Code Section 13261.

### Section 2200.4.

Any refund made pursuant to Water Code Section 13260(e) or for any other reason, shall withhold sufficient funds to cover actual staff time spent in reviewing the report of waste discharge, which shall be calculated using a rate of \$100.00 per hour.

Note: Authority cited: Sections 185 and 1058 of the Water Code. Reference: Section 13260 of the Water Code.



## 20145-156 Fee Schedules

### Section 2200.5. No Exposure Certification.

Dischargers filing an application for a No Exposure Certification (NEC) shall pay a fee of \$200 for each facility for which an application is submitted, as prescribed in a general industrial storm water permit. The fee shall be paid each time an application for initial certification or renewal is submitted. NEC fees are not subject to any surcharges.

Note: Authority cited: Sections 185 and 1058 of the Water Code. Reference: Section 13260.2 of the Water

### Section 2200.6. Annual Agricultural and Irrigated Lands Fee Schedule.

(a) Annual fees for waste discharge requirements and waivers of waste discharge requirements for discharges from agricultural lands,<sup>1</sup> including irrigated lands, shall be as follows:

(1) Tier I: If a discharger is a member of a group that has been approved by the State Board to manage fee collection and payment, then the fee shall be \$100 per group plus \$0.75 per acre of land.

(2) Tier II: If a discharger is a member of a group that has been approved by the State Board but that does not manage fee collection and payment, then the fee shall be \$100 per farm plus \$1.27 per acre of land.

(3)(A) Tier III: If a discharger is not a member of a group that has been approved by the State Board, the following fee schedule applies:

Acres	Fee Rate	Min Fee	Max Fee
0-10	\$404 + \$13.50/Acre	\$404	\$539
11-100	\$1,010 + \$6.70/Acre	\$1,084	\$1,680
101-500	\$2,692 + \$3.40/Acre	\$3,035	\$4,392
501 or More	\$5,384 + \$2.70/Acre	\$6,737	No Max Fee

(b) Upon approval by the Regional Board to join a group subject to waste discharge requirements or waivers of waste discharge requirements for discharges from agricultural lands, including irrigated lands, the discharger shall submit to the State Water Board an application fee, unless such fee is not required by the Regional Board. The application fee is a one-time fee of \$200 for dischargers that have received a written request to submit an application or report of waste discharge, and \$50 for all other dischargers. This application fee shall not apply to dischargers who were members of a group on or before June 30, 2008.

(c) For purposes of this section, the words "agricultural lands," "irrigated lands," "farm," and "discharger" have the meaning contained in the applicable Regional Board or State Board waste discharge requirements or waiver of waste discharge requirements for discharges from agricultural lands, including irrigated lands. These fees shall apply whether or not a regional board or the State Board has previously waived the payment of fees for the discharge of waste.

<sup>1</sup> As used in this section, the acreage on which the fee is based refers to the area that has been irrigated by the farmer or discharger at any time in the previous five years.

Note: Authority cited: Sections 185 and 1058 of the Water Code. Reference: Section 13269 of the Water Code.

## 20145-156 Fee Schedules

### Section 2200.7. Annual Fee Schedule for Marijuana Cultivation.

(a) Annual fees for waste discharge requirements and waivers of waste discharge requirements for discharges associated with marijuana cultivation shall be as follows:

(1) Category 1: If a discharger is not a member of a group that has been approved by the appropriate Regional Water Quality Control Board, the following fee schedule applies

Tier	Discharge Threat <sup>1</sup>	Annual Fee
1	Low Threat to Water Quality	\$1,000
2	Moderate Threat to Water Quality	\$2,500
3	Elevated Threat to Water Quality	\$10,000

(2) Category 2: If a discharger is a member of a group that has been approved by the appropriate Regional Water Quality Control Board, the following fee schedule applies:

Tier	Discharge Threat <sup>1</sup>	Annual Fee <sup>2</sup>
1	Low Threat to Water Quality	\$700
2	Moderate Threat to Water Quality	\$1,750
3	Elevated Threat to Water Quality	N/A

<sup>1</sup> As assigned by the appropriate Regional Water Quality Control Board

<sup>2</sup> Dischargers in Tier 3 may join a third-party group, but must pay the Category 1 fee unless the Regional Water Quality Control Board subsequently assigns the Discharger to a lower tier. Any Discharger that is required by the Regional Water Quality Control Board to take corrective action shall be subject to the fee schedule in Category 1 for a minimum of one billing cycle, and for all subsequent billing cycles until all corrective actions are complete as determined by the Regional Water Quality Control Board.

Note: Authority cited: Sections 185 and 1058 of the Water Code. Reference: Sections 13260 and 13269 of the Water Code.

### Section 2200.8. General Requirements for the Use of Recycled Water.

Any person who serves as an Administrator under a General Order authorizing the use of recycled water shall pay an annual fee in accordance with the threat/complexity ratings in Section 2200(a) for each recycled water program that the person administers. The first annual fee shall be submitted with the Notice of Intent to be covered by the General Order.

Note: Authority cited: Sections 185 and 1058 of the Water Code. Reference: Section 13260 of the Water Code.

### Section 2200.7-2200.9. Annual Fee Schedule for Waivers of Waste Discharge Requirements.

(a) Any person for whom waste discharge requirements have been waived pursuant to Section 13269 of the Water Code shall submit an annual fee to the State Board if a fee is specified for the waiver in this section. These fees shall apply whether or not a regional board or the State Board has previously waived the payment of fees for the discharge of waste.

(b) [reserved]

Note: Authority cited: Sections 185 and 1058 of the Water Code. Reference: Section 13269 of the Water Code.



# NATIONAL STEWARDSHIP ACTION COUNCIL

ADVOCATING FOR A CIRCULAR ECONOMY

For Immediate Release  
September 25, 2015

Contact: Bill Bradley  
(916) 213-5230  
bill@me-comm.com

## NEW ADVOCACY ORGANIZATION LAUNCHES!

### National Stewardship Action Council (NSAC) Forms to Promote a Circular Economy Through Producer Responsibility

*The NSAC is a Collaboration of Partners Across the United States Advocating for  
Sensible and Effective Product Stewardship Policies*

(Sacramento, CA) - While countries around the world discuss and transition to a “circular economy,” the concept is relatively new to the United States. The National Stewardship Action Council (NSAC) was created to push the U.S. in the direction of a **circular economy**, which is a generic term for an industrial economy that is, by design or intention, restorative and in which material flows are of two types, biological nutrients, designed to reenter the [biosphere](#) safely, and technical nutrients, which are designed to circulate at high quality without entering the biosphere. In short, a closed loop system where materials are all reused and recycled indefinitely.

Doug Kobold, Vice Chair of the California Product Stewardship Council explains why a new organization was formed: “With Extender Producer Responsibility (EPR) beginning to take hold on a national level, expertise in the drafting of laws governing EPR is greatly needed. NSAC, being born out of CPSC, in a state with the most EPR laws on the books today, stands poised to help stakeholders nationwide develop quality state and local laws that will be affordable, sensible, fair, effective, and enforceable. As President of NSAC, I am proud to be a part of this newly formed asset to the world of EPR and Product Stewardship.”

The National Stewardship Action Council is a powerful network of governments, non-government organizations, businesses, and individuals advocating for policies and projects where producers share in the responsibility for funding and managing problem products at end of life.

NSAC supports Extended Producer Responsibility (EPR) to conserve resources, reduce costs to local governments, create jobs in remanufacturing, and provide a circular economy. NSAC’s goal is to align public and private sectors through information and partnerships to implement and ensure sustainable recovery systems where producers have an appropriate level of sharing in the responsibility for those systems.

## NATIONAL STEWARDSHIP ACTION COUNCIL

---

One CPSC Board member resigned from the organization to become Secretary/Treasurer of NSAC: “We need the ability to advocate for producers sharing responsibility and I am proud to be playing a part in the start of the organization that will do just that,” said Patty Garbarino of Marin Sanitary Service. “I have been active for years trying to achieve zero waste, but we all know that until the products on the market are recyclable, there is only so much the waste management community can do to recycle and compost products designed for disposal.”

“I am very excited after eight years of leading CPSC to take that experience and move beyond primarily education about what producer responsibility means, to advocating nationally for this policy approach,” said Heidi Sanborn, Executive Director of NSAC.

For more information, contact Heidi Sanborn at (916) 402-3911 or visit our website at [www.NSAction.us](http://www.NSAction.us)

### **About NSAC**

NSAC was founded in 2015 as an affiliate of the California Product Stewardship Council (CPSC). CPSC, which is a 501(c)(3) environmental education and protection organization under IRS rules, may only conduct limited legislative lobbying activities. CPSC’s recent legislative successes in California have come with increasing demands from across the country for CPSC’s assistance, creating the need for an entity that can carry CPSC’s work forward without lobbying limits, and on a national scale. In contrast to CPSC, NSAC is a 501(c)(4) nonprofit organization that will engage primarily in lobbying and advocacy work for EPR and Product Stewardship, anywhere in the U.S. and at any level of government interested in EPR legislation. NSAC will also be able to become involved in elections for public office, should such activities be needed to further its mission.

### **NSAC’s Vision**

Be a catalyst to effect accountable, nation-wide, producer responsibility.

### **NSAC’s Mission**

Producers have the primary responsibility to establish, fund, and manage end of life systems for their products with governmental entities setting the performance goals, ensuring accountability and transparency, and driving green design. NSAC is to achieve these goals through an organization of broad stakeholder partners from both public and private interests.

**Mary Pitto**

---

**From:** cpsc-sharps-stewardship-listserv@googlegroups.com on behalf of Christopher Lester  
[chris@calpsc.org]  
**Sent:** Thursday, September 17, 2015 10:31 AM  
**To:** cpsc-sharps-stewardship-listserv@googlegroups.com  
**Subject:** CPSC Fall Newsletter

September 17, 2015

[View this email in your browser](#)



## *Fall 2015 Newsletter*



Facebook



Twitter



Email



LinkedIn

### Press & Awards

CPSC is promoting the good product stewardship displayed by [Flame King](#) and [Manchester Tank](#) with the new redesigned one-pound propane gas cylinders that can be refilled for 12 years! In July, we worked with the County of Santa Cruz to produce a Public Service Announcement (PSA) for the [ReFuel Your Fun](#) campaign starring California Secretary for Natural Resources John Laird and the Boy Scouts and Girl Scouts of Santa Cruz. The PSA was filmed at the iconic [Natural Bridges State Beach](#) to highlight the problem of one-pound disposable propane gas cylinders being left at state parks across the state costing \$1.25 per



# donate

Please make  
a tax deductible  
[donation](#) TODAY!

---

Connect on  
Social Media



[Facebook](#)  
[Twitter](#)



[Facebook](#)  
[Twitter](#)



[Facebook](#)

---

Thank You CPSC  
Supporters

cylinder to properly recycle.



The PSA is airing in the Central Coast media market in English and [Spanish language](#) versions. The PSA was developed with [CalRecycle](#) grant funding and is available to other local governments interested in broadcasting this commercial in their jurisdiction which can be customized to highlight locations to buy refillables for any California media market. Contact Christine Flowers ([Christine@calpsc.org](mailto:Christine@calpsc.org)) if you wish to use any of the campaign materials in your area or recruit retailers near you and like [ReFuel Your Fun](#) on Facebook for updates on the campaign and new locations to buy, refill and exchange refillable one-pound cylinders.

CPSC receives [North American Hazardous Materials Management Association](#) (NAHMMA) [Award](#) for Outstanding Policy Achievement in support of

California local government EPR actions.



WASTE CONNECTIONS INC.  
*Connect with the Future™*



2015 Arrow  
Award Winners

Sponsored By:



Celebratory Toast  
to Winners

Sponsored By:



*Pictured (L to R): Victoria L. Hodge, NAHMMA;  
CPSC Board Member Doug Kobold*

[The Challenges of Implementing EPR](#) - Heidi Sanborn,  
[Recycling Product News](#), September 2015

[Hundreds of Hypodermic Needles Appearing in Galt  
Garbage](#) - [CBS Sacramento](#), 9/3/2015

[California's 'Refuel Your Fun' initiative could ease  
problems at MRFs](#) - Linda Tufano, [Waste Dive](#), August  
2015

[California Adds Fourth R -- Refill -- to Keep Propane  
Tanks Out of the Trash](#) - Elizabeth McGowan, [Waste  
360](#), 8/24/2015

[Supreme Court Upholds the Alameda Ordinance that  
Producers Share in Responsibility for Product Waste:  
What Does That Mean for the Waste Industry?](#) - Heidi  
Sanborn, [Waste Advantage Magazine](#), August 2015

[The Evolution of EPR for Packaging in the US](#) - Matt



Golden Arrow Award  
Winner  
[Be Green Packaging](#)



*Pictured (L to R) – Ron Blitzer, Be Green Packaging; Lynn France, CPSC*



Green Arrow Award Winner  
[IPSEN Biopharmaceuticals](#)



*Pictured (L to R) – Creigh Hampel, CPSC; Cynthia Schwalm, IPSEN Biopharmaceuticals, inc.*



Bow & Arrow Award  
Winner  
[Kamps Propane](#)

Prindiville ([UPSTREAM](#)) and Heidi Sanborn, [PAC NEXT](#) EPR Updates: Canada & Europe, Summer 2015

## Locals Taking Action

### County of Santa Barbara

The Board of Supervisors voted unanimously to begin a stakeholder process on medicine disposal and return to the Board with recommendations at the October 6, 2015 Board of Supervisors meeting. Contact Erin Weber ([eweber@countyofsb.org](mailto:eweber@countyofsb.org)) with the Office of Supervisor Doreen Farr for more information.

### County of Los Angeles

The Board of Supervisors voted unanimously to direct County staff to begin a stakeholder process for development of an EPR ordinance for pharmaceuticals and medical sharps and return with a recommendation in February 2016. There will be a public stakeholder meeting on **Monday, September 28, 2015 from 1:30 PM - 4:30 PM** at the Kenneth Hahn Hall of Administration (500 W. Temple Street, Los Angeles). Contact Coby Skye ([CSkye@dpw.lacounty.gov](mailto:CSkye@dpw.lacounty.gov)) for more information.



### County of Santa Cruz

The Board of Supervisors voted unanimously at September 1, 2015 meeting to begin a stakeholder process for development of an EPR ordinance for pharmaceuticals and medical sharps and return to the





Infinity Arrow Award  
Winner  
[Cole Hardware](#)



CPSC congratulates the [Minnesota Product Stewardship Council](#) for development of their new website!

### Foster Dog Update



CPSC is happy to share that Rudy our most recent foster dog - found his

Board with recommendation. A public stakeholder meeting is scheduled for **Thursday, October 8, 2015 from 3:00 - 5:00 PM** at the Santa Cruz County Board of Supervisors Chambers (701 Ocean Street, Santa Cruz, CA). Contact Tim Goncharoff ([Tim.Goncharoff@santacruzcounty.us](mailto:Tim.Goncharoff@santacruzcounty.us)) for more information.

## International EPR Updates

Per Raymond Communications' [Recycling Laws International](#), these two programs were newsworthy:

The Portuguese Environment Agency extended [VALORMED](#)'s license as the pharmaceutical stewardship organization five additional years through 2020. Under the agreement VALORMED is required to:

1. Begin collecting drug packaging with a 20% by 2020 target
2. Launch a study on the feasibility of collecting packaging for veterinary medicines
3. Prepare a drug packaging waste prevention plan for the Environmental Agency to approve.

Proposed Hong Kong legislation would establish an EPR program for glass beverage containers, with producers required to:

1. Register with the Environmental Protection Department (EPD)
2. Pay a "container recycling levy" to the EPD

forever home in just two days. Miles who is 18 months old, is his new best friend and they can grow up happily together.

3. Submit annual audit reports to the EPD

## Upcoming Events



SWANA Webinar: [Local Government Tools to Drive Producer Responsibility](#) - 9/23 at 10:45 AM Pacific

[DEA National Prescription Drug Take-Back Day Events](#)  
- 9/26, 10:00 AM - 2 PM

[California League of Cities Annual Conference](#) - 9/30 -  
10/1, San Jose

[Conference on Canadian Stewardship](#) - 9/30 - 10/2,  
Banff, Canada

CRRA HHW Technical Council [Sharps Management Webinar](#) - Thursday, 10/8 at 10 AM Pacific

[Environmental Law Conference at Yosemite](#) - 10/22 -  
10/25, Tenaya Lodge at Yosemite

Copyright © 2015, California Product Stewardship Council. All rights reserved.

**Our mailing address is:  
California Product Stewardship Council  
1822 21st Street, Suite 100  
Sacramento, CA 95811**

To unsubscribe, email [Chris@calpsc.org](mailto:Chris@calpsc.org)

**Mary Pitto**

**From:** CARE California Carpet Stewardship Program [info@carpetrecovery.ccsend.com] on behalf of CARE California Carpet Stewardship Program [bjensen@carpetrecovery.org]  
**Sent:** Tuesday, September 29, 2015 1:19 PM  
**To:** Mary Pitto  
**Subject:** California Carpet Stewardship Program: September News



# California Carpet Stewardship Program

An initiative of CARE: Carpet America Recovery Effort

## California Carpet Stewardship Program

September 2015 Update

### Retailer Materials Available

CARE has produced and sent a window cling and a sample of a new brochure, "Carpet Recycling in California," to some 3,500 California retailers. The brochures inform customers about carpet recycling and about the stewardship assessment of \$.10 per square yard that all consumers must pay when purchasing carpet in the state.

Retailers may order brochures online at <https://carpetrecovery.org/ca-retailers/> or by emailing [CA@carpetrecovery.org](mailto:CA@carpetrecovery.org).



### New: Monthly Payouts to Processors

In an effort to improve timeliness of subsidy payments, the Program has adopted a new monthly reporting process for processors requesting subsidy payments. The change from quarterly payments is effective immediately, with the first monthly payment requests being accepted for the months of July and August through September 30. The first monthly payments are expected to be

issued in November, and on a monthly basis thereafter. This Program change is designed to support positive cash flow between reporting periods, and provide the Program with more regular and up-to-date indicators of Program performance.

## Market Development Update

CARE's California Business Development Consultant Mike Tinney (Tinney Associates), has been working with California-based tire processors to include waste carpet as a new raw material in their processing. Several successful tests run at West Coast Rubber Recycling in Hollister have established that waste carpet can be processed through existing tire shredding equipment. The processed carpet produces material with potential use in civil engineering projects as well as raw material filler in molded manufactured products.

More tests are underway by potential users of this material to determine manufacturing viability as well as the optimal finished product usage. Updates will follow in the coming months.

## Sales Tax Exemption for Recycling Equipment Passes CA Legislature

The California legislature has passed AB 199, which provides for a sales tax exemption on equipment used for recycling and composting, as well as equipment that uses recycled content - such as carpet -- in the manufacturing of new products. The bill now goes to the Governor's desk for signature.



[Forward this email](#)

 [SafeUnsubscribe](#)

This email was sent to mpitto@rcrcnet.org by [bjensen@carpetrecovery.org](mailto:bjensen@carpetrecovery.org) | [Update Profile/Email Address](#) | Rapid removal with [SafeUnsubscribe™](#) | [About our service provider](#)

Carpet America recovery Effort | 730 College Drive | Dalton | GA | 30720



PLANNING



ORGANIZING



MANAGING

Statewide mattress recycling programs in California, Connecticut and Rhode Island.

You are here: [Home](#) / [News & Information](#) / CalRecycle Approves MRC's Recycling Budget & Fee

## CalRecycle Approves MRC's Recycling Budget & Fee

OCTOBER 1, 2015

Today, the California Department of Resources Recycling and Recovery (CalRecycle) approved the budget fee that the Mattress Recycling Council (MRC) had proposed to fund its California Mattress Recycling Program (known to consumers as Bye Bye Mattress). MRC is a non-profit organization established by the mattress industry to create and administer a program to promote mattress recycling in the state. As a result of today's action, mattress retailers and other sellers must collect an \$11 recycling fee on each mattress or box spring sold to end-users. The fee will go into effect beginning December 30, 2015, and applies to all sales of new, used mattresses and box springs. For these purposes, a mattress and a box spring are each considered a separate unit. The fee must be collected on each unit.

To comply with this new law, both brick-and-mortar and online retailers selling mattresses in or into California must register at [www.MRCreporting.org](http://www.MRCreporting.org). This secure portal also allows retailers to submit monthly sales reports and collect recycling fees.

The fees will be used to fund mattress collection, transportation and recycling services throughout California.



program will also create a network of collection sites for California residents, hotels, universities, hospitals bases and will support a fund to help communities battle illegal dumping.

“Since the law passed two years ago, MRC has been building relationships with stakeholders to bring no-collection to communities throughout California,” said Ryan Trainer, president of Mattress Recycling Council International Sleep Products Association. “It’s exciting to see all of our planning come to fruition. We look forward to helping the state meet its recycling goals and provide Californians with an efficient and responsible way to discarded mattresses.”

MRC estimates that in the United States, at least 20 million mattresses and box springs are discarded each year as consumers replace their old mattress with a new one. This averages about 50,000 units per day.

In May, 2015, MRC launched the nation’s first Bye Bye Mattress recycling program in Connecticut and has collected over 50,000 units to date. Rhode Island has a similar law and expects its program to begin in the Spring of 2016. For more about these state programs, go to [www.mattressrecyclingcouncil.org](http://www.mattressrecyclingcouncil.org).

## FREQUENTLY ASKED QUESTIONS

**I am a mattress retailer and I want to become compliant with this new law and program. Where can I get help?**  
MRC has provided a toll-free support line, dedicated email, written guidelines and a step-by-step video to help the mattress industry with registering through [MRCreporting.org](http://MRCreporting.org).

– Toll-Free Support: 1-888-646-6815

– Support Email: [support@mattressrecyclingcouncil.org](mailto:support@mattressrecyclingcouncil.org)

– Written Guidelines & Video: [www.mattressrecyclingcouncil.org/resources](http://www.mattressrecyclingcouncil.org/resources)

### **Is the fee charged on other sleep products?**

The law defines a mattress as a new, used or renovated mattress or box spring. The term does not include mattress pad, mattress topper, sleeping bag, pillow, car bed, carriage, basket, dressing table, stroller, playpen, infant car seat, lounge pad, crib bumper, waterbed or camping-style air mattress, fold-out sofa bed or futon.

### **Do I include the fee on the sales receipt or customer invoice?**

Yes, the fee must be listed as a separate line item on the sales receipt or other sales documentation provided to the customer, and it must be described as “RECYCLING FEE.”

### **Is the fee subject to sales tax?**

Yes, the fee should be included in the total transaction amount that is subject to California sales tax.

### **Does MRC provide resources that will help me communicate this new law and fee to my customer?**

Yes. MRC has developed information cards, in-store posters and a customer FAQ document. Each is available in the resources area of [mattressrecyclingcouncil.org](http://mattressrecyclingcouncil.org). Information cards are provided at no-cost to every registered retailer (includes shipping and handling).

### **How can consumers recycle a mattress?**

Consumers will continue to dispose of mattresses through traditional methods, such as municipal collection or retailer take-back when a new mattress is delivered. These mattresses, which may have previously gone to landfills, will now be recycled. Consumers may also drop off discarded mattresses at designated recycling facilities at their local recycling center.

### **What happens to a recycled mattress?**

A mattress recycled through the Bye Bye Mattress program is deconstructed and broken into four main components: steel, foam, wood and fibers. These are used to make other new products like filters, automotive insulation padding and more.

**What types of mattresses will the California program accept for recycling?**

Any mattress or box spring discarded by California consumers and businesses is eligible for recycling. However, the program will not accept:

- Severely damaged, wet, twisted, frozen or soiled mattresses or box springs
- Mattresses or box springs infested with bed bugs
- Mattress pads or toppers
- Sleeping bags
- Pillows
- Car beds
- Juvenile products (i.e., carriage, basket, dressing table, stroller, playpen, infant carrier, lounge pad, or crib)
- Crib and bassinet mattresses
- Water beds or camping air mattresses
- Fold-out sofa beds
- Futons and furniture

**I'd like to recycle mattresses I collect from my customers through the program. How do I begin?**

Contact your program coordinator to discuss your expected mattress volume and logistical needs.

– Northern California: Mark Patti [mpatti@mattressrecyclingcouncil.org](mailto:mpatti@mattressrecyclingcouncil.org)

– Southern California: Rodney Clara [rclara@mattressrecyclingcouncil.org](mailto:rclara@mattressrecyclingcouncil.org)

*Share the knowledge!*



OCTOBER 1, 2015







**Mary Pitto**

**From:** Mattress Recycling Council [jspa@sleepproducts.ccsend.com] on behalf of Mattress Recycling Council [awall@mattressrecyclingcouncil.org]  
**Sent:** Monday, August 24, 2015 7:33 AM  
**To:** Mary Pitto  
**Subject:** MRC August Program Updates

Having trouble viewing this email? [Click here](#)  
You are receiving this email because you signed up to receive MRC Program Updates, are a registered participant on [mrcreporting.org](http://mrcreporting.org) or have expressed interest in becoming a collection site.

You may [unsubscribe](#) if you no longer wish to receive our emails.

## MRC Program Update



August 24, 2015

[\[ HOME \]](#) [\[ ABOUT \]](#) [\[ CONTACT \]](#)



### In This Issue

- [Missed our Las Vegas Market Seminar? View the Presentation](#)
- [MRC in the News: We're Making a Positive Impact in Connecticut](#)
- [Our Upcoming Events: Live Green CT! & California League of Cities](#)
- [Now Showing: New Video Explains Reporting & Fee Payment](#)
- [Resources for Mattress Retailers: Compliance & Customer Education](#)

---

### MRC Updates Las Vegas Market Attendees on Mattress Recycling Laws

Earlier this month at the Las Vegas Market, the Mattress Recycling Council (MRC) shared highlights of the program plans that it submitted to California and Rhode Island state authorities in July, provided updates on the implementation of Connecticut's program, and introduced new resources that MRC has developed to help the industry comply with the law and communicate with customers.

MRC anticipates California and Rhode Island will approve their respective plans by October 1. Pending that approval, MRC announced proposed recycling fees and start dates for the two programs. MRC proposes to launch the California program in January 2016 and set a recycling fee of \$11 per unit. In Rhode Island, the program is expected to start in February 2016, and the proposed fee is \$10 per unit.

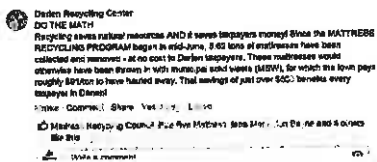
MRC emphasized that manufacturers and retailers of mattresses sold in all three states must register with MRC. Registration is easy and free. To help with this process, MRC introduced a new video series explaining how manufacturers and retailers can use [MRCreporting.org](http://MRCreporting.org)'s registration, reporting and payment features. MRC also highlighted the customer

communication materials that are now available - information cards, posters and Q&A - which are designed to help retailers explain the recycling programs to their customers.

To learn more, you may access the information presented during the seminar, as well as regular program updates, at [www.mattressrecyclingcouncil.org](http://www.mattressrecyclingcouncil.org). [View the presentation here.](#)

---

## MRC in the News: We're Making A Positive Impact in Connecticut



### Darien Recycling

Do the Math! Darien is finding out that Bye Bye Mattress is saving taxpayers hundreds of dollars each month.

[See their post here.](#)



### CT By the Numbers

A great recap of our progress in Connecticut.

[Read the full story.](#)



### CCSU Students

Students and staff at Central Connecticut State University used Bye Bye Mattress to recycle over 300 mattresses.

[See the story here.](#)

---

## Our Upcoming Events

## Live Green Connecticut!

September 19 and 20

Taylor Farm Park

45 Calf Pasture Beach Rd.

Norwalk, Conn.

[Event Website](#)

We're proud to serve as a silver sponsor at this year's event, which is a free family festival that brings together a wide variety of statewide 'green' information and resources. Visit us in the home improvement area to learn more about how Bye Bye Mattress works in Connecticut.

## California League of Cities Annual Conference

September 30 - October 2

San Jose Convention Center

150 W. San Carols Street

San Jose, Calif.

[Event Website](#)

Visit us in booth #436 to learn more about how MRC will implement the Used Mattress Recovery & Recycling Act. We submitted our plan to CalRecycle on July 1 and would be happy to discuss any questions you have about the program.

---

## Now Showing: How to Report & Remit Your Payments

We've added a new instructional video to our series that guides you through using the various functions found on [MRCreporting.org](http://MRCreporting.org).



Once you've successfully registered, you are able to use your created account to report and remit your recycling fees. See each step of the reporting and remittance process. Remember that reports and fees are due no later than 30 days following the end of the reporting period. [Watch it now!](#)

---

## For Mattress Retailers: Compliance & Customer Education Resources

### REGISTRATION ASSISTANCE



#### How to Register on MRCReporting.org

This video accompanies the written registration guidelines. Walk through the registration process step-by-step.

[View the video](#)

[Read the guidelines](#)

[Program FAQs](#)

Toll-Free Support: 1-888-646-6815

Email: [support@mattressrecyclingcouncil.org](mailto:support@mattressrecyclingcouncil.org)

 Follow @MattRecyCouncil for #FAQFriday!

## CUSTOMER EDUCATION

These resource are available to all our registered retailers at no cost. You are not required to use them. Contact Amanda Wall, MRC Marketing & Communications Coordinator, at [awall@mattressrecyclingcouncil.org](mailto:awall@mattressrecyclingcouncil.org) with any questions.



### Information Card

Include this with your customer's receipt or invoice to direct them to [byebyemattress.com](http://byebyemattress.com) for assistance with their fee and program related questions. We also have a recycling locator to help them find their nearest collection site or recycling facility.

The final piece is about the size of a smartphone or index card and is diecut with rounded corners. Actual size is 3.75 inches x 5 inches.

To place your **FREE** order, [register here](http://registerhere.org) or contact [awall@mattressrecyclingcouncil.org](mailto:awall@mattressrecyclingcouncil.org).

*There are no limits to the amount of pieces or requests. This is a free resource available to every registered retailer.*



### In-Store Posters Now Available

You are able to download and print this informational poster in three sizes.

8.5x11 inches (letter size)

11x17 inches (legal size)

24x36 inches (standard poster size)

### Download the Customer Q&A

This document can be used by your store management and staff to answer questions a customer might ask about the fee or the recycling program. It's meant to be a resource that you can put behind the counter or use in staff training/manuals. [Download it here.](#)

**Mary Pitto**

**From:** Mattress Recycling Council [jspa@sleepproducts.ccsend.com] on behalf of Mattress Recycling Council [awall@mattressrecyclingcouncil.org]  
**Sent:** Monday, September 28, 2015 11:01 AM  
**To:** Mary Pitto  
**Subject:** MRC September Program Updates

Having trouble viewing this email? [Click here](#)  
You are receiving this email because you signed up to receive MRC Program Updates, are a registered participant on mrcreporting.org or have expressed interest in becoming a collection site.

You may [unsubscribe](#) if you no longer wish to receive our emails.

## MRC Program Update



September 28, 2015

[ [HOME](#) ] [ [ABOUT](#) ] [ [CONTACT](#) ]



### In This Issue

- MRC in the News: [Radio PSA Launches in Connecticut](#)
- CT Program Notice: [Penalties on Late Payments Begin Oct. 1](#)
- CT Collection Sites: [Free Training on Bed Bug Management Practices](#)
- Upcoming Events: [Our Industry and Community Appearances](#)
- Retailer Resources: [Compliance & Customer Education](#)

### Bye Bye Mattress Hits the Airwaves: Radio PSA Launches in Connecticut

To bring more attention to Connecticut's program and build the Bye Bye Mattress brand, pre-recorded radio spots and live-read scripts were distributed to Connecticut radio stations this month.



**bye bye mattress**  
A Program of the Mattress Recycling Council

The radio spots will be complemented by print and outdoor advertisements and an online video.

[:30 Pre-recorded](#)

[:60 Pre-recorded](#)

Click to download and listen to each radio ad.

### CT Program Notice: Penalties on Late Payments Begin October 1

Beginning October 1, 2015, MRC will assess late fees on remittances made after the reporting and remitting deadline, as described in MRC's [Fee Policy](#).

**Late Fee Remittance**

*A Remitter that remits its Fees to MRC more than 30 days after the end of the Reporting Period will be assessed interest at a rate of 1% per month (compounded monthly), calculated as of the 31st day following the end of the Reporting Period.*

*A Remitter that is more than 90 days delinquent in remitting Fees to MRC may also be subject to additional monetary and other penalties at MRC's discretion. In addition, the State may assess additional monetary and other penalties.*

**Under Remittance**

*If the audit described in Section 7 above finds that a Remitter under-remitted Fees during one or more Reporting Periods being audited, the Remitter shall pay:*

- \* The full amount of under-remitted Fees;*
- \* Interest on the overdue Fees at the rate of 1% per month (compounded monthly);*
- \* If the amount under-remitted exceeds \$500, audit costs equal to the lesser of \$2,000 or 20% of the under-remitted Fees; and*
- \* Such additional penalties as might apply.*

If you have outstanding reports and payments, we urge you to use [www.mrcreporting.org](http://www.mrcreporting.org) to file your reports and make your payments prior to October 1, 2015, to avoid late fee assessments. Login with the account information you created during the registration process. Contact 1-888-646-6815 or [support@mattressrecyclingcouncil.org](mailto:support@mattressrecyclingcouncil.org) with any questions.

## **CT Collection Sites: Free Bed Bug Management Workshop**

### **Best Practices for Bed Bug Management of Used Mattress, Bedding & Upholstered Furniture**

**Thursday, October 29**

1:00-3:00 p.m.

Trash Museum

CT MIRA

211 Murphy Road

Hartford, CT

[Get Directions](#)

**Thursday, November 12**

1:00-3:00 p.m.

CT Ag Experiment Station

Jones Auditorium

123 Huntington Street

New Haven, CT

[Get Directions](#)

This free workshop is designed for reuse, resale, rental and recycling industries of Connecticut. Learn about self-protection, identification and appropriate management for bed bugs in industry settings. Certificate provided upon completion.

Presenters include:

Sherill Baldwin, CT Department of Energy and Environmental Protection

Dr. Gale E. Ridge, Entomologist, CAES and Chair CCABB

Donna Hunnewell, The Wish Project

Justine Fallon, Mattress Recycling Council

**Pre-registration is required.** To pre-register, please contact Gale Ridge at (203) 974-

8600 or [Gale.Ridge@ct.gov](mailto:Gale.Ridge@ct.gov)

---

## Our Upcoming Events

### Connecticut Lodging Association 111th Annual Dinner

September 29

Hartford/Windsor Marriott

28 Day Hill Rd.

Windsor, Conn.

### California League of Cities Annual Conference

September 30 - October 2

San Jose Convention Center

150 W. San Carols Street

San Jose, Calif.

[Event Website](#)

Visit us in booth #436 to learn more about how MRC will implement the Used Mattress Recovery & Recycling Act. We submitted our plan to CalRecycle on July 1 and would be happy to discuss any questions you have about the program.

### Connecticut Conference of Municipalities

October 20, 2015

Connecticut Convention Center

100 Columbus Drive, #400

Hartford, Conn.

[Event Website](#)

Visit us in booth #317 to learn more about how Bye Bye Mattress is helping Connecticut municipalities divert mattresses and box springs from landfills and combat illegal dumping.

---

## For Mattress Retailers: Compliance & Customer Education Resources

### REGISTRATION, REPORTING & PAYMENT ASSISTANCE



#### How to Use MRCReporting.org

This video series accompanies the written guidelines. Walk through the registration, reporting and payment processes step-by-step.

[View the videos](#)

[Read the guidelines](#)

[Program FAQs](#)

Toll-Free Support: 1-888-646-6815

Email: [support@mattressrecyclingcouncil.org](mailto:support@mattressrecyclingcouncil.org)



 Follow @MattRecyCouncil for #FAQFriday!

## CUSTOMER EDUCATION

These resource are available to all our registered retailers at no cost. You are not required to use them. Contact Amanda Wall, MRC Marketing & Communications Coordinator, at [awall@mattressrecyclingcouncil.org](mailto:awall@mattressrecyclingcouncil.org) with any questions.



### Information Card

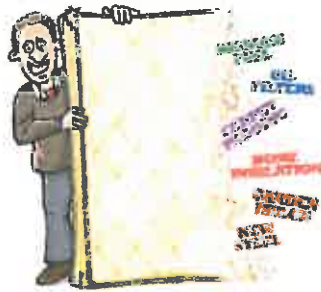
Include this with your customer's receipt or invoice to direct them to [byebyemattress.com](http://byebyemattress.com) for assistance with their fee and program related questions. We also have a recycling locator to help them find their nearest collection site or recycling facility.

The final piece is about the size of a smartphone or index card and is diecut with rounded corners. Actual size is 3.75 inches x 5 inches.

To place your FREE order, [register here](#) or contact [awall@mattressrecyclingcouncil.org](mailto:awall@mattressrecyclingcouncil.org).

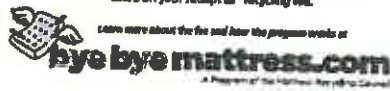
*There are no limits to the amount of pieces or requests. This is a free resource available to every registered retailer.*





**Rest easy and know  
that your old mattress  
is going to a better place.**

As of May 1, 2015, the state of Connecticut has implemented a mattress recycling program. A \$9 recycling fee will be associated on every mattress and box spring you purchase. It will be listed on your receipt as "recycling fee."



### **In-Store Posters Now Available**

You are able to download and print this informational poster in three sizes.

[8.5x11 inches](#) (letter size)

[11x17 inches](#) (legal size)

[24x36 inches](#) (standard poster size)

### **Download the Customer Q&A**

This document can be used by your store management and staff to answer questions a customer might ask about the fee or the recycling program. It's meant to be a resource that you can put behind the counter or use in staff training/manuals. [Download it here.](#)

**Mattress Recycling Council (MRC)** is a non-profit organization formed by the industry to operate recycling programs in states which have enacted mattress recycling laws. Connecticut's program launches on May 1, with California and Rhode Island expected to begin in 2016. Each state's program is funded by a recycling fee that is collected when a mattress or box spring is sold. The fees pay for the transportation and recycling of the mattresses.

[About MRC](#) | [Registration](#) | [MRC in Your State](#) | [Program Updates](#) | [Contact Us](#)

© 2015 Mattress Recycling Council. All Rights Reserved.

[Forward this email](#)

SafeUnsubscribe

This email was sent to [mpitto@rcrcnet.org](mailto:mpitto@rcrcnet.org) by [awall@mattressrecyclingcouncil.org](mailto:awall@mattressrecyclingcouncil.org) | [Update Profile/Email Address](#) | Rapid removal with [SafeUnsubscribe™](#) | [About our service provider.](#)



By It's Time to Stay

Mattress Recycling Council | 501 Wythe Street | Alexandria | VA | 22314



ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA  
DEL NORTE, EL DORADO, GLENN, IMPERIAL, INYO, LASSEN



MADERA, MARIPOSA, MODOC, MONO, NEVADA, PLUMAS,  
SIERRA, SISKIYOU, TEHAMA, TRINITY, TUOLUMNE

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY  
VICE CHAIR – BOB WILLIAMS, TEHAMA COUNTY  
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)  
TAG CHAIR – KRISTINA MILLER, TEHAMA COUNTY  
TAG VICE CHAIR – JIM MCHARGUE, AMADOR COUNTY  
PROGRAM MANAGER – MARY PITTO

## MEMORANDUM

**To: ESJPA Board of Directors**

**From: Larry Sweetser, ESJPA Consultant**

**Date: October 6, 2015**

**RE: ESJPA Grant Update**

### *Used Oil Grant*

The ESJPA provided assistance with the Mariposa County Fair which had 1,262 visitors to the County Used Oil booth.

### *Tire Amnesty Grant*

The 1<sup>st</sup> cycle Tire Amnesty grant is complete and the ESJPA is beginning planning for the next Amnesty event cycle serving Colusa, Inyo, Mariposa, Sierra, and Tuolumne counties. The grant will cover tire amnesty events through June 30, 2017.

### *USDA Training Assistance Grant*

Trainings under this grant are complete. The ESJPA conducted county hazardous waste trainings in Calaveras, Colusa, and Plumas Counties. The SWANA Manager of Landfill Operations training was conducted in Amador County on September 22<sup>nd</sup> through 24<sup>th</sup>. The training had to be moved from Calaveras County due to the recent fire. Environmental storm water sampling training was conducted in Amador and Tehama Counties. This grant has provided training opportunities in ESJPA member counties since later 2013.





## Monthly Public Meeting

### CalRecycle

10:00 A.M., September 15, 2015  
Cal/EPA Building – Byron Sher Auditorium

#### A. DIRECTOR'S REPORT

*Presentations or discussions by the Director and/or Executive Offices regarding department matters, legislative updates, public affairs or 75% initiative/legislative report.*

#### B. PUBLIC COMMENT\*

*People may speak on any matter concerning CalRecycle with the exception of items appearing elsewhere on this agenda or items related to pending adjudicative (certification or enforcement) proceedings.*

\*Please note that while CalRecycle affords members of the public the opportunity to participate by Webcast, CalRecycle strongly encourages public comments to be made in person.

#### C. BEVERAGE CONTAINER RECYCLING PROGRAM

*Possible decisions or announcements regarding BCRP matters including fund condition, rates, approval of new/renewed certifications, or enforcement actions.*

##### Action Items

No actions at this time

##### Information Items

1. Quarterly Report on the Status of the Beverage Container Recycling Fund  
Update on the Status of the Beverage Container Recycling Program and the "Quarterly Report" that CalRecycle prepares for the Legislature every calendar quarter. This report will cover program updates as well as the status of the Recycling Fund Balance, forecast for future Fund Balances and the Department estimates on when Proportional Reductions may be implemented.  
Department Staff Contact: [Mike.Miller@CalRecycle.ca.gov](mailto:Mike.Miller@CalRecycle.ca.gov)
2. Update on the Quality Incentive Payments for 2015.  
The Quality Incentive Payment (QIP) program is designed to improve the quality and marketability of empty glass beverage containers collected throughout the state for recycling. Pursuant to Public Resources Code (PRC) Section 14549.1 as amended by the passage of Assembly Bill 3056, the Recycling Division makes payments to eligible participants who sort and/or clean empty glass beverage containers. Recycling Division may expend up to \$10 million annually for QIP payments.  
Department Staff Contact: [Hieu.Le@CalRecycle.ca.gov](mailto:Hieu.Le@CalRecycle.ca.gov)

3. **Announcement of BCRP Statewide Rate Determination Study Workshop**  
 CalRecycle will hold a workshop on October 30, 2015 at 9a.m. to discuss the methodology used to conduct the statewide segregated and commingled rate studies. As required by law, CalRecycle will, through the workshop, consult with private and public operators of curbside, drop-off or collection, community service, recycling center, and reverse vending machine programs regarding the size of the statewide sample, appropriate sampling methodologies and alternatives to exclusive reliance on a statewide commingled rate. The study methodology used by CalRecycle will be presented in detail, and participants' comments and questions will be addressed.  
 Department Staff Contact: [Michael.Vanderburg@CalRecycle.ca.gov](mailto:Michael.Vanderburg@CalRecycle.ca.gov)
  
4. **Announcement of BCRP Statewide Public Hearing Regarding 2015 Rate Adjustment**  
 As required by law, CalRecycle will hold a public hearing to review rate adjustments on October 30, 2015 at 10:30a.m. The hearing will detail the mid-year adjustment to the statewide segregated and commingled rates, which will become effective on January 1, 2016. Summarized documentation of study data supporting our review of the new statewide commingled rates will be available. There will also be an opportunity for interested parties to ask any questions regarding the recalculation of the statewide commingled rates.  
 Department Staff Contact: [Michael.Vanderburg@CalRecycle.ca.gov](mailto:Michael.Vanderburg@CalRecycle.ca.gov)

**D. ELECTRONIC WASTE RECYCLING PROGRAM**

*Possible decisions or overview regarding the reuse, recycling, and handling of covered electronic devices; including matters related to fees, recyclers, enforcement, claim reviews and adjustments.*

**Action Items**

No actions at this time

**Information Items**

Nothing to report at this time

**E. LOCAL ASSISTANCE**

*Possible approval or discussion of locally adopted planning documents, bi-annual reviews, compliance and enforcement actions, or other program-related proceedings.*

**Action Items**

No actions at this time

**Information Items**

Nothing to report at this time

**F. GRANT AND LOAN PROGRAMS**

*Possible decisions or overview regarding matters related to the used oil and household hazardous waste programs.*

**Action Items**

1. Eligibility Criteria, Evaluation Process and Award Amounts for the Rubberized Pavement Grant Program (Tire Recycling Management Fund, FYs 2015-16 and 2016-17)

Department Staff Contact: [Loreto.Tamondong@CalRecycle.Ca.Gov](mailto:Loreto.Tamondong@CalRecycle.Ca.Gov)

[Public Notice](#)

2. Eligibility Criteria and Evaluation Process for the Tire-Derived Aggregate Grant Program (Tire Recycling Management Fund, FY 2015–16 and 2016–17)  
Department Staff Contact: [Loreto.Tamondong@CalRecycle.Ca.Gov](mailto:Loreto.Tamondong@CalRecycle.Ca.Gov)  
[Public Notice](#)

#### **Information Items**

1. Awards and Distribution of Payments for the City/County Payment Program (California Beverage Container Recycling Fund, FY 2014-15)  
Department Staff Contact: [Shamila.Tooker@CalRecycle.Ca.Gov](mailto:Shamila.Tooker@CalRecycle.Ca.Gov)  
[Public Notice](#)
2. Recycling Market Development Zone Loan for U.S. Corrugated of Los Angeles, Inc. (Recycling Market Development Revolving Loan Subaccount, FY 2015/16)  
Department Staff Contact: [Tim.Brannan@CalRecycle.Ca.Gov](mailto:Tim.Brannan@CalRecycle.Ca.Gov)  
[Public Notice](#)
3. Recycling Market Development Zone Loan for eco.logic brands inc. (Recycling Market Development Revolving Loan Subaccount, FY 2015/16)  
Department Staff Contact: [Shirley.Hom@CalRecycle.Ca.Gov](mailto:Shirley.Hom@CalRecycle.Ca.Gov)  
[Public Notice](#)

#### **G. SOLID WASTE AND TIRE FACILITIES**

*Possible decisions or reconsiderations to petitions for a facility or landfill permit or modification; and, possible determinations of enforcement actions, clean-up requirements; or LEA training.*

#### **Action Items**

1. Golden By-Products – Merced County, Major Waste Tire Facility Permit, Action Needed September 11, 2015  
Department Staff Contact: [Margaret.Comotto@CalRecycle.ca.gov](mailto:Margaret.Comotto@CalRecycle.ca.gov)  
[Public Notice](#)
2. Shoreway Environmental Center – San Mateo County, Modified Solid Waste Facilities Permit, Action Needed October 11, 2015  
Department Staff Contact: [Reinhard.Hohlwein@CalRecycle.ca.gov](mailto:Reinhard.Hohlwein@CalRecycle.ca.gov)  
[Public Notice](#)
3. Walker Landfill – Mono County, Modified Solid Waste Facility Permit, Action Needed October 26, 2015  
Department Staff Contact: [Christine.Karl@CalRecycle.ca.gov](mailto:Christine.Karl@CalRecycle.ca.gov)  
[Public Notice](#)
4. Waste Recovery West, Inc. - San Joaquin County, Major Waste Tire Facility Permit, Action Needed November 4, 2015  
Department Staff Contact: [Christine.Karl@CalRecycle.ca.gov](mailto:Christine.Karl@CalRecycle.ca.gov)  
[Public Notice](#)

#### **Information Items**

1. Approval of the Old Red Bluff Landfill (Facility No. 52-CR-0001) Remediation Under the Solid Waste Disposal and Codisposal Site Cleanup Program (Solid Waste Disposal Trust Fund)  
Department Staff Contact: [Stephanie.Young@CalRecycle.ca.gov](mailto:Stephanie.Young@CalRecycle.ca.gov)  
[Public Notice](#)

## H. POLICY MANDATES/WORKSHOPS/RULEMAKING PROCEEDINGS

*Possible decisions or discussions by department staff regarding any order instituting a rulemaking proceeding to develop and adopt regulations and/or policy guidelines specifying the procedures to implement or revise program guidelines or requirements such as Product Stewardship, Commercial Recycling, Organics Roadmap or the 75% initiative.*

### Action Items

1. Consideration of Approval of Annual CalRecycle Architectural Paint Stewardship Administrative Fees, July 1, 2014- June 30, 2015  
Department Staff Contact: [Allyson.Williams@CalRecycle.Ca.Gov](mailto:Allyson.Williams@CalRecycle.Ca.Gov)  
[Public Notice](#)
2. Consideration of the California Used Mattress Recovery and Recycling Plan, Budget, and Notice of Exemption  
Department Staff Contact: [Ashley.Harley@CalRecycle.Ca.Gov](mailto:Ashley.Harley@CalRecycle.Ca.Gov)  
[Public Notice](#)
2. Consideration of the Carpet America Recovery Effort 2014 Annual Report  
Department Staff Contact: [Kathy.Frevert@CalRecycle.Ca.Gov](mailto:Kathy.Frevert@CalRecycle.Ca.Gov)  
[Public Notice](#)

### Information Items

1. Synthetic Turf Study Public Workshop - Northern California  
Date to be determined -  
Department Staff Contact: [Robert.Carlson@CalRecycle.Ca.Gov](mailto:Robert.Carlson@CalRecycle.Ca.Gov)
2. Synthetic Turf Study Public Workshop - Southern California  
Date to be determined -  
Department Staff Contact: [Robert.Carlson@CalRecycle.Ca.Gov](mailto:Robert.Carlson@CalRecycle.Ca.Gov)
3. Synthetic Turf Study Public Workshop – Webinar  
Date to be determined -  
Department Staff Contact: [Robert.Carlson@CalRecycle.Ca.Gov](mailto:Robert.Carlson@CalRecycle.Ca.Gov)
4. CalRecycle Packaging Workshop: Manufacturers' Challenge  
**Please Note: New Time and Date**  
**November 18, 2015 9:00AM – 4:00PM**  
Department Staff Contact: [Cynthia.Dunn@CalRecycle.Ca.Gov](mailto:Cynthia.Dunn@CalRecycle.Ca.Gov)  
[Public Notice](#)

## I. OTHER

*Possible decisions or discussions regarding the development or implementation of a new or an amendment to policies and procedures for grants, loans and contracts. Please note that grants, loans, or scopes of work will be agendaized specific to program area unless otherwise noted here.*

### Action Items

No actions at this time

### Information Items

Nothing to report at this time



**J. COMPLIANCE AND ENFORCEMENT HEARINGS**

*Hearings for Compliance and Enforcement matters and Administrative Appeals which are required to have a public hearing prior to the Department taking action*

**Action Items**

No actions at this time

**Information Items**

Nothing to report at this time

---

We want to assure all of our stakeholders that transparency and stakeholder involvement remains a high priority for CalRecycle. In keeping with a history of providing stakeholders with information about programs, activities, and departmental decisions, CalRecycle has a public noticing site. To review Final CalRecycle Decisions and other department activities, please go to: <http://www.calrecycle.ca.gov/Actions/> or <http://www.calrecycle.ca.gov/BevContainer/Notices>. For meeting participation, listserv, and feedback information, please go to: <http://www.calrecycle.ca.gov/PublicMeeting/>.





## Monthly Public Meeting

### CalRecycle

10:00 A.M., October 20, 2015  
Cal/EPA Building – Byron Sher Auditorium

#### A. DIRECTOR'S REPORT

*Presentations or discussions by the Director and/or Executive Offices regarding department matters, legislative updates, public affairs or 75% initiative/legislative report.*

#### B. PUBLIC COMMENT\*

*People may speak on any matter concerning CalRecycle with the exception of items appearing elsewhere on this agenda or items related to pending adjudicative (certification or enforcement) proceedings.*

\*Please note that while CalRecycle affords members of the public the opportunity to participate by Webcast, CalRecycle strongly encourages public comments to be made in person.

#### C. POLICY MANDATES/WORKSHOPS/RULEMAKING PROCEEDINGS

*Possible decisions or discussions by department staff regarding any order instituting a rulemaking proceeding to develop and adopt regulations and/or policy guidelines specifying the procedures to implement or revise program guidelines or requirements such as Product Stewardship, Commercial Recycling, Organics Roadmap or the 75% initiative.*

##### Action Items

1. Consideration of Approval on the Amendment to the California Carpet Stewardship Plan  
Department Staff Contact: [Kathy.Frevert@CalRecycle.Ca.Gov](mailto:Kathy.Frevert@CalRecycle.Ca.Gov)  
Public Notice

##### Information Items

1. Highlights of the Facility-Based Portion of CalRecycle's 2014 Waste Characterization Study  
Department Staff Contact: [Nancy.Carr@CalRecycle.ca.gov](mailto:Nancy.Carr@CalRecycle.ca.gov)
2. Synthetic Turf Study Public Workshop - Berkeley  
November 2, 2015 6:00PM – 8:30PM  
Department Staff Contact: [Robert.Carlson@CalRecycle.ca.gov](mailto:Robert.Carlson@CalRecycle.ca.gov)  
Public Notice
3. Synthetic Turf Study Public Workshop – San Diego  
November 12, 2015 6:00PM – 8:30PM  
Department Staff Contact: [Robert.Carlson@CalRecycle.ca.gov](mailto:Robert.Carlson@CalRecycle.ca.gov)  
Public Notice
4. Synthetic Turf Study Public Workshop – Webinar  
November 16, 2015 1:00PM – 4:00PM  
Department Staff Contact: [Robert.Carlson@CalRecycle.ca.gov](mailto:Robert.Carlson@CalRecycle.ca.gov)  
Public Notice

5. CalRecycle Packaging Workshop: Manufacturers' Challenge  
**Please Note: New Time and Date**  
**January 5th, 2015 9:00AM – 4:00PM**  
 Department Staff Contact: [Cynthia.Dunn@CalRecycle.ca.gov](mailto:Cynthia.Dunn@CalRecycle.ca.gov)  
Public Notice
6. Status of Quarterly Disposal Report Submittals for the Second Quarter of 2015, and the status of submittals for the 2014/2015 Quarterly Station Notification Reports.  
 Department Staff Contact: [Peter.Staklis@CalRecycle.ca.gov](mailto:Peter.Staklis@CalRecycle.ca.gov)

#### **D. BEVERAGE CONTAINER RECYCLING PROGRAM**

***Possible decisions or announcements regarding BCRP matters including fund condition, rates, approval of new/renewed certifications, or enforcement actions.***

##### **Action Items**

No actions at this time

##### **Information Items**

1. Recycling Program Certification & Registration Report  
 Quarterly Report on Branch workload metrics and key data.  
 Department Staff Contact: [George.Donkor@CalRecycle.ca.gov](mailto:George.Donkor@CalRecycle.ca.gov)
2. Recycling Program Enforcement Report  
 Quarterly Report on the Branch activities, including Probationary Reviews, Inspections, Investigations completed, and accusations filed. Updates will also be provided on Department of Justice/Office of the Attorney General interagency activities.  
 Department Staff Contact: [John.Halligan@CalRecycle.ca.gov](mailto:John.Halligan@CalRecycle.ca.gov)
3. Recycling Program Operations Report  
 Quarterly Report on the Branch activities will include a summary of Rate Determination Studies statistics, Market Information and Statistics and Update on Plastic Market Development Program for 2014.  
 Department Staff Contact: [Mike.Miller@CalRecycle.ca.gov](mailto:Mike.Miller@CalRecycle.ca.gov)
4. Review of Biannual Report of Beverage Container Sales, Returns, Redemption, and Recycling Rates  
 Department Staff Contact: [Mike.Miller@CalRecycle.ca.gov](mailto:Mike.Miller@CalRecycle.ca.gov)

#### **E. ELECTRONIC WASTE RECYCLING PROGRAM**

***Possible decisions or overview regarding the reuse, recycling, and handling of covered electronic devices; including matters related to fees, recyclers, enforcement, claim reviews and adjustments.***

##### **Action Items**

No actions at this time

##### **Information Items**

Nothing to report at this time

#### **F. LOCAL ASSISTANCE**

***Possible approval or discussion of locally adopted planning documents, bi-annual reviews, compliance and enforcement actions, or other program-related proceedings.***

##### **Action Items**

No actions at this time

**Information Items**

Nothing to report at this time

**G. GRANT AND LOAN PROGRAMS**

***Possible decisions or overview regarding matters related to the used oil and household hazardous waste programs.***

**Action Items**

No actions at this time

**Information Items**

1. Awards for the Farm and Ranch Solid Waste Cleanup and Abatement Grant Program (Farm and Ranch Solid Waste Cleanup and Abatement Account, FY 2015–16)  
Department Staff Contact: [Carla.Repucci@CalRecycle.ca.gov](mailto:Carla.Repucci@CalRecycle.ca.gov)  
Public Notice
2. Awards and Distribution of Payments for the Used Oil Payment Program (Used Oil Recycling Fund, FY 2015/16)  
Department Staff Contact: [Baljot.Biring@CalRecycle.ca.gov](mailto:Baljot.Biring@CalRecycle.ca.gov)  
Public Notice
3. Eligibility, Scoring Criteria, and Evaluation Process for the Greenhouse Gas Reduction Revolving Loan Program (Greenhouse Gas Reduction Revolving Loan Fund, FY 2015–16)  
Department Staff Contact: [Jim.LaTanner@CalRecycle.ca.gov](mailto:Jim.LaTanner@CalRecycle.ca.gov)  
Public Notice

**H. SOLID WASTE AND TIRE FACILITIES**

***Possible decisions or reconsiderations to petitions for a facility or landfill permit or modification; and, possible determinations of enforcement actions, clean-up requirements; or LEA training.***

**Action Items**

1. Golden By-Products Inc. - Merced County, New Major Waste Tire Facility Permit, Action Needed Oct 26, 2015  
Department Staff Contact: [Margaret.Comotto@CalRecycle.ca.gov](mailto:Margaret.Comotto@CalRecycle.ca.gov)  
Public Notice
2. Walker Landfill – Mono County, Modified Solid Waste Facility Permit, Action Needed October 26, 2015  
Department Staff Contact: [Christine.Karl@CalRecycle.ca.gov](mailto:Christine.Karl@CalRecycle.ca.gov)  
Public Notice
3. California Waste Services – Los Angeles County, Modified Solid Waste Facilities Permit, Action Needed November 2, 2015  
Department Staff Contact: [Shannon.Hill@CalRecycle.ca.gov](mailto:Shannon.Hill@CalRecycle.ca.gov)  
Public Notice
4. Waste Recovery West, Inc. – San Joaquin County, Major Waste Tire Facility Permit, Action Needed November 4, 2015  
Department Staff Contact: [Nevin.Yeates@CalRecycle.ca.gov](mailto:Nevin.Yeates@CalRecycle.ca.gov)  
Public Notice

5. California Waste Recovery Systems – Sacramento County, Revised Solid Waste Facilities Permit, Action Needed November 28, 2015  
Department Staff Contact: [Nicholas.Oliver@CalRecycle.ca.gov](mailto:Nicholas.Oliver@CalRecycle.ca.gov)  
Public Notice
6. Lovelace Transfer Station – San Joaquin County, Revised Solid Waste Facilities Permit, Action Needed November 28, 2015  
Department Staff Contact: [Christine.Karl@CalRecycle.ca.gov](mailto:Christine.Karl@CalRecycle.ca.gov)  
Public Notice

**Information Items**

1. Waste Tire Enforcement Report  
Department Staff Contact: [Bill.Albert@CalRecycle.ca.gov](mailto:Bill.Albert@CalRecycle.ca.gov)

**I. OTHER**

*Possible decisions or discussions regarding the development or implementation of a new or an amendment to policies and procedures for grants, loans and contracts. Please note that grants, loans, or scopes of work will be agendized specific to program area unless otherwise noted here.*

**Action Items**

No actions at this time

**Information Items**

**J. COMPLIANCE AND ENFORCEMENT HEARINGS**

*Hearings for Compliance and Enforcement matters and Administrative Appeals which are required to have a public hearing prior to the Department taking action*

**Action Items**

No actions at this time

**Information Items**

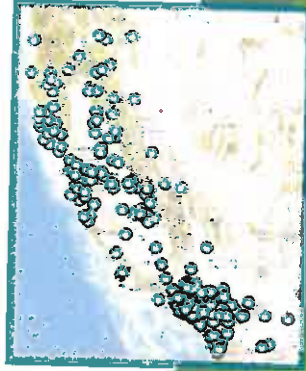
Nothing to report at this time

---

We want to assure all of our stakeholders that transparency and stakeholder involvement remains a high priority for CalRecycle. In keeping with a history of providing stakeholders with information about programs, activities, and departmental decisions, CalRecycle has a public noticing site. To review Final CalRecycle Decisions and other department activities, please go to: <http://www.calrecycle.ca.gov/Actions/> or <http://www.calrecycle.ca.gov/BevContainer/Notices>. For meeting participation, listserv, and feedback information, please go to: <http://www.calrecycle.ca.gov/PublicMeeting/>.

## Where to Recycle Map

An interactive mapping tool designed to show where recycling facilities for 14 material types are located throughout California



## Thank You!

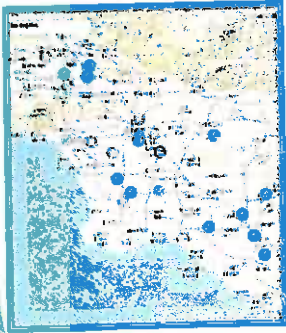
- ▶ **Executive Team:** Elliot Block, Ken DaRosa, Mark de Bie, Bryan Ehlers, Tom Estes, Christine Hironaka, Howard Levenson, Mark Oldfield, Scott Smithline
- ▶ **CalRecycle Staff:** Knowledge Integration Section, Information Technology, Office of Public Affairs, Local Assistance and Market Development
- ▶ **Special Thanks:**
  - ▶ Evan Levy
  - ▶ Mike Tuck

## Materials Symbols



## Additional Information

- ▶ Data will be updated and maintained as the tool is used
- ▶ If users find facility information that needs to be updated please contact [FacIT@calrecycle.ca.gov](mailto:FacIT@calrecycle.ca.gov)
- ▶ CalRecycle staff can add features and make adjustments to the tool as necessary
- ▶ Office of Public Affairs will receive comments and questions from users
  - ▶ (916) 341-6300
  - ▶ [opa@calrecycle.ca.gov](mailto:opa@calrecycle.ca.gov)



## Demonstration

- ▶ The map is located here:  
<http://www.calrecycle.ca.gov/Recycle/Maps/>
- ▶ Link from the CalRecycle home page:  
<http://www.calrecycle.ca.gov/>
- ▶ Link from the Recycle webpage:  
<http://www.calrecycle.ca.gov/Recycle/>





**Mary Pitto**




**From:** Institute for Local Government [info=ca-ilg.org@mail205.atl21.rsgsv.net] on behalf of Institute for Local Government [info@ca-ilg.org]  
**Sent:** Thursday, August 27, 2015 3:24 PM  
**To:** Mary Pitto  
**Subject:** News from ILG - ILG's 60th Anniversary, New Recycling Resources and More!



**News from the Institute for Local Government  
August 2015**

## **Celebrating 60 Years of Service to California's Local Governments**

This year ILG celebrates our 60th anniversary. The occasion offers a chance to reflect on our history of promoting good government at the local level and look to our future in helping create opportunities and establish partnerships that support the work of local agencies throughout California. [Find out more about our past, present and future!](#)

-  Website
-  Facebook
-  Twitter
-  LinkedIn



The Beacon Program welcomes a participant! [The City of National City](#) joined the Program in August. [Learn more about the Beacon Program here.](#)

---

## **Cities Counties and Schools Collaborating for Children and**

## Youth

The Leadership Council of the Cities Counties Schools Partnership (League of California Cities, California State Association of Counties and the California School Boards Association) met today to plan for 2015-16 and discuss important community and governance challenges where the Institute for Local Government may work with officials to inform, educate and inspire local collaboration. Additionally, the California School Boards Association spoke about the implementation of the Local Control Funding Formula, including their online [LCFF Toolkit](#), and how school board members can make LCFF and Local Control Accountability information accessible to fellow city and county officials.

[Find out more about the CCS Partnership.](#)

---

## New Recycling Resources

ILG continues to add to our recycling resource center. It includes resources, webinars and case stories to help local governments finance and site recycling projects and programs in their community. Topics range from anaerobic digestion to permitting requirements and CEQA compliance, among others. New resources added this month include:

[Recycling Roadmap](#) - which provides a brief overview of the typical steps to plan, site and finance

### 2016 Public Sector Employment Law Conference

ILG partner Liebert Cassidy Whitmore has announced registration for their 2016 Public Sector Employment Law Conference is now open! The conference will take place February 24-26 and will feature over 20 presentations on a variety of imperative labor and employment law topics [Register now.](#)

### Let's Get Healthy California

The California Health and Human Services Agency (CHHS) and the California Department of Public Health (CDPH) invite local agencies to participate in the Let's Get Healthy California "Innovation Challenge" to engage and empower people to work together toward improving the health of their

a public or private facility to process and reuse recycled materials; and

[The True Cost of Recycling: How California Communities are Financing and Siting Recycling Infrastructure](#) - a compilation of case stories illustrating how California communities are financing and siting recycling infrastructure and advice and lessons learned from across the state.

[Access the full Recycling Resource Center here.](#)

---

## Increasing Access to Public Meetings

Meetings are central to democratic decision-making. Leaders can increase the effectiveness of public meetings with thoughtful advance planning and by taking a few simple steps. There are many barriers to access that may prevent people with disabilities from contributing to civic engagement activities, but there are steps that jurisdictions can take to ensure more equitable access to public meetings and events. [ILG's tipsheet](#) provides general guidelines for increasing access and ensuring your meeting or event is accessible. Service animals, cane and wheelchair access, and effective communication are a few of the items covered.

Increasing accessibility takes work, but being thoughtful and deliberate about doing so will allow a

community and the state. [Submit your application here.](#)

### Cool California Challenge

Cities throughout California are invited to sign up now through Aug. 31 to participate in the statewide Cool California Challenge, a community-based competition to cut carbon emissions. The competition aims to enlist cities to engage households and community groups across the state to reduce household energy and water use, reduce transportation-related emissions, and create more vibrant and sustainable communities. [Find out more.](#)

jurisdiction to effectively include this important, yet often overlooked, segment of the population.

For more resources of effective public meetings, [visit our Meeting Resource Center here.](#)

---

## Support the Institute

Help support the work of the Institute. ILG relies on the generosity of individuals, organizations and businesses in order to continue to promote good government at the local level and serve local governments and their communities each year. Help us continue to do this work by making a tax-deductible donation today! The easiest way to donate is online by clicking the donate button on the [homepage](#), or you can contact ILG at 916-658-8208 or by [email](#).



---

*Copyright © 2015 Institute for Local Government, All rights reserved.*

You are receiving this e-mail because signed up at our website: Institute for Local Government. If you did not sign up, or you are receiving this message in error, please contact us so we can promptly resolve the problem.

**Our mailing address is:**  
Institute for Local Government  
1400 K Street  
Suite 205  
Sacramento, CA 95814

[Add us to your address book](#)

[unsubscribe from this list](#) [update subscription preferences](#)

*It's free*

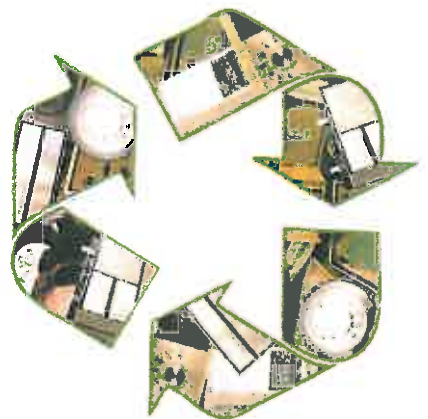
- There's no charge to you.

*It's easy*

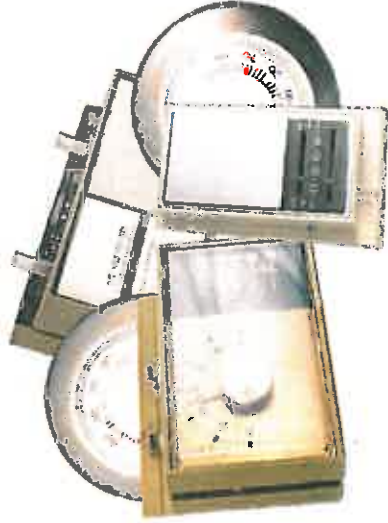
- Store used mercury-switch thermostats safely once removed from service.
- Bring the used thermostats to a participating HHW facility to recycle.
- TRC requires no paperwork nor tracking for homeowners.

*It's the right thing to do*

- By recycling used mercury-switch thermostats, you help ensure a cleaner environment for all of us. One mercury thermostat contains at least 1,000 times more mercury than a compact fluorescent light bulb.



*Recycle Mercury  
Thermostats For Free*



Instead of storing old mercury thermostats or tossing them in the trash, contact your local Household Hazardous Waste facility to see how easily you can dispose of mercury containing thermostats, **at no cost to you.**

Visit our website or give us a call for a list of participating collection sites.

[thermostat-recycle.org](http://thermostat-recycle.org) | 1-888-266-0550  
[trc@thermostat-recycle.org](mailto:trc@thermostat-recycle.org)



[thermostat-recycle.org](http://thermostat-recycle.org) | 1-888-266-0550  
[trc@thermostat-recycle.org](mailto:trc@thermostat-recycle.org)



## Frequently Asked Questions

### What is the purpose of the Thermostat Recycling Corporation (TRC) program?

The goal is to recycle all mercury containing thermostats that are replaced.

### What should I do?

Drop your mercury thermostats off at your local HHW facility.

### What thermostats can I recycle?

All brands of wall-mounted, mercury switch thermostats.

### Which HHWs participate?

You'll find the recycling bins at hundreds of locations across the nation. View a list of participating collection sites at [thermostat-recycle.org](http://thermostat-recycle.org).

### How do I know if the thermostat contains mercury?

If the thermostat uses a dial or lever, odds are it contains mercury and needs to be recycled.



Look for the mercury switch inside.



### Should I take out the mercury switch?

No. Return the entire thermostat intact, including the cover. The thermostat casing protects the mercury switch during shipment.

### What's not accepted under TRC's program?

- Loose mercury switches (bulbs)
- Leaking mercury-switch thermostats
- Electronic thermostats and other thermostats without mercury switches
- Batteries, fluorescent light bulbs and other devices containing mercury

### How are thermostats collected?

HHW facilities and HVAC wholesale distributors place recycling bins in their locations. Retailers collect thermostats directly from customers. Contractors and homeowners collect out-of-use mercury thermostats through their normal business and can drop them off for collection at any location.

### What happens after I drop of the old thermostats?

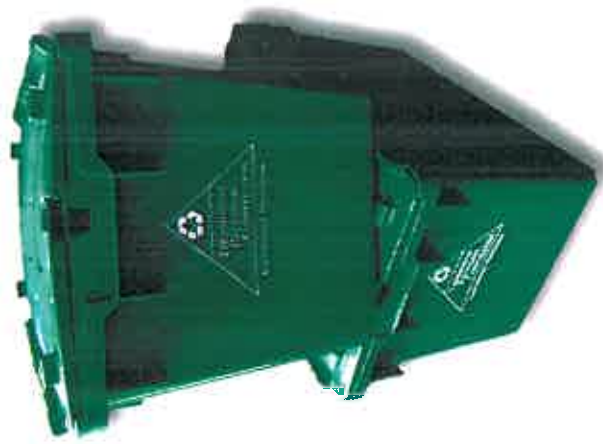
When the collection site's bin is full they send it to TRC's recycling center. The switches are removed and forwarded to a mercury recycler.

### Do I have to recycle mercury thermostats?

Yes. California state law prohibits the disposal of mercury thermostats in the trash. It further requires that all HVAC contractors in the state must recycle every mercury thermostat removed from service. Visit our website to see these state regulations.

### What else should I know?

Most thermostats are replaced by HVAC contractors. We encourage you to ask your contractor what they do with old mercury thermostats and inform them of this free program if they are not participating.



**Mary Pitto**

---

**From:** CalRecycle Electronic Product Management ListServ [EWaste@calrecycle.ca.gov]  
**Sent:** Thursday, August 13, 2015 11:39 AM  
**To:** Mary Pitto  
**Subject:** California E-Waste Updates: Implementing the Electronic Waste Recycling Act

August 13, 2015

Dear Electronic Waste Stakeholder:

This electronic newsletter is an update on the implementation of California's Electronic Waste Recycling Act of 2003 (Act) and other electronic waste (e-waste) management developments in California.

---

**In this issue:**

**PROPOSED CIVIL LIABILITY RULES TO BE HEARD AT CALRECYCLE MONTHLY MEETING**  
**PROPOSED CEW/CRT REGULATIONS TRANSMITTED TO OAL**

---

**#### Proposed Civil Liability Rules to Be Heard at CalRecycle Monthly Meeting ####**

Proposed rules governing the administration and imposition of civil liabilities relative to the Electronic Waste Recycling Act and the covered electronic waste (CEW) program will be discussed as an item at the monthly public meeting of the Department of Resources Recycling and Recovery (CalRecycle) on Tuesday, August 18, 2015. A public notice for the meeting can be found at:  
<http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=1567&aiid=1422>

The item will briefly present the development of the proposed rules and seek approval to proceed with filing the rules as emergency regulations with the Office of Administrative Law (OAL). Documents specific to this item can be found at:  
<http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=1556&aiid=1413>

As authorized by Public Resources Code (PRC) section 42474(d), CalRecycle may administratively impose civil liabilities (penalties) on a person "... that makes a false statement or representation in any document filed, submitted, maintained or used for purposes of compliance..." with the Electronic Waste Recycling Act and associated regulations, including those related to the CEW program. As noted above, the proposed regulations will be adopted under emergency authority (see PRC 42475.2).

**#### Proposed CEW/CRT Regulations Transmitted to OAL ####**

Proposed revised regulations governing aspects of California's CEW program administered by CalRecycle have been approved internally and transmitted to the Office of Administrative Law (OAL) for review. Notice of that filing can be found at OAL's website:  
[http://www.oal.ca.gov/Emergency\\_Regulations\\_Under\\_Review.htm](http://www.oal.ca.gov/Emergency_Regulations_Under_Review.htm)

Documents associated with the filing (Number 2015-0811-01E) can be found here:  
<http://www.oal.ca.gov/res/docs/pdf/emergencies/new%20emergencies/2015-0812-01E.pdf>

The proposed regulations focus on the allowable disposition of treatments residuals, CRTs, and CRT glass derived from CEW that is claimed for recycling payment, as well as associated documentation. Existing program regulations have prohibited the disposal of residual CRT glass derived from CEW claimed for payment. The revisions would allow all otherwise legal dispositions, including regulated disposal if recycling options are not economically feasible to pursue.

Interested parties should note the limited comment period, described on OAL's website, before the rules take effect. Further notices will be announced through this listserv as warranted.

**#### Other Resources ####**

Covered Electronic Waste (CEW) Recycling Program Information:  
<http://www.calrecycle.ca.gov/Electronics/CEW/>

CEW Recycling Payment System Regulations:  
<http://www.calrecycle.ca.gov/Laws/Regulations/Title14/Chap08pt2/default.htm>

DTSC Universal Waste Electronics Handler and Recycler Information:  
<http://www.dtsc.ca.gov/HazardousWaste/EWaste/>

Public Resources Code (PRC), Health and Safety Code (HSC), and other statutes:  
<http://www.leginfo.ca.gov/calaw.html>

USEPA Information on the Management and Regulation of CRTs:  
<http://www.epa.gov/epawaste/hazard/recycling/electron/index.htm>

---

Please note that e-mail correspondence with the Department of Resources Recycling and Recovery (CalRecycle) related to e-waste management in general, and implementation of the Electronic Waste Recycling Act in particular, should be directed to [ewaste@calrecycle.ca.gov](mailto:ewaste@calrecycle.ca.gov)

Also note that an archive of past distributions of this newsletter is available at:  
<http://www.calrecycle.ca.gov/Electronics/NewsEvents.htm>

Thank you for your interest in shaping California's e-waste management future.

---

To subscribe to or unsubscribe from the E-Waste listserv or other listservs, please go to <http://www.calrecycle.ca.gov/Listservs/>. For information on California's Electronic Waste Recycling Act of 2003 (SB 20) implementation efforts, as well as other relevant developments go to <http://www.calrecycle.ca.gov/Electronics/>.



**Mary Pitto**

---

**From:** CalRecycle Electronic Product Management ListServ [EWaste@calrecycle.ca.gov]  
**Sent:** Monday, August 24, 2015 1:08 PM  
**To:** Mary Pitto  
**Subject:** California E-Waste Updates: Implementing the Electronic Waste Recycling Act

August 24, 2015

Dear Electronic Waste Stakeholder:

This electronic newsletter is an update on the implementation of California's Electronic Waste Recycling Act of 2003 (Act) and other electronic waste (e-waste) management developments in California.

---

**In this issue:**

**EMERGENCY CEW/CRT REGULATIONS APPROVED BY OAL**

---

**#### Emergency CEW/CRT Regulations Approved By OAL ####**

Revised regulations governing aspects of California's covered electronic waste (CEW) program administered by CalRecycle were approved by the Office of Administrative Law (OAL) August 21, 2015. Notice of the approval, which includes the final approved language, can be found on CalRecycle's public notice website: <http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=1515&aiid=1376>

The emergency regulations focus on the allowable disposition of treatments residuals, CRT, and CRT glass derived from CEW that is cancelled and claimed for recycling payment, as well as associated documentation. Previously, program regulations had prohibited the disposal of residual CRT and CRT glass derived from CEW claimed for payment. The revisions now allow all otherwise legal dispositions, including regulated disposal if recycling options are not economically feasible to pursue.

Interested parties should note that these rules pertain only to conditions and requirements associated with the CEW recycling payment system administered by CalRecycle pursuant to Title 14 of the California Code of Regulations. They do not alter or abrogate fundamental hazardous material management rules administered by the Department of Toxic Substances Control (DTSC) under Title 22.

It is imperative that all recyclers considering CRT or CRT glass disposition practices with which they are unfamiliar review and understand applicable rules before taking any action. Failure to comply with all applicable rules associated with residual CRT or CRT glass relative to the CEW recycling program in particular, and California hazardous and universal waste management in general, may result in adverse consequences.

**#### Other Resources ####**

Covered Electronic Waste (CEW) Recycling Program Information:  
<http://www.calrecycle.ca.gov/Electronics/CEW/>

CEW Recycling Payment System Regulations (not yet updated):  
<http://www.calrecycle.ca.gov/Laws/Regulations/Title14/Chap08pt2/default.htm>

DTSC Universal Waste Electronics Handler and Recycler Information:  
<http://www.dtsc.ca.gov/HazardousWaste/EWaste/>

Public Resources Code (PRC), Health and Safety Code (HSC), and other statutes:  
<http://www.leginfo.ca.gov/calaw.html>

USEPA Information on the Management and Regulation of CRTs:  
<http://www.epa.gov/epawaste/hazard/recycling/electron/index.htm>

---

Please note that e-mail correspondence with the Department of Resources Recycling and Recovery (CalRecycle) related to e-waste management in general, and implementation of the Electronic Waste Recycling Act in particular, should be directed to [ewaste@calrecycle.ca.gov](mailto:ewaste@calrecycle.ca.gov)

Also note that an archive of past distributions of this newsletter is available at:  
<http://www.calrecycle.ca.gov/Electronics/NewsEvents.htm>

Thank you for your interest in shaping California's e-waste management future.

---

To subscribe to or unsubscribe from the E-Waste listserv or other listservs, please go to <http://www.calrecycle.ca.gov/Listservs/>. For information on California's Electronic Waste Recycling Act of 2003 (SB 20) implementation efforts, as well as other relevant developments go to <http://www.calrecycle.ca.gov/Electronics/>.

**Mary Pitto**

---

**From:** CalRecycle Electronic Product Management ListServ [EWaste@calrecycle.ca.gov]  
**Sent:** Monday, September 28, 2015 12:41 PM  
**To:** Mary Pitto  
**Subject:** California E-Waste Updates: Implementing the Electronic Waste Recycling Act

September 28, 2015

Dear Electronic Waste Stakeholder:

This electronic newsletter is an update on the implementation of California's Electronic Waste Recycling Act of 2003 (Act) and other electronic waste (e-waste) management developments in California.

---

**In this issue:**

**EMERGENCY CIVIL LIABILITY REGULATIONS TRANSMITTED TO OAL**

---

**#### Emergency Civil Liability Regulations Transmitted to OAL ####**

Proposed rules governing the administration and imposition of civil liabilities relative to the Electronic Waste Recycling Act and the covered electronic waste (CEW) program were transmitted to and filed with the Office of Administrative Law (OAL) by the Department of Resources Recycling and Recovery (CalRecycle) on Friday, September 25, 2015. A copy of the filed documents is posted at the OAL website:  
<http://www.oal.ca.gov/res/docs/pdf/emergencies/new%20emergencies/2015-0925-02E.pdf>

As authorized by Public Resources Code (PRC) section 42474(d), CalRecycle may administratively impose civil liabilities (penalties) on a person "... that makes a false statement or representation in any document filed, submitted, maintained or used for purposes of compliance..." with the Electronic Waste Recycling Act and associated regulations, including those related to the CEW program. The proposed regulations clarify the administrative processes of noticing violations, issuing accusations, determining penalties, holding hearings, etc., and will be adopted under emergency authority (see PRC 42475.2).

A summary of this rulemaking's history can be found in the rulemaking area of the CalRecycle website at:  
<http://www.calrecycle.ca.gov/Laws/Rulemaking/EWasteCivil/default.htm>

More information about emergency rulemaking can be found at OAL's website:  
[http://www.oal.ca.gov/Emergency\\_Regulations\\_Under\\_Review.htm](http://www.oal.ca.gov/Emergency_Regulations_Under_Review.htm)

**#### Other Resources ####**

Covered Electronic Waste (CEW) Recycling Program Information:  
<http://www.calrecycle.ca.gov/Electronics/CEW/>

CEW Recycling Payment System Regulations (not yet updated):  
<http://www.calrecycle.ca.gov/Laws/Regulations/Title14/Chap08pt2/default.htm>

DTSC Universal Waste Electronics Handler and Recycler Information:  
<http://www.dtsc.ca.gov/HazardousWaste/EWaste/>

Public Resources Code (PRC), Health and Safety Code (HSC), and other statutes:  
<http://www.leginfo.ca.gov/calaw.html>

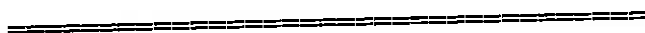
USEPA Information on the Management and Regulation of CRTs:  
<http://www.epa.gov/epawaste/hazard/recycling/electron/index.htm>



Please note that e-mail correspondence with the Department of Resources Recycling and Recovery (CalRecycle) related to e-waste management in general, and implementation of the Electronic Waste Recycling Act in particular, should be directed to [ewaste@calrecycle.ca.gov](mailto:ewaste@calrecycle.ca.gov)

Also note that an archive of past distributions of this newsletter is available at:  
<http://www.calrecycle.ca.gov/Electronics/NewsEvents.htm>

Thank you for your interest in shaping California's e-waste management future.



To subscribe to or unsubscribe from the E-Waste listserv or other listservs, please go to <http://www.calrecycle.ca.gov/Listservs/>. For information on California's Electronic Waste Recycling Act of 2003 (SB 20) implementation efforts, as well as other relevant developments go to <http://www.calrecycle.ca.gov/Electronics/>.



Edmund G. Brown Jr.  
Governor

Matthew Rodriguez  
Secretary for Environmental Protection

Unified Program Newsletter  
September 2015

**IN THIS ISSUE:**

**CalEPA**

**Training: Introduction to Environmental Crimes Enforcement, October 27-29, 2015 (Register by September 25, 2015)**

**Local Reporting Requirements Require Local Ordinance Authority and Notification to CalEPA**

**Reminder: Annual Single Fee Summary Report (Report 2) for Fiscal Year 2014-2015 due September 30, 2015**

**Reminder: Compliance Monitoring and Enforcement (CME) Data must be entered into CERS**

**CERS Tips and Tricks**

**SWRCB**

**Notification of Revised Federal UST Regulations to UST Owners and Operators**

**CAL- FIRE OSFM**

**APSA Tank facility statements uploaded in CERS**

**Farms and the Federal Water Resources Reform and Development Act**

---

**California Environmental Protection Agency**

**Training: Introduction to Environmental Crimes Enforcement, October 27-29, 2015 (Register by September 25, 2015)**

"Introduction to Environmental Crimes Enforcement" is a 3-day course sponsored by the Western States Project. It is a basic environmental investigation course that will leave participants with an understanding and working knowledge of the process and requirements for successful environmental crimes investigations and enforcement within the regulatory system. The class will demonstrate how environmental crimes enforcement can be used as an effective tool, supplementing administrative and civil enforcement. Criminal investigators and regulatory personnel working in support of criminal environmental cases are encouraged to attend.

The training is scheduled for October 27-29, 2015, and will be held in Sacramento, California. Registration must be completed by September 25, 2015. The fee is \$300.00. Additional information is available at:

[www.calepa.ca.gov/Enforcement/Training/documents/2015/WSPIntroOct.pdf](http://www.calepa.ca.gov/Enforcement/Training/documents/2015/WSPIntroOct.pdf)

**Local Reporting Requirements Require Local Ordinance Authority and Notification to CalEPA**

A recent survey of CUPAs and PAs by a large business with facilities in all jurisdictions revealed that some CUPAs and PAs appear to have local reporting requirements that may be difficult to enforce because there is insufficient local code authority and/or CalEPA has not been advised of the local requirement. Under state law, CUPAs and PAs have authority to require additional or more stringent local reporting requirements *provided they are specified in an adopted local code or ordinance*. Further, because many large national and international corporations rely on CalEPA and the CERS

website to alert them of local reporting requirements, CalEPA has requested that all CUPAs and PAs with local reporting requirements provide those requirements and the associated code/ordinance authority to CalEPA. CalEPA has published this information on the CERS website. Failure to advise CalEPA of a local reporting requirement makes it very difficult for businesses with many facilities in different jurisdictions to comply and may delay or otherwise affect the authority of a CUPA or PA to enforce local requirements against a business that reports to CERS.

CalEPA requests CUPAs and PAs with local reporting requirements to review the 'Local Reporting Requirements' table published on the CERS website (<https://cersbusiness.calepa.ca.gov/Reports/RegulatorLocalRequirements>) and provide CalEPA with recommended additions or changes. For further information or to submit local reporting requirements contact Dan Firth at [Daniel.firth@calepa.ca.gov](mailto:Daniel.firth@calepa.ca.gov).

**Reminder: Annual Single Fee Summary Report (Report 2) for Fiscal Year 2014-2015 due September 30, 2015**

Pursuant to California Code of Regulations, Title 27, Division 1, Subdivision 4, §15290(a), CUPAs must prepare the Annual Single Fee Summary Report (Report 2) for the previous fiscal year and submit it to CalEPA *no later than September 30, 2015*. Report 2 includes: the amount of the single fee billed and collected; the amount of any funds due to Participating Agencies and the amount transmitted; the amount of surcharge billed, waived and collected for each program (including the surcharge for the Aboveground Petroleum Storage Act Program); and a count of total regulated businesses, Underground Storage Tank (UST) facilities, USTs, onsite hazardous waste treatment facilities (including Permit by Rule, Conditionally Authorized and Exempt), California Accidental Release Prevention (CalARP) Program stationary sources and waivers granted, businesses subject to the CalARP Program and the total Aboveground Storage Tank regulated facilities.

Information contained within Report 2 is essential to adequately assess the implementation and fee accountability of the Unified Program for each CUPA as well as to convey the statewide success and accomplishments of California's Unified Program to the United States Environmental Protection Agency, California legislature and other interested persons.

The existing template adopted in Title 27, §15680, Appendix B, does not allow for the allocation of the applicable \$26.00 facility surcharge for the Aboveground Petroleum Storage Act (APSA), which became effective fiscal year 2014-2015. CalEPA will initiate the required rulemaking process later this year to remove the template from regulation. Until the template is removed from regulation, CalEPA has developed and is providing CUPAs with a draft template, available at: <http://www.calepa.ca.gov/CUPA/Publications> under the heading "Required Summary Reporting Forms and Instructions for 'CUPA-to-State' Reporting." CUPAs are encouraged, but not required, to use the draft template provided. If a CUPA does not wish to use the draft template, the APSA surcharge amounts assessed, collected and remitted must be documented on Report 2.

Please remit Report 2 for Fiscal Year 2014-2015 to CalEPA by September 30, 2015 via:

**Mail:**  
The Unified Program  
California Environmental Protection Agency  
P.O. Box 2815  
Sacramento, California 95812

**OR** **Email:**  
[cupa@calepa.ca.gov](mailto:cupa@calepa.ca.gov)  
Subject: Report 2- Fiscal Year 14-15

**Reminder: Compliance Monitoring and Enforcement (CME) Data must be entered into CERS**  
Starting fiscal year 2014/2015, CME data must be submitted electronically within 30 days of each completed quarter [CCR Title 27, Division 1, Subdivision 4, §15290(b)]. Submittal deadlines are listed below:

Fiscal Year Quarterly CME Action Occurs (Including updates)	Deadline for Electronic Submittal Of Quarterly CME Data
July 1 – September 30	October 30
October 1 – December 31	January 30
January 1 – March 31	April 30
April 1 – June 30	July 30

As of August 1, 2014, CUPAs are evaluated on quarterly CME electronic reporting requirements for inspection and enforcement activities occurring on or after July 1, 2013.

All CME data must include the complete detail record fields identified in the CERS Regulator Portal (<http://cers.calepa.ca.gov/>) and defined in the Unified Program Data Dictionary ([www.calepa.ca.gov/LawsRegs/Regulations/T27/DataDict.pdf](http://www.calepa.ca.gov/LawsRegs/Regulations/T27/DataDict.pdf)).

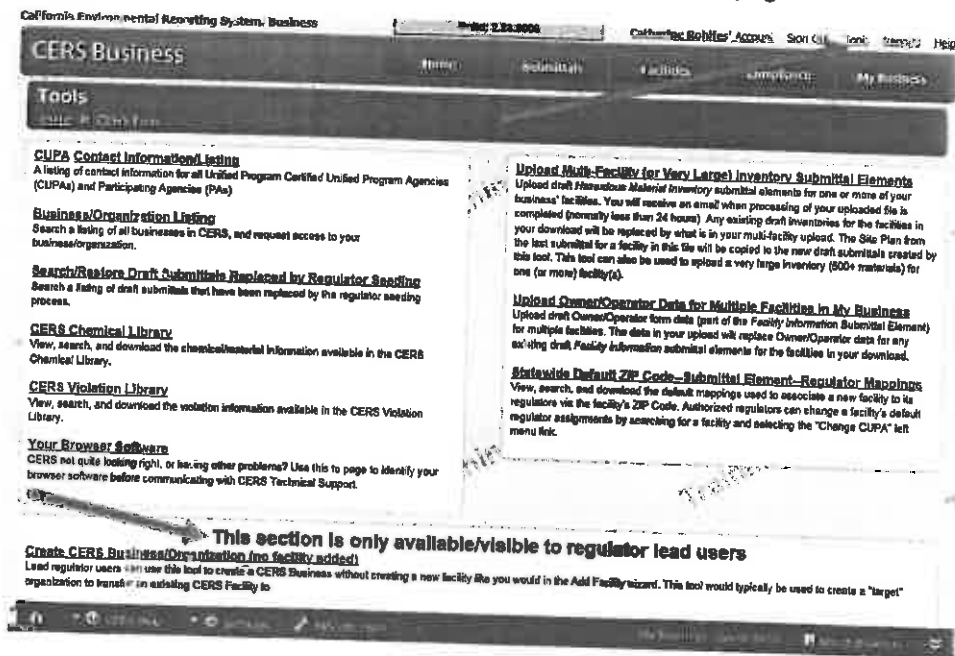
For more information, please refer to Unified Program Guidance Letter 14-02 (<http://www.calepa.ca.gov/CUPA/Bulletins/2014/Jan17.pdf>).

### CERS Tips and Tricks

CERS Tips and Tricks include helpful explanations and resolutions regarding current issues recently received by the CERS Technical Support Team (CTST). If you have questions or concerns, please contact the CTST at [cers@calepa.ca.gov](mailto:cers@calepa.ca.gov).

**How to Activate An Inactive Facility:** To activate an inactive facility, the inactive facility must be transferred to a Business Organization. If the Business Organization does not already exist, a new Business Organization must be created to activate the inactive facility. This process must be completed by a CERS Regulator Lead User and requires the use of the Business and Regulator Portals. Here's how:

1. From the CERS Business Portal "Home" page, the Regulator Lead User selects the "Tools" link, located in the upper right-hand corner of each page.



2. Select the "Create CERS Business/Organization (no facility added)" link.  
*Note: This link will only be visible to Regulator Lead Users.*
3. Enter the Business Organization name, city/state of the business' headquarters. Ensure the "Origin" field displays "CUPA" and the "My Regulator" field displays the correct regulatory agency. These fields should already be set by default.

**CERS Business** Home Submittals Facilities Compliance My Business

**Create CERS Business**  
New Business Organization

[Instructions/Help](#)

Regulator Lead Users can use this form (instead of the new facility wizard) to create a new CERS Organization without creating a new facility at the same time. This would typically be useful when an existing CERS Facility needs to be transferred from a past owner/operator to a new owner/operator that does not yet exist in CERS. When the new CERS Business is created, the regulator lead user will be added as the first lead user for the business. The regulator should assign the new owner/operator profile as CERS users, and then the regulator should be removed or downgraded to a lesser role for the newly added business.

**Create CERS Business/Organization**

**New Business Details**

Organization Name

Headquarters

Origin  
CUPA

My Regulator  
Alameda County Environmental Health

Cancel Save

www.ceris.ca.gov | Contact Us | Help | Feedback

4. Select the "Save" button.
5. Select the "People" link from the menu on the left-hand side of the "Business Summary" page.
6. Select the "Add Person" button from the "People" section.

California Environmental Reporting System: Business

Home Submittals Facilities Compliance My Business

**My Business: CUPA 51012**  
Home > Facilities > People

**Summary** **People** Add New

Summary  
People  
Action Required  
Notifications  
Email History  
Regulators  
Manage Facilities  
Archive

Show All People | Add | Refresh | Export To Excel

First Name	Last Name	Email	Title	Account Status
Cathie	Rohlfes	CGeuss@csls.ca.gov		Username: cgeuss35 Permissions Last sign-in: May 12 6 55 AM
Catherine	Rohlfes	catherine.rohlfes@csls.ca.gov		Username: CRohlfes35 Permissions: Lead Users Last sign-in: Aug 27 10 10 AM

www.ceris.ca.gov | Contact Us | Help | Feedback

7. Enter the e-mail address, phone number and title of the business user that is being added to the facility and select "Continue."
8. Under the "Permission Group" column, select the checkbox next to the applicable options.
9. Select the "Save" button to add the new user to the Business Organization, with the selected permissions



10. From the CERS Regulator Portal "Home" page, the Regulator Lead User must select the inactive facility that needs to be activated.
11. Select the "Manage Facility" link from the menu on the left-hand side of the "Facility Summary" page. This will allow the inactive facility to be transferred into the Business Organization.

California Environmental Reporting System - Regulator

CERS Regulator

Facility: New Auto Service (CERSID: 10143038)

Facility Summary for CERS ID: 10143038

Facility Name: New Auto Service  
Business Name: New Auto Service (Alameda, CA)  
CUPA: Alameda County Environmental Health

<p>Facility Information</p> <p>New Auto Service 10 Broadway Alameda, CA 94502 (510) 555-2222</p>	<p>Remote Facility Yes</p> <p>Small Quantity Facility No</p>	<p>Owner Information</p> <p>John Smith 10 Broadway Alameda, CA 94502 () 555-1111</p>
<p>Primary Emergency Contact</p> <p>Jim Beam c/o () 555-1111 () 555-5555 (24-hour)</p>	<p>Secondary Emergency Contact</p>	
<p>Environmental Contact</p>		<p>Other Identifiers</p>

12. Select "Transfer Facility to Another Business."
13. Search "CERS Organizations" or enter the Business Organization the inactive facility will be moved under.

California Environmental Reporting System - Regulator

CERS Regulator

Facility Transfer: New Auto Service (CERSID: 10143038)

Step 1: Select New CERS Organization for this Facility

Facility to Transfer:  
Facility Name: New Auto Service  
Facility Address: 10 Broadway Alameda CA 94502  
Current Business Name: New Auto Service (Alameda, CA)

Transfer to the Following Business/Organization

Please enter the name of the business (NOT facility) you wish to transfer to:

Organization Name:

Headquarters:  OR

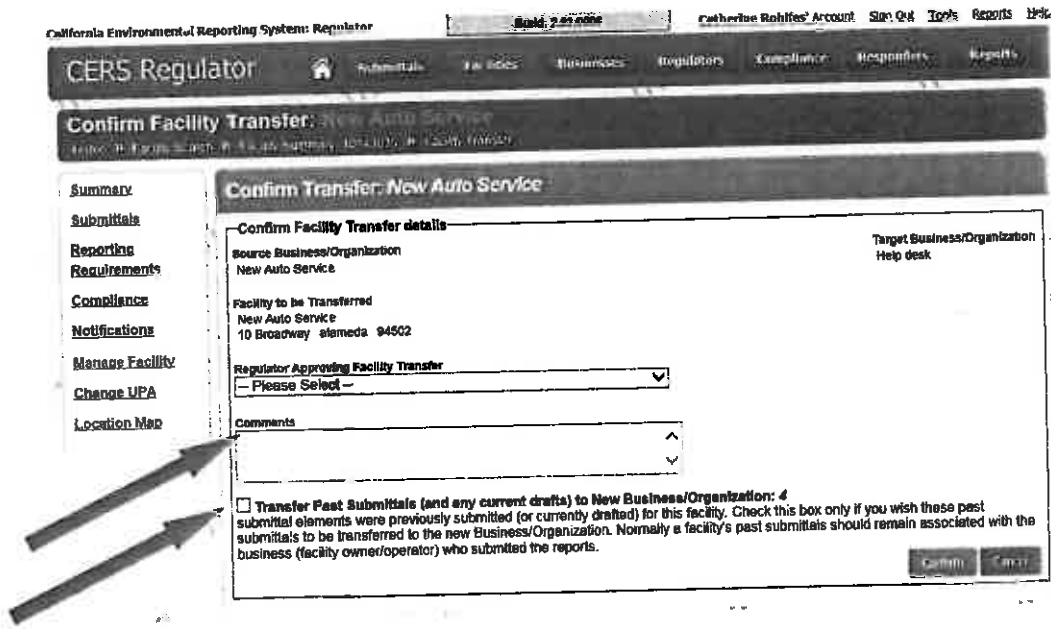
Transfer to my CUPA's Non-Regulated/Not Applicable Facilities Organization  
Use when 1) facility is no longer owned/operated by facility's current CERS Organization and new owner/operator's account at the facility are non-regulated or 2) new Small Quantity Facility is confirmed

Business/Organization Name:

Headquarters:  Facilities:

No item to display

14. Though it is not a requirement, the Regulator Lead User should enter "Comments" to note why the inactive facility is being transferred in order to become active again.
15. Select the check box next to the statement: "Transfer Past Submittals (and any current drafts) to New Business Organization."
16. Select "Confirm."



**State Water Resources Control Board**

**Notification of Revised Federal UST Regulations to UST Owners and Operators**

The United States Environmental Protection Agency has recently made revisions to the federal underground storage tank (UST) regulations published in the Federal Register below.

<http://www.gpo.gov/fdsys/pkg/FR-2015-07-15/pdf/2015-15914.pdf>

On August 20, 2015, the State Water Resources Control Board (State Water Board) issued a letter to UST owners and operators notifying them that they must comply with these new federal UST regulations in addition to California UST statutes and regulations. A copy of the letter is posted at the website below.

[http://www.waterboards.ca.gov/ust/adm\\_notices/fed\\_regs\\_comp\\_deadline.pdf](http://www.waterboards.ca.gov/ust/adm_notices/fed_regs_comp_deadline.pdf)

Enclosed with the letter are tables to assist UST owners and operators in determining which of the new requirements in the federal UST regulations will affect USTs operated in the State of California. The tables contain compliance deadlines and a general description of each of the new federal UST regulations that are more stringent than current California UST statutes and regulations. The State Water Board will provide more detailed guidance on how to meet the new federal UST requirements in the near future. For questions regarding the letter or the tables, contact Mrs. Laura Fisher at [laura.fisher@waterboards.ca.gov](mailto:laura.fisher@waterboards.ca.gov) or (916) 341-5870 or Mr. Cory Hootman at [cory.hootman@waterboards.ca.gov](mailto:cory.hootman@waterboards.ca.gov) or (916) 341-5668.

**CAL FIRE - Office of State Fire Marshal**

**APSA Tank facility statements uploaded in CERS**

Pursuant to Health and Safety Code Chapter 6.67, Section 25270.6, a tank facility owner or operator shall file a tank facility statement. However, if the tank facility owner or operator is in compliance with the business plan program, the accepted business plan satisfies the tank facility statement requirement. There are a few tank facilities that are not required to file the business plan and may therefore be required to file the tank facility statement, for example, federal facilities or residential facilities.

Section 25270.6 (a)(1) requires the location of each aboveground petroleum storage tank exceeding 10,000 gallons in capacity be provided as part of the tank facility statement. Consistent with the intent of Health and Safety Code Chapter 6.95 section 25509(b) of the Hazardous Materials Release Response Plans and Inventory program, UPAs and CalEPA should ensure that site maps or descriptions that provide the precise location of petroleum storage should not be made available to the public.

**Farms and the Federal Water Resources Reform and Development Act**

The United States Environmental Protection Agency (US EPA) has completed and published the study required under the Water Resources Reform and Development Act (WRRDA) to determine the aggregate aboveground oil storage capacity threshold for farms subject to the federal Spill Prevention, Control, and Countermeasure (SPCC) rule. The study determined the threshold for minimum oil storage at a farm subject to the federal SPCC rule to be 2,500 gallons. However, until the federal SPCC rule is amended to incorporate the findings of the study, the threshold provided in WRRDA remains effective.

A factsheet on WRRDA can be found on US EPA's website at <http://www2.epa.gov/oil-spills-prevention-and-preparedness-regulations/farms-fact-sheet-explaining-impact-water>. Questions regarding the WRRDA fact sheet should be referred to the "For More Information" section of the fact sheet.

The US EPA study on farms may be found on US EPA's website at <http://www2.epa.gov/oil-spills-prevention-and-preparedness-regulations/oil-storage-us-farms-risks-and-opportunities>. Questions or comments regarding the study should be referred to US EPA.

*Please note that WRRDA does not change the Aboveground Petroleum Storage Act (APSA).*





Edmund G. Brown Jr.  
Governor

Matthew Rodriguez  
Secretary for Environmental Protection

September 1, 2015

## Unified Program Guidance Letter 15-01

### POLICY FOR HAZARDOUS MATERIALS INVENTORY REPORTING TIMING

To: Unified Program Agencies

#### Statement of Purpose

There have been questions regarding whether the submission of chemical inventory reports throughout the year would meet both federal and state reporting requirements. This policy confirms that electronic reporting meets both state and federal reporting requirements and clarifies the reporting timing requirements to allow local agencies reasonable flexibility in determining effective and efficient reporting timing and to encourage reporting consistency statewide. This guidance supersedes UP- 13 - 01.

#### Background

Hazardous materials reporting by regulated facilities is required under the following: Federal Emergency Planning and Community Right-to-Know Act (EPCRA), 40 CFR Part 370; the California Hazardous Materials Release Response Plans and Inventory (also called the 'Hazardous Materials Business Plan' (HMBP) Program), HSC Chapters 6.11 and 6.95, and CCR Titles 19 and 27; the Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS), CFC Chapter 50; and by various local city and county local ordinances. All relate to the periodic reporting of a chemical inventory.

In 2001, US EPA issued a letter of equivalency stating that regulated facilities in California met the federal reporting requirements of EPCRA by complying with the California HMBP Program. In 2008, Assembly Bill 2286 amended HSC Chapter 6.11, § 25404 and required electronic reporting of all Unified Program Information effective January 1, 2013. In July 2009, US EPA issued a memorandum regarding the submission of chemical inventory information electronically. In June 2015, California Environmental Protection Agency (CalEPA) issued a letter that addressed the continuing equivalency of the California HMBP Program in meeting the EPCRA requirements

## Analysis

### Submission requirements to federal, state and local government agencies

The 2001 US EPA letter of equivalency confirms that the California HMBP program meets the reporting requirements under EPCRA so regulated facilities in California only need to submit HMBP information to the Unified Program Agency (UPA). The July 2009 US EPA memorandum provides that states may accept electronic submission of EPCRA required chemical inventory information, including electronic certifications in lieu of wet signatures. The June 2015 CalEPA letter confirms that businesses in California continue to meet the EPCRA reporting requirement for hazardous materials information.

Effective January 1, 2013, all Unified Program regulated facilities in California are required to report electronically using the California Environmental Reporting System (CERS) or an approved local UPA reporting portal. Regulatory changes are currently underway to remove references to forms that were previously required to be submitted.

### Reporting submission deadlines

Title 40 CFR Part 370 § 370.45 requires that regulated facilities submit required inventory information annually on or before March 1. HSC Chapter 6.95, § 25508(a)(1)(A) requires the business plan (including inventory information) to be submitted annually to the UPA. In addition, HSC Chapter 6.95, § 25508(a)(1)(B) requires the UPA to establish a reporting date and if the UPA does not establish an annual date, it must be submitted annually on or before March 1.

No statute or regulation constrains a reporting requirement on businesses other than "annually" and "on or before March 1". In all cases, the prior 364 days would meet the definition. The purpose of periodic reporting of chemical inventory information is to ensure that local response and planning agencies have information not more than a year old. Nothing in federal or state law further defines or limits the terms "annually", "on or before" or "before".

Collectively, these terms mean an UPA may require reporting anytime during the 364 days prior to March 1 of each year to allow inspections, billing and business reporting to ensure coordinated and effective implementation of their program.

### **Action Plan**

CalEPA recommends that UPAs establish the business regulatory reporting dates throughout the calendar year for the HMBP/HMIS consistent with other local cyclic processes.

### **Questions**

Please direct all questions regarding this policy to John Paine, Program Manager, at (916) 327-5092 or email at [john.paine@calepa.ca.gov](mailto:john.paine@calepa.ca.gov).



Jim Bohon

Assistant Secretary for Local Program Coordination and Emergency Response

# **Agenda Item IX**

## **ARTICLES OF INTEREST**





## Evaluating On-Site Organics Management Options

Like 0 Tweet 2 G+1 0

*A 2015 organics disposal ban in the Metro Vancouver Region of British Columbia, led to creation of a guide for businesses and institutions considering managing their organics on-site.*

**Terry Fulton and Veronica Baker**  
BioCycle August 2015, Vol. 56, No. 7, p. 26

This article references a table available in [BioCycle Magazine in print](#).



Options evaluated include storage (1) for transportation off-site, and aerobic in-vessel systems (2, 3) that create a ready-to-cure material or, in some cases, a ready-to-use soil amendment that can be applied on-site.

North America and used successfully in various industries, but excluded technologies that discharged a slurry to sewer without recovering materials or energy.

### Available Options

Because of the abundance of available technologies, Tetra Tech grouped them into four overarching options: Storage, Pretreatment, Aerobic In-Vessel, and Anaerobic Digestion. Storage is what most users are already familiar with — they have bins, organics are put in the bins, and they get taken away. Specialized storage options,

In 2015, the Metro Vancouver region in the lower mainland of British Columbia, Canada, instituted an organics disposal ban. Metro Vancouver is a regional government representing 21 municipalities, one Electoral Area, and one Treaty First Nation, and is responsible for managing the solid waste produced by 2.4 million residents. Its organics disposal ban targets food scraps being disposed by residents and businesses. From January until July 2015, an extensive education campaign was used to raise awareness and encourage compliance with the ban.

Starting July 1, 2015, the regional government is enforcing the ban at its disposal facilities. Loads containing more than 25 percent visible organics by volume are issued a 50 percent surcharge on the tipping fee. Although the organics disposal ban applies to all sectors, this 25 percent threshold effectively targets the largest generators first, such as restaurants and food retailers. Pending political direction, Metro Vancouver may decrease this threshold over time. Monitoring during the six-month education period showed that 99 percent of the region's customers are in compliance with the 25 percent limit.

For a restaurant or grocery store, a pamphlet introducing a new organics disposal ban can be the start of a logistical challenge. Without the proper tools, businesses are uncertain just how much "doing the right thing" will cost them. Staff training, hauling contracts and new disposal procedures all become part of a long stream of questions that foodservice establishments are asking, and answers can be hard to find. With the onset of the organics disposal ban, Metro Vancouver sought to provide businesses with appropriate tools and resources, including an on-site organics management review. Metro Vancouver retained the services of Tetra Tech Inc. to conduct a desktop review of options available for storage, hauling, and automated processing of organic material on-site for establishments producing between 10 to 1,000 metric tons (11 to 1,100 tons) of food waste per year. The review evaluated and compared on-site organics management options available in

such as a compactor equipped with a biofilter, make this even easier for organics by providing capacity for larger volumes and designs that are better suited to dense organics.

Pretreatment and other processing options increase the commitment to managing more of the organics processing on-site. Pretreatment rapidly reduces the volume of organics by removing the largest component: water. Excess water can be removed through a mechanical process (dewatering), or by heating the organic material to accelerate evaporation and stimulate biological activity (dehydration). These technologies are effective for establishments that are short on space or time, as they can fit in a dishwashing area and the process is generally measured in hours or days, not weeks or months like other processing options.

For those aiming for the next level of on-site organics management, aerobic in-vessel systems are available to help businesses create a ready-to-cure material or, in some cases, ready-to-use soil amendment that can be applied on-site. The downside is that aerobic in-vessel systems require more time and space; staff would need to be trained to ensure the system is operating efficiently and might spend an hour or two each day on keeping the system running smoothly. The “black gold” payoff is sweet, however; for businesses with landscaping, gardens or green roofs this can be an excellent option to close the loop.

For those who want other benefits — such as electricity — small anaerobic digesters can process food scraps while simultaneously creating energy-rich biogas. Not only do these systems help manage organics, they can reduce reliance on grid electricity and save a business money. There’s always a catch of course as these systems have a higher capital cost compared to other options. The on-site options review assessed the medium and large options most readily available in the North American marketplace.

For both aerobic and anaerobic in-vessel systems, Tetra Tech’s study reviewed three sizes (Table 1): small (approximately 10 metric tons/year or four 32 gallon containers per week), medium (approximately 100 metric tons per year or one 6 cubic yard (cy) container per week) and large (approximately 1,000 metric tons/year or one 40 cy compactor per week).

## Decision Making Steps

To give businesses a starting point, Tetra Tech provided the following set of questions for a business to ask, to help them choose which option best suits their needs:

How much organic material do we produce?

What type of organic material do we produce?

How much space do we have?

How much labor is required?

What sort of corporate sustainability benefits can we expect?

How close will we get to producing compost?

How much will it cost?

The amount of organics produced is the first determining factor for filtering options. If an establishment fills a 40 cy compactor of organics each week, obviously a small in-vessel system wouldn’t be sufficient (Table 1). Most options are scalable to some extent, but in general, smaller producers are more likely to be looking at storage or pretreatment and larger producers may need to look at higher capacity systems.

The amount alone doesn’t dictate what options might be applicable; the type of organic material is also important. Some systems have limitations on what type of material can be accepted (Figure 1). Bioplastics and yard and garden debris in particular can cause problems in some systems. Harder items, such as bones, may negatively impact mechanical parts in some systems. When determining acceptable materials, it is best to confer directly with the chosen technology provider, and, if the organic material will be sent to a local processor, what’s accepted at that facility should also be verified.

Space is the most important selection factor for businesses located in a dense urban core. Good intentions aside, if the

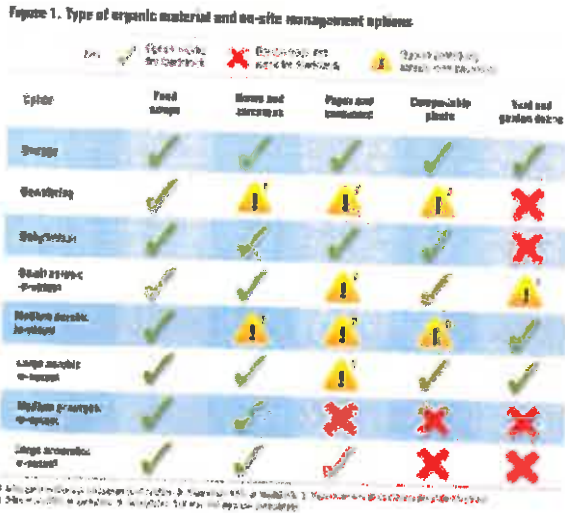


Figure 1. Type of organic material and on-site management options

system can't fit into the space you have, with room to load, unload, and store any input, output or bulking agent material, it's not going to be viable. Pretreatment options are well suited to a small footprint as they take up less space compared to other technologies reviewed. Our report estimated that a dehydration unit uses about 10 square feet (sq. ft.), and a dewatering unit uses 2 sq. ft. Aerobic in-vessel systems can take up as little as 20 square feet (and up to >300 sq. ft.), and new anaerobic systems are starting to make their way into the smaller market, but generally, the in-vessel composting and digestion options require more space. By comparison, a 64-gallon rolling cart uses 5 sq. ft., a yard container uses about 30 sq. ft., and a roll-off container uses about 160 sq. ft.

While some businesses might have space, do they have time to maintain an on-site system? Most staff are accustomed to throwing material into a bin — but what happens when a system needs to be installed and maintained? Minimal effort is required for basic operation of a pretreatment unit, where starting the process may be as easy as pressing a button. However aerobic in-vessel and anaerobic in-vessel systems often require careful monitoring of process parameters, addition of bulking agent or moisture, and routine maintenance to keep things running smoothly. The larger systems may even require a full time operator.

often require careful monitoring of process parameters, addition of bulking agent or moisture, and routine maintenance to keep things running smoothly. The larger systems may even require a full time operator.

Not all benefits are strictly tangible; some businesses are more interested in how they can help the environment, or how they can be perceived to help the environment. With this consideration in mind, more involved on-site processing options may be preferred. While pretreatment may reduce overall greenhouse gases by reducing hauling, aerobic in-vessel systems are producing a usable end product and may eliminate the need for hauling altogether. Anaerobic digestion can also generate energy. In general, the more complex the process, the more sustainable benefits result and can be leveraged for public relations value (Figure 2).

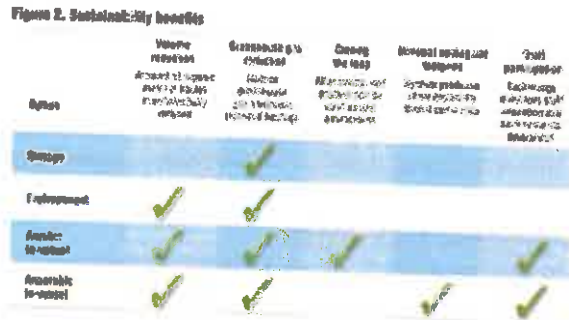


Figure 2. Sustainability benefits

For some businesses, especially those with a use for soil amendment, how close they will get to producing compost is an important factor. For pretreatment, most technologies produce a biomass which may look like compost, but lacks some of the "maturity" provided by an active composting process with a curing phase to follow. Aerobic in-vessel systems generally produce a "ready-to-cure" material, although some now claim to produce ready-to-use soil amendment. Anaerobic in-vessel systems are more complex with a solid digestate that may need further processing as well as a liquid component and biogas.

With these questions, businesses can essentially select what option works for them by a process of elimination. This leaves the final, and for many, the most important question: How much will it cost? While the marketplace is rapidly changing with newly emerging options, when looking strictly at capital and maintenance costs, storage is cheapest and anaerobic digestion systems are the most expensive. However, the cost of hauling adds another important layer for consideration, and the business case for many of these options becomes apparent.



Figure 3. Comparative analysis

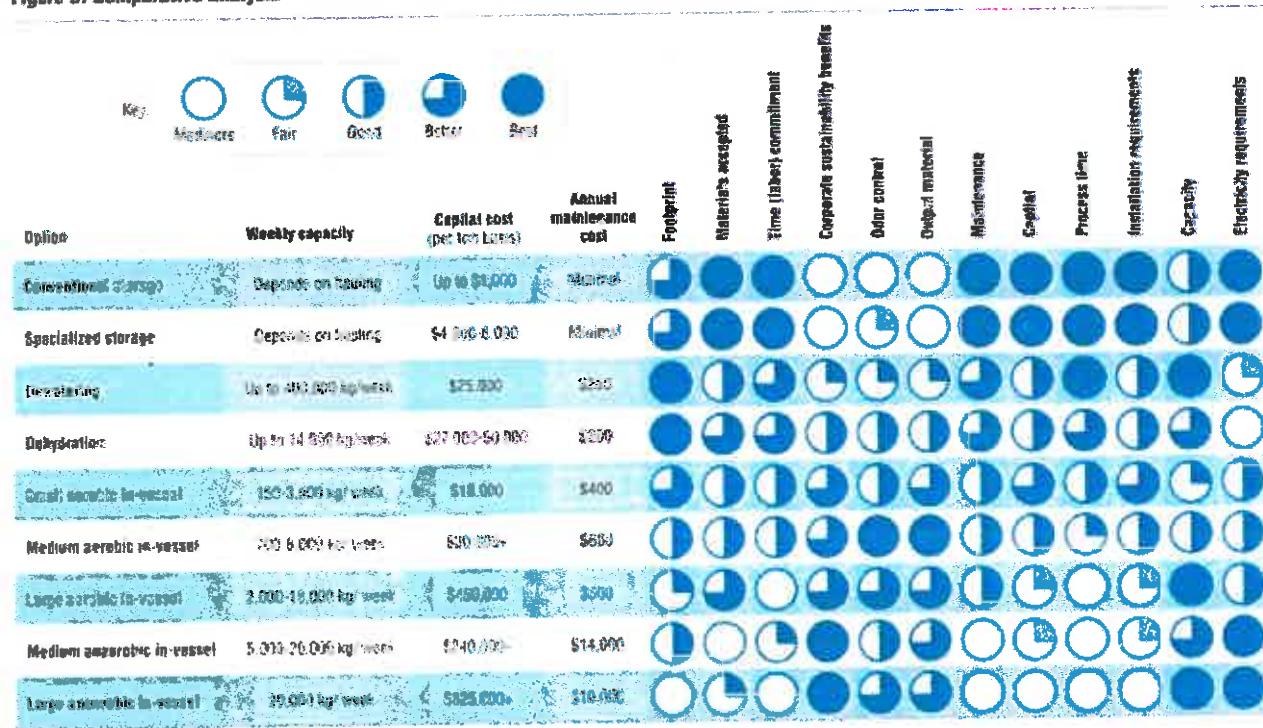


Figure 3. Comparative analysis

For an overall comparison of all of these factors at a glance, Tetra Tech created a summary of key factors, ranked from mediocre to best, in a consumer report-style matrix (Figure 3).

### Practical Example

So how would this work? Imagine a small restaurant in a busy downtown core. To begin to follow the decision making process, they measure their source separated organic material and determine that about two 32 gallon rolling carts per week are generated, which works out to about 700 kilograms per week (1,500 pounds) of organic material. Based solely on weight, the primary options that could be considered are storage, pretreatment, and small or medium aerobic in-vessel systems.

The back alley behind the restaurant is already tightly packed, as is the kitchen, so the restaurant can only fit smaller options, which effectively eliminates in-vessel composting. Another eliminating factor is the time required for in-vessel composting. With a small staff and a busy lunchtime rush, staff don't have much time to operate an in-vessel system and therefore would most likely consider either storage or pretreatment.

The restaurant owner prides herself on being environmentally conscious and would like to choose an option that would help reduce her restaurant's environmental impact. She doesn't simply want organics hauled away, nor does she want them going down the drain. That means pretreatment will likely be the option of choice. A pretreatment system could reduce volume by up to 70 to 90 percent with a corresponding reduction in frequency of hauling. Cost savings could be even greater if the restaurant were to partner with other establishments nearby to reduce capital cost of a pretreatment system.

All types of businesses could follow these same steps and determine different options suitable to their situation. Then, by contacting individual distributors, they could price out different options and more specific features, and soon have their own organics management systems up and running. The full report, "On-Site Organics Management Options Review," was published in Fall 2014 and is available on [Metro Vancouver's food scraps landing page](#) under each sector's Tools and Resources link. Although the report was designed with commercial establishments in mind, this guide may also come in handy for multi-family buildings containing at least 50 units. With this decision-making tool in hand, a business's perception of the organics disposal ban can shift from logistical headache to a new opportunity to reduce waste and benefit from positive publicity.

**Terry Fulton is an Environmental Engineer with Tetra Tech's Solid Waste Practice. Veronica Baker is a Project Engineer with Metro Vancouver (BC's) Solid Waste Services Department.**

## Why California Is Bullish On Organics Recycling

Like 4 Tweet 4 G+1 0

*In a question-and-answer session, Caroll Mortensen, Director of the California Department of Resources Recycling and Recovery (CalRecycle), highlights accomplishments and discusses next steps to advance organics management.*

**BioCycle March/April 2014, Vol. 55, No. 3, p. 29**

*Caroll Mortensen is the opening keynote speaker at BioCycle's 14th Annual Conference on Renewable Energy From Organics Recycling, April 7-10, 2014 in San Diego. BioCycle editors posed a series questions related to organics recycling to Director Mortensen. Her answers provide a preview into her anticipated keynote remarks on April 8.*



Caroll Mortensen, Director, California Department of Resources Recycling and Recovery (CalRecycle)

**BioCycle:** BioCycle frequently makes the statement that if the nation adopted the climate protection policies that California has, our country would be much further along in its transition to renewable sources of fuel and power, as well as organics diversion. Can you tell us how CalRecycle is working to help reduce GHG emissions from an organics management standpoint?

**Mortensen:** Well, we certainly agree with you on that point! And there's no doubt organics management will play an important role in California's efforts to reduce greenhouse gas emissions and adapt to a changing climate. The California Air Resources Board's AB 32 Scoping Plan notes that the primary source of GHG emissions from waste management in California is the direct emission of methane from organics decomposing in landfills. The bottom line? Diverting organics from landfills reduces the amount of methane generated from that source. And when we make good on the inherent value of those organics by composting them, or turning them into clean energy, we multiply the impacts, because we're revitalizing our farmland, reducing water needed for irrigation, and creating new fuels that displace electricity made from fossil fuels and replace diesel fuel in trucks.

We've already made a lot of progress. California's annual waste sector emissions have dropped dramatically — by at least 3 million tons of CO2 equivalent, and emissions continue to decline. And thanks in part to more and more folks understanding the value of organics as a feedstock for clean energy, and what organics emit in landfills, we're on the verge of making tremendous advances. There is a lot of excitement about anaerobic digestion (AD) right now, and the electricity or fuels we make from AD could go a long way toward making the waste sector carbon neutral.

Highly important to our work are the partnerships we have with all the public agencies and private stakeholders, from the Air Resources Board (ARB) and the California Energy Commission to state universities, sanitation districts and private businesses. This is how we accelerate progress — and it's what allows us to be more aspirational. Our collective focus recently has been the Waste Management Sector element in the AB 32 Scoping Plan Update.

In particular, because our success demands the existence of stable markets for products generated by composting and AD, we'll continue to work with the private sector to develop those end uses. For instance, thanks to our collaboration with ARB and our work with the Legislature and Governor's Office, we have an opportunity in 2014 to implement the first-ever California grant and loan program dedicated to expanding and renovating California's organics infrastructure.

**BioCycle:** This is exciting news! Can you elaborate on the new grant and loan program?

**Mortensen:** The Governor's proposed budget includes \$30 million in GHG reduction funds to distribute through a competitive program with a focus on new and expanded California composting and AD facilities. We held a workshop in early February to show stakeholders our draft proposals for how the grants and loans will work. There was a lot of interest. We laid out the goals and objectives of the program and the proposed scoring criteria. All this information is available on our website ([www.calrecycle.ca.gov/Climate/GrantsLoans/](http://www.calrecycle.ca.gov/Climate/GrantsLoans/)). I encourage your readers and all our colleagues to check it out. We're hoping to launch the process this spring with applications due over the summer, and awards made in the fall.

We're looking for proposals that will reduce greenhouse gases, while enabling communities to meet their economic and environmental goals through better organics management. This is a sound basis upon which to grow our organics processing infrastructure, and we'll continue to pursue additional opportunities using GHG Reduction Fund dollars.

**BioCycle:** Considering that California has a statewide goal of 75 percent recycling, composting or source reduction of solid waste by 2020, how do you see California's current organics processing infrastructure growing to meet this challenge?

**Mortensen:** Right now, about 10 million tons of organics are recycled for compost, mulch, biofuels and bioenergy here in California. And of course, this is a success story itself as it represents tremendous — and in the eyes of some, improbable — progress over the past 20 years.

We have about 140 composting facilities processing somewhere around 5.5 million tons of feedstocks annually. We have over 100 chip and grind facilities processing additional organic material that goes to a variety of uses, including composting, mulch, and to biomass conversion facilities that produce renewable energy.

But the fact is, this only represents the first phase of organics recycling infrastructure we need. Compostable organics still comprise about one-third of the material going to California landfills. Lumber and wood make up an additional 14 percent. In order to achieve our statewide 75 percent goal we'll need to double our organics infrastructure. This will be absolutely essential to accommodate higher recycling and support a healthy expansion of local markets and solutions.

**BioCycle:** What do you perceive as the most significant challenges to creating organics recycling infrastructure?

**Mortensen:** The most significant challenge to creating more infrastructure is financial: Landfilling remains cheap in California. We're working on incentivizing organics recycling for local government and businesses. In addition to the proposed new grants and loans for processing infrastructure, we're also researching expanded markets for AD facilities to sell their biogas. We already see biogas generated at these facilities being used to fuel heavy truck fleets and for electricity production, so we've begun to work with ARB and other agencies to develop a process so biomethane generated from AD can be injected into the common gas pipeline, which would open up a new market for AD-sourced biogas. [Editor's Note: The California Public Utilities Commission voted in February to adopt new rules for injection of biogas into the state's natural gas pipelines; biogas had been banned from pipeline injection.]

**BioCycle:** With regard to California's 75 percent statewide recycling goal, you worked with a wide range of regulated and interested parties to develop strategies to get there. Has that process met your expectations?

**Mortensen:** CalRecycle has a history of developing policies and exploring solutions in a transparent, collaborative manner — both because that's how it should be done, and it's what we've found to be most effective in finding solutions that are reasonable without sacrificing our ambitions. If you don't have that balance, if you don't avoid those extremes, then you're either suffocating progress or alienating your partners. And we held to this course in our work on the 75 percent goal. We've had important discussions with stakeholders focused on the issue of organics in landfills, the conversion of waste to energy and fuels, and

funding and siting for new processing infrastructure in the state. We've held several workshops to discuss revised technical papers and to seek public input on the Waste Management Sector element in the AB 32 Scoping Plan Update, which includes activities to reach 75 percent.

**BioCycle:** What are some of the key issues the collaboration has highlighted?

**Mortensen:** Key issues highlighted by the collaboration include the need to address environmental justice issues, fairness over siting and regulatory constraints, air quality and water quality cross-regulatory issues, and education of both the public and our colleagues at all levels of government all over the state.

For instance, one of the challenges for many years has been air emissions from composting. We've worked extensively with the air districts on this issue. For example, several years ago, CalRecycle worked with the San Joaquin air district to demonstrate a solar-powered composting system that turned out to be very effective at reducing fugitive emissions from the process. This project also reduced diesel fuel use, the amount of land needed for composting, and notably given our drought situation here, water use.

It's important for us to continue to make this kind of headway. We've also been collaborating with the University of California to better understand composting emissions. We know it's important to put science behind what we do, and I think our stakeholders appreciate that.

Overall, our collaborations continue to be positive and productive, and we continue to move forward to support recycling enterprises — private and public — as they develop and expand the physical infrastructure we need in order to reach 75 percent.

**BioCycle:** California is a reliable bellwether for recycling and sustainability, and you have discussed two key drivers to organics recycling in California, Climate Change (AB32) and waste diversion (AB341). You earlier mentioned the severe drought the state is facing. What role will organics management have in helping the state adapt if dry conditions continue into the future?

**Mortensen:** The drought is a serious issue for California, and insofar as the state's response is concerned it's all hands on deck. Like other agencies, we need to look at our program areas, the activities of those we permit and regulate, and any opportunities that may be out there to alleviate the problem. One of the things we're examining is how we can help sustain our nation-leading agriculture sector, which is an important water customer. In years past we've been blessed with a climate that is unique in the United States, good soil, and the current severe drought notwithstanding, typically sufficient water from the mountains.

But these things are changing. The snowpack in our Sierra Nevada, where most of our water comes from, has been shrinking. Last year was the driest on record; 2014 is starting out dry.

Organics recycling can play a huge role, with compost and mulch helping California agriculture adapt to a warmer, drier climate. Compost helps soil absorb more water and hold onto it longer, and mulch provides additional water-retention benefits.

We're looking at a future where expanded use of these products will not only be beneficial, but essential.

**BioCycle:** California has been very successful with a diversion mandate approach versus outright disposal bans. Going forward, and to meet the 2020 goal of 75 percent recycling, would a ban on disposal of compostable organics be a useful tool to facilitate infrastructure development?

**Mortensen:** When applied thoughtfully and judiciously, bans can be effective — and support a broad range of environmental and public health and safety goals. Over the years California has banned several materials from municipal landfills to achieve these ends.

An outright ban of organics from landfills may guarantee they're not disposed there, but that doesn't necessarily mean a ban is also the best means to develop the types and amount of infrastructure we need to manage that material to its highest and best use. Because of certain concerns raised about bans, notably the risk of illegal disposal, they are often among the last policy approaches we consider. So we look very carefully at any and all impacts — first, second and third order effects — before any movement in that direction.

We've worked for years with industry and local government to develop partnerships necessary to build the composting and AD infrastructure we envision for our state. And that partnership has put weight and sensibility behind organics as part of California's mandatory commercial recycling program. We're encouraged by a bill recently introduced in our state legislature that would accomplish this goal (AB 1826 (Chesbro)). We

want to be sure any policy considers the needs of industry and local government — but it certainly needs to be aggressive enough to support our critical need for new organics infrastructure in California.

**You might also like:**

Food Waste  
Collection  
Companies Grow  
With The Flow

BioCycle World

State Of  
Composting In The  
U.S.

Forging Paths For  
New York City's  
Community  
Composters

Composting  
Roundup

Linkwithin

Like  4 Tweet 4 G+1 0

Tags: [Organics recycling](#)

This entry was posted on Friday, March 28th, 2014 at 2:59 pm and is filed under [Uncategorized](#). You can follow any responses to this entry through the [RSS 2.0](#) feed. Both comments and pings are currently closed.

Comments are closed.



# RESOURCE RECYCLING

SUBSCRIBE TODAY! >>

Home News Periodicals Conferences Products and Services Industry Links Advertise Contact

Google Custom Search

## Nation urged to cut food waste in half by 2030

By Editorial Staff, Resource Recycling

September 22, 2015

Two government agencies have announced a goal that could serve as a rallying call to reduce tonnages of disposed food.

The U.S. EPA and the U.S. Department of Agriculture last week set a countrywide goal of reducing food waste by 50 percent within the next 15 years. It is the first national goal of its kind, according to the announcement.

Of the 37 million tons of food waste generated by the U.S. in 2013, 35.2 millions, or 95 percent, was sent to landfill, EPA statistics show.

The EPA says its recent initiative is an attempt to limit landfilling and improve food security in the U.S.

"Let's feed people, not landfills," said Gina McCarthy, EPA administrator. "By reducing wasted food in landfills, we cut harmful methane emissions that fuel climate change, conserve our natural resources, and protect our planet for future generations."

The EPA and USDA are hoping the public and private sector can help make use of excess food by donating it to charities and other organizations that work to "improve overall food security."

Since 1960, when just over 12 million tons of food waste were generated, food scrap generation has skyrocketed in the U.S. After hitting 23.9 million tons in 1990 and 30.7 million tons in 2000, food waste generation has continued to climb, with 2013's total representing an all-time high.

At the same time, USDA data indicate food insecurity has also risen. In 2000, just over 10 percent of U.S. households were considered food insecure; in 2014 the number rose to 14 percent.

The US Composting Council and six other groups voiced "strong support" for reduction target. In a letter sent to both the USDA and EPA, the groups stated, "This goal, while ambitious, is doable."

A copy of the letter can be read on the website of the National Foundation to End Senior Hunger here.

In a statement sent to Resource Recycling, Rod Tyler, president of the US Composting Council, said, "We look forward to working with USDA, EPA and many other partners to build a robust national infrastructure to reduce, recover and recycle wasted food in the U.S. By digesting and composting that portion that cannot be used to feed people or animals we can provide bioenergy and soil amendments that help heal the earth while avoiding significant greenhouse gas emissions."

Get more Green out of your e-cycling program. **MRP Company**  
Metal Recycling & Processing  
800-322-5119 | mrcorp.com

We Buy Circuit Boards and Parts R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 R45 R46 R47 R48 R49 R50 R51 R52 R53 R54 R55 R56 R57 R58 R59 R60 R61 R62 R63 R64 R65 R66 R67 R68 R69 R70 R71 R72 R73 R74 R75 R76 R77 R78 R79 R80 R81 R82 R83 R84 R85 R86 R87 R88 R89 R90 R91 R92 R93 R94 R95 R96 R97 R98 R99 R100

**PRODUCT STEWARDSHIP FORUM 2015**

December 8-9 | Boston, MA

To return to the Resource Recycling newsletter, click here.

Sign up for the Resource Recycling newsletter

Add new comment | Tags: September 2015, Resource Recycling, Compost, Food scraps, Government, Source reduction, Waste reduction



HOME SUBSCRIPTIONS PRODUCTS & SERVICES INDUSTRY LINKS ADVERTISE CONTACT SITE MAP

Copyright 2015 by RESOURCE RECYCLING INC. All rights reserved  
Powered by wind energy and sustainably hosted by CANVAS HOST  
Designed by THE MOBIUS NETWORK, LLC.



# How Updating Your Community's Waste Management Plan Can Help Cut Costs and Create Jobs



GOLDER ASSOCIATES INC.

In small towns and rural municipalities, keeping current jobs and growing new employment while keeping a handle on expenses are top priority for many elected officials.

BY ANDY NICKODEM AND MATT BERGEON

**T**hese two needs—creating employment and reducing expenses—can be met in part through developing an effective solid waste management plan that takes current developments in waste management into account. This can create surprising opportunities for a solid waste team to contribute to the success of their community.

## Helping a Foundry Keep Its Costs in Line

To see how this works, consider a foundry

in rural Wisconsin that was, with 250+ on the payroll, one of the town's biggest employers. In the course of preparing an updated waste management plan for the community, when Golder Associates analyzed the wastestream coming from the foundry, we found that the biggest part of the company's wastestream was foundry sand—aggregate that has been used in the casting process. The company was repurposing as much of the foundry sand as it could with the remainder being trucked to the local landfill for disposal.

Because the space available in the landfill was rapidly filling up, the foundry company was faced with the prospect of having to truck the foundry sand to another location some 60 miles away. Given the volume and weight of the sand, this would have put a severe strain on the company's finances, putting its future—and the jobs it provided—in jeopardy.

In preparing the updated county waste management plan, we worked with the foundry and the county to begin the process of expanding the landfill for continued



disposal of the foundry waste. The foundry will continue to have access to low-cost disposal. This helps preserve existing jobs as well as create new employment opportunities locally.

This example shows that developing a current waste management plan can sometimes uncover previously unrecognized costs and risks, so they can be resolved. It can also open up new possibilities for saving money and jobs, and even create new opportunities for economic activity.

### Waste Management Plans Help Develop New Possibilities

In our work with local governments, ranging from large to small, we find that many waste management plans were developed 20 years ago, and for a much different reality.

At that time, small towns and rural areas found "landfill it all" to be the best solution. Their low density and limited resources just didn't support recycling, composting, and other diversion initiatives that were then taking root in the nation's larger cities.

In addition, we find that some smaller municipal governments still believe landfill disposal to be the best solution to their solid waste needs. They may believe that diversion solutions that work in bigger cities and towns are beyond them—solutions such as curbside recycling and organics collection, combined with sophisticated separation technologies and the sale of collected materials.

But the fact is that there have been many changes—in social attitudes towards solid waste, in waste management technology that is now within financial and technical reach of even small municipalities, and within the economic structure that makes diversion more available.

Here are some trends we're seeing:

**Residents demand a greener approach to waste management:** An electronically interconnected world means that increasingly, residents of small and rural municipalities are concerned about the environment. As a result, they want to be able to live a more "green" lifestyle, and this includes solid waste management.

Often, this is because of educational programs in elementary and secondary school that preach the value of "reduce, reuse, recycle"—as well as reports in the popular media that build awareness of these ideas.

Municipal leaders hear the call and are looking for ways to introduce diversion measures or make more complete those

measures now in place. This might include curbside pickup programs for villages and towns, rather than requiring residents to drive their waste to a disposal site.

**More affordable, scalable, accessible technology:** Early generations of equipment for sortation and processing of solid waste, as well as composting, were designed with big urban areas in mind—large capacity, with a high demand for skilled operators.

Recently, manufacturers have been developing equipment that is suitable to smaller operations—more reliable with less

need for maintenance or special training, and able to be scaled to the size of the need. Experience and competition have made this equipment less costly to buy and to operate.

This opens up significant opportunity for smaller municipalities to build their own diversion capability.

Another development has been the increase in the range of items that can be recycled. For example, consider asphalt shingles—now a mature market with robust solutions for new uses for

FORESTER UNIVERSITY PRESENTS

# Process Improvement for Solid Waste Facilities

Master Class Series

On-Demand  
Earn 4 PDH / 0.4 CEU Credits!

Register today and save 20%

Miss a session? Not a problem!  
All sessions are recorded for on-demand viewing.

It works for giants like NASCAR and General Electric...why not your waste facility?

Join Neal Bolton for a four-session on-demand crash course exploring the current process improvement concepts and techniques, and how you can apply these to your waste facility to improve your operations, increase your efficiency, AND reduce your costs.

Sessions include:

- On-Demand Introduction to Process Improvement
- On-Demand Applying Process Improvement to Waste Disposal
- On-Demand Applying Process Improvement to Waste Collections
- On-Demand Applying Process Improvement to Waste Diversion

BRINGING YOU CUTTING-EDGE TECHNOLOGY AND TOOLS—ANYTIME, ANYWHERE

**FORESTERUNIVERSITY.NET**

Follow us @ ForesterU | Like us @ ForesterUniversity | Subscribe @ ForesterUniversity | Access @ ForesterUniversity



## ADMINISTRATION

a formerly landfill-only product. Many municipalities work with contractors to ensure clean loads of shingles—no wood scraps or lunch remnants—receive favorable economic treatment.

**More public-private partnerships:** Also, in response to the need to divert waste from landfills, and to use resources more wisely, there has been a significant increase in the numbers of for-profit companies who are willing and able to partner with local governments. These companies bring the operational know-how, as well as the capital

resources, to make diversion a success. As well, they're familiar with the idea of combining wastestreams from two or more small communities. They have connections with potential customers of the recycled materials, so it's possible for a municipality to get top dollar for its solid waste.

**Increased cooperation among small municipalities:** While a single small municipality might not be able to afford an anaerobic digester or a comprehensive materials recycling facility, by combining their funding and their wastestreams, they

can. There is now a strong track record of success for shared facilities, leading more municipalities to team up.

Another factor in the growth of cooperation has been the waste management companies, who may be more interested in a public-private partnership if there is a larger wastestream to work with.

**More opportunities to turn waste into jobs:** Operating a materials recovery facility (MRF) can create more jobs than would be made from just landfilling the waste. Then there's the revenue to be earned from the sale of high-value recyclables that can be used for job creation and public works projects.

While some of the salvaged materials must simply be sold and trucked onwards to their next life as new products, it's increasingly possible to have that re-manufacturing done locally. This can include chipping asphalt shingles and processing them into road base, and making new products out of scrap lumber.

**Making the best of the solid waste revolution:** These trends help change solid waste from a problem to be minimized, into an opportunity that must be developed.

Some pointers:

- Look to the trends in larger urban areas—and expect that those developments will soon be available in smaller municipalities.
- Don't cut your municipality off from future opportunities—by leaving room for expansion of a MRF, for example, it becomes possible to accommodate more diversion measures in future.
- Stay informed—through publications such as this one, and through attending conferences such as the Solid Waste Association of North America's (SWANA) Zero Waste Conference in New Orleans in March 2015—in new developments that may be at the R&D stages right now, but can be expected to show up in ready-to-use form soon. **MSW**

*Andy Nickodem, P.E., is Associate and Senior Consultant, and Matt Bergeon is a Staff Environmental Scientist and Planner, both with Golder Associates, based in Green Bay WI.*

New On-Demand Webcasts!

# Need Training? Get It.



Advanced Zero Waste Analysis & Planning



Optimizing Waste Diversion



FREE! Anaerobic Digestion of Organic Waste Streams



Organics Collection, Separation, and Processing



Applying Process Improvement to Waste Diversion



Organics Management Master Class



Creating Your Sustainability Plan



Proving Success with Metrics & Social Marketing



Introduction to Zero Waste



Sustainability Programs & Green Marketing - What It Is (and Isn't) & What Works (and Doesn't)



Getting to Zero Waste - Can It Really Be Achieved?

Register today at [ForesterUniversity.net!](http://ForesterUniversity.net)



BRINGING YOU CUTTING-EDGE TECHNOLOGY AND TOOLS - ANYTIME, ANYWHERE

## FORESTERUNIVERSITY.NET

[Follow us on Twitter](#) | [Like us on Facebook](#) | [Subscribe on YouTube](#) | [Join us on LinkedIn](#)

For related articles:

[www.mswmanagement.com](http://www.mswmanagement.com)



# Avoiding Disputes Down the Road: The Top 10 Problems With Landfill Gas Contracts

Contracts serve not only to define the rights and obligations of the parties in performing the project, but they also serve to clarify the responsibilities of the parties if something goes wrong. BY PHILIP L. COMELLA

## Abstract

Everyone in the landfill gas (LFG) industry knows that contracts are a necessary evil. The parties understandably focus on the engineering aspects of the design, how many wells and engines to install, how to increase or extend gas production, how the gas production translates into revenue, the status of carbon credits or RECs, or any number of benefits that will result from a successful project. Contracts, however, serve not only to define the rights and obligations of the parties in performing the project, but they also serve to clarify the responsibilities of the parties if something goes wrong. This paper highlights 10 of the key problems that arise in performing under an LFG contract and offers some sample contract provisions to help avoid them.

## The Setting

You have gone through the bidding process, selected an LFG developer, and now wait for your problems to be solved. No need to worry about gas collection, odor complaints, or compliance with the Clean Air Act. The gas that was previously flared, or even uncollected, will now be turned into energy for which you will receive a royalty. All you have to do is do what you do best—accept and dispose of garbage, and leave the LFG problems to someone else.

Or, you could be on the other end of the bargain, and finally obtained a major LFG project with a local municipality. You have put together an experienced team of engineers with access to the latest technologies in LFG utilization. They assure you it will all work and meet the needs of the client. Foremost in your mind are the profits you will make when all that LFG is collected, converted, and sold as power.

## Ten Contract Problems to Avoid

The purpose of the contract is not only to describe the rights and obligations of the parties in carrying out the project, but also to anticipate areas of possible dispute so that if the unexpected occurs, the contract will provide a roadmap to the solution. Absent clear contract language, the parties may become at loggerheads over who is responsible for fixing the problem, leading to unnecessary transaction costs and disputes over performance. The following is a list of 10 contract problems to avoid.

### 1. When Will the System Be Installed and Operational?

The implementation of the LFG project is dependent upon the occurrence of a number of events outside the control of the parties. Permits must be applied for and received for the collection system, the conversion unit, and flares; easements must be obtained to run a pipeline or electrical wires offsite; a power purchase agreement must be negotiated. In addition, parts and equipment must be ordered, experienced contractors employed, and, of course, financing put into place.

Despite these many contingencies, most parties to an LFG contract want at least some confidence that the LFG system will actually be built. But if the parties do not memorialize their expectations in the contract, there may later turn out to be a dispute over when the system was supposed to be up-and-running. In terms of contract provisions, there are generally two ends of the spectrum with regard to setting milestones for construction. On one end of the spectrum are clauses that impose “soft” or subjective standards such as:

Contractor will use its best efforts to obtain all necessary permits, sales contacts,

and approvals to construct and operate the gas collection system. Any lapse of [e.g., 1-6] months or more in these activities will allow Owner to issue a Notice of Default.

On the other end of the spectrum are clauses setting out a construction schedule with specific milestones along the way. The parties here can be as detailed as they would like. Here’s an example:

Contractor shall meet the following construction schedule:

1. Obtain all permits, licenses, and approvals to commence construction—12 months after Effective Date.
2. Complete installation of collection System and flare—18 months after Effective Date.
3. Complete connection of collection system to power unit—22 months after Effective Date.
4. Begin selling gas to end-user—24 months after Effective Date.

Each of these activities can be broken down into smaller tasks and the project charted using a software project. Some parties choose, however, just to set an end date marked by the generation of power or payment of royalties, and then leave it up to the developer to set its own schedule.

The point here is to come to a meeting of the minds with the developer (or Owner) on expectations over the schedule and completion date. What often helps is to have an open, fully informed discussion of the pre-conditions to system startup, and then wrap the schedule around them. If not, disputes may arise over progress and expectations.

### 2. Schedule Delays

It is the rare construction project where everything goes according to plan. Together with the construction schedule, the parties also have to account for the consequences of delays in construction activities. If a



milestone—such as the installation of the blower—is not met, then what happens? Is the contract automatically terminated? Does the Owner have the right to issue a default notice and allow for a cure? Must the contractor pay liquidated damages for every day or week of delay? Is the schedule adjusted? If the contract is silent on this topic, then there will likely be a corresponding increase in transactional costs to deal with any delay.

One approach is to make sure there is enough flexibility in the schedule so that the parties are not unnecessarily or prematurely forced into antagonistic positions. For example, the contract may allow the contractor one extension for good cause, or request an extension of a certain amount of time (e.g., 90 days) before the milestone passes. Or, instead of damages for late performance, the Owner may provide a bonus for early performance. The point here is to anticipate slippage in the schedule and insert contract language to account for it. Alternatively, there is nothing wrong with an Owner wanting firm construction dates and deadlines and retaining the right to issue a notice of default. At the end, however, the Owner must still decide whether it wants the

The pre-award process allows you to conduct background checks, perform interviews, research financial information, and do all of the things central to a successful project.

ultimate hammer—termination—as a cure for missing the deadline, or something less.

**3. Assignment Provisions**

When you contract with a developer or Owner, you have a good idea who you are dealing with. The pre-award process allows you to conduct background checks, perform interviews, research financial information, and do all of the things central to a successful project. But what stops either party from assigning the contract rights to a third party who is a complete stranger?

The general rule is that a contract right is freely assignable absent a specific prohibi-

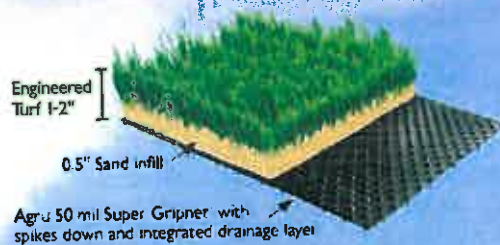
tion in the contract. But a further general rule is relevant to LFG contracts; this rule states that “where the personal qualities of either party are material to a contract, the contract is not assignable without the assent of both parties.”

Suppose the other party to the contract assigns its rights to an LFG contract that does not have an anti-assignment clause. Where are you? Well, after you have a few unpleasant phone calls and write a letter or two objecting to the assignment, probably nowhere. Absent a dispute resolution clause, you may have to seek legal relief to nullify the assignment based on the personal

# Agru America Closure Solutions

Subtitle D Compliant Closure Systems for Impoundments and Landfills

Visit us at  
**WASTECON®**  
Booth #1141



**ClosureTurf®**  
Brought to you by Agru America

**ClosureTurf® System**  
A proven "hybrid" composite system that outperforms traditional closure methodologies.



www.AgruAmerica.com • 800-373-2478  
Chris Eichelberger: ceichelberger@agruamerica.com

ClosureTurf® is a product of WaterShield Geopolymerics LLC, U.S. Patent Nos. 7,582,105 & 9,583,377; Canada Patent No. 2,663,175. Other Patents Pending. This information is provided for reference purposes only and is not intended as a warranty of performance. Agru America, Inc. assumes no liability in connection with the use of the information.



nature of the services.

To protect yourself, there are a number of options, including inserting language that the assignment may be made only with the express written approval of owner and that any assignment made in violation of this provision is void. You may then want to link any assignment attempted without approval to the termination clause.

#### 4. Responsibility for Environmental Compliance

Perhaps no issue has caused as many disputes between a landfill owner and developer as the question of who is responsible for environmental compliance. Here is the problem: Suppose a landfill owner hires a developer to manage the gas collection system. The contract makes the developer responsible for environmental compliance. The developer fails to carry out the appropriate tests and the State environmental agency issues a notice of violation (NOV). To whom will the environmental agency issue the NOV? Chances are to both the landfill owner and the developer, or even just to the landfill owner. The government does not care what the contract says, because it is not a party to it. The regulations make the landfill owner responsible for compliance, and this duty is non-delegable: As the owner and operator of the landfill, the owner is legally responsible for compliance and cannot transfer this duty away via a contract provision. So then what do you do? Ask the developer to take over responsibility for the NOV? Whose record will it go on? Who pays the fine?

These are all difficult questions, which have influenced some landfill owners to stop hiring third parties to manage LFG systems. But there are steps an owner can take to limit its exposure. These include: (1) ensuring the indemnity clause (see below) covers environmental violations and penalties, (2) closely monitoring the performance of the third-party contractor and holding regular briefings on compliance issues, (3) checking the compliance record of the developer, and (4) making sure the receipt of NOVs or similar violation notices trigger the notice of-default provisions.

#### 5. Indemnification

Suppose a wellhead casing breaks off, causing an uncontrolled release of LFG into the air. The gas emission leads to both a governmental enforcement action and a toxic tort lawsuit from neighboring residents for

odor emissions. Between the landfill owner and LFG developer, who is responsible for defending the actions?

Indemnification clauses are among the most time-consuming to negotiate. This is because contracting parties do not want to take any more risk than absolutely required, and have an incentive to direct as much legal responsibility to the other party. It is also commonly believed that with an indemnification clause in hand, the party benefiting from the indemnity (the "indemnitee") will have no more worries.

After all, he has an indemnity.

All too often, however, the indemnification clause in use either does not cover the specific claim in question, or converts an argument over who is responsible for a third-party claim to one over the enforceability of an indemnification clause. In this way, indemnification clause are similar to having an insurance policy that instills confidence in the policy holder until you find that the very harm suffered—such as a flooded basement—falls within an exception to the policy.

**Tt TETRA TECH**  
complex world | clean solutions™

### Sustainable Solutions for Waste Management

As the top ranked U.S. solid waste and environmental management firm, Tetra Tech welcomes **Cornerstone Environmental Group** to our solid waste practice; expanding our capabilities and geographic presence throughout the United States.

**cornerstone**  
environmental

Visit us at WASTECON Tetra Tech Booth #1312  
Cornerstone Booth #1315

[tetrattech.com/waste](http://tetrattech.com/waste)



## ADMINISTRATION

A further problem with indemnification clauses is that the party with the leverage, typically the landfill owner, may overreach and insist upon a clause that is arguably unenforceable. How so? The most common example is an indemnity in which the indemnitee (party benefitting from indemnity) seeks to be indemnified for its own negligence. In many states, such as Illinois, these clauses are void against public policy in the context of construction contracts. In the non-construction context, the general rule is that an indemnification clause indemnifying a party against its own negligence is only valid if the contract expressly states that fact. Because much of a landfill developer's work is in the nature of construction, parties to a contract must make sure that in seeking broad protection, the indemnification clause is not made so expansive so that it is unenforceable. A suggested drafting solution is simply to ensure that the party giving the indemnity (the indemnitor) provides an indemnity only for its own conduct. A sample clause would be: "Indemnitor agrees to indemnify and hold harmless Indemnitee for claims arising from, arising out of, or occurring in connection with Indemnitor's

execution of the work." (Note: Because the enforceability of indemnification clauses is a function of State and local law, please consult your own lawyer for specific advice on these clauses. The example provided is for illustration only and should not be relied upon as legal advice.)

The other problem with indemnification clauses is that in many instances sample clauses are borrowed from other contracts that may have little relevance to the unique issues inherent in landfill gas contracts. Specifically, many indemnification clauses in use apply only to claims for personal injury or property damage. These clauses will not cover claims for environmental violations and may not cover claims alleging harm or the risk of harm to the environment as a result of pollution. A sample clause with broader coverage might be something like this:

Except to the extent that the same arises out of or is caused by the actions of the Lessor, Lessee shall defend, indemnify, and hold Lessor harmless against any and all claims, penalties, demands, actions, proceedings, liability, or losses of whatever nature (including reasonable attorney's fees) and for suits

and judgments and/or fines for violation of any state, federal, or local law arising out of (a) harm or risk of harm to the environment or the presence of hazardous materials in the soil, groundwater or otherwise on, within, under, or about the Premises; (b) violations or alleged violations of environmental laws; or (c) injury or death to person(s) or for damage or loss to property or for claims, penalties, demands, actions, proceedings, liability, or losses of whatsoever nature, arising out of or caused by Lessee's operations or activities, or the operations or activities of its agents, subcontractors, employees, servants, or other contractors, in connection with the Premises or any contiguous or non adjacent property under Lessee's control.

Yet a further nuance with indemnification clauses is that some courts only apply them for claims by third parties, as opposed to claims or threatened claims between the contracting parties or in situations where, for example, an environmental release or contamination exists but no one has yet made a claim. For example, if an employee of the landfill gas developer backs his truck into the garage of a neighboring resident, the property damage (damage to garage) to a

**LEE**  
**SUPPLY CO. INC.**

**Quality**  
**PEOPLE • PRODUCTS • SERVICE**  
*Since 1954*

**McELROY**  
RENTAL

**Largest HDPE Pipe Stocking Distributor in the Eastern United States**

**Your HDPE Specialists: Fabrication • Pumps • Fusion • Pipe**

**1-800-353-3747 • www.leesupply.com**

Twitter Facebook Google+



third-party (resident) arises from the fault of the developer. Thus, if the resident sues the landfill owner, the owner can seek indemnity from developer. But if the truck driver crashes into the landfill owner's garage, the indemnity may not apply because no third party has made a claim against the owner. An "indemnity agreement," one Illinois court has said, "is an agreement whereby the indemnitor agrees to protect the indemnitee from claims asserted against the indemnitee by third persons."

In the context of the onsite accident,

will the landfill owner have a claim against the developer? Yes, common tort principles apply, just as in any other vehicular accident. But if you want contract protection, it may be advisable to make sure the indemnification clause clearly covers second-party claims in addition to third-party claims. Here's an example:

Lessee assumes all the risk associated with its activities on the landfill site, and agrees to defend, indemnify and hold Lessor harmless against all claims, penalties, demands, actions, proceedings, liability, or

losses of whatever nature (including reasonable attorney's fees) and for suits and judgments and/or fines for violation of any state, federal, or local law, whether made by third parties or the Lessor, arising out of (a) harm or risk of harm to the environment or the presence of hazardous materials in the soil, groundwater, or otherwise on, within, under or about the Premises; (b) violations or alleged violations of environmental laws; or (c) injury or death to person(s) or for damage or loss to property or for claims, penalties, demands, actions, proceedings, liability, or losses of whatsoever nature, arising out of or caused by Lessee's operations or activities, or the operations or activities of its agents, subcontractors, employees, servants, or other contractors, in connection with the Premises or any contiguous or non adjacent property under Lessee's control."

Last, the contracting parties should be aware that under the "American rule," the prevailing party in litigation is not entitled to attorney's fees unless a contract provides for them. Indemnification clauses not only transfer the risk of liability to the party at fault, but also impose the cost of defense upon the indemnitor.

### 6. Grounds for Termination

At the beginning of a contractual relationship, termination seems like a long way off. But it is important to give careful consideration both to the events that trigger termination and the procedures entitling either party to carry out the termination. Clear, and if possible, quantifiable termination events not only get the parties on the same page during the relationship, but also helps avoid messy, protracted litigation if something later goes wrong. It is generally true that the more ambiguous the contract, the more expensive it is to terminate it.

#### A. Clauses to Avoid

The types of termination clauses to avoid are those that are subjective in nature, such as the following:

1. Contractor shall use its best effort to complete the project on time and to obtain all necessary permits and sales contracts.
2. If Contractor shall fail for a six-month period to apply for or obtain necessary permits or obtain sales contracts, then the contract may be terminated.

The problem with the first provision is how does one prove or disprove that the contractor has used its "best efforts?" The standard of proof for any such showing would require

**ABUTECH** Advanced Burner Technologies

✓ THE INDUSTRY STANDARD

**CUSTOMIZATION  
EQUALS HIGHLY EFFICIENT  
COMBUSTION SOLUTIONS**

Michigan Brewery Waste-to-Energy Project

Emergency Back-up Flare for California Waste-to-Energy Project

VISIT US AT  
**WASTECON  
BOOTH 1601**

**SILOXANE FLARE IN NATION'S  
LARGEST WASTE WATER  
TREATMENT FACILITY**

Visit our blog for more blogs solutions: [www.abutech.com/blog](http://www.abutech.com/blog)

[www.abutech.com](http://www.abutech.com) f t in

intensive interviews and fact discovery with uncertain chances of success. On the other hand, remember that if you are the developer, you may want to consider suggesting such a clause. But if you succeed, make sure you document your "efforts" in the event they are ever questioned.

The problem with the second provision is similar: if the contractor simply "applies for" a permit is that adequate due diligence? If it makes one sales call every six months is that adequate? Again, fuzzy standards lead to high legal bills.

### B. Better Clauses

Negotiation over termination clauses allows both parties to articulate what is important to them in the contract. What are your priorities? Getting the project up-and-running within a certain time frame? Staying in compliance? Making the highest royalty? Obtaining carbon credits or renewable energy credits?

The termination clauses allow you to articulate the conditions under which the parties may commence the serious process of terminating the agreement. Here are a few examples of clauses with more specificity:

1. If the LFG generation rate landfill gas provides falls below an average of 250 cfm over a 180-day period due to no fault of the Owner, the Owner may issue the Developer a Notice of Default. If the LFG generation rate does not exceed an average of 250 cfm within the 90-day period after the date of the Notice of Default, then the Owner may issue the Developer a Notice of Termination.
2. If the annual total royalties paid to Owner are less than [e.g., \$100,000 per year] in any year/month commencing upon the date the Developer begins delivery of electrical energy from the Premises to customers.
3. If developer's manner of operation causes Owner to be subjected to a governmental enforcement action for alleged violations of environmental laws and developer does not resolve the enforcement action on Owner's behalf within six months after receipt in accordance with the Indemnification provisions.
4. The Owner may issue the Developer a Notice of Default if the Developer breaches any of its material duties or obligations under this Agreement, and such breach is material to the Owner's rights and benefits under this Agreement.

Note how the first clauses quantify the performance obligation. There should be little,

if any, dispute over whether the standard has or has not been achieved. The third clause addresses an often-important issue in LFG contracts; specifically, those occasions where the owner and developer have different conceptions of the importance of maintaining compliance. Notice here that the clause covers "alleged" violations, not "adjudicated" or final violations. This type of clause may be used if you are sensitive about receiving "notices of violation" of any sort and want the right to terminate the contract if the violation is not adequately resolved.

The last clause is a catchall that typically cuts both ways. In the absence of a termination clause, the general rule is that a party to a contract can only terminate the contract if a breach is "material," generally defined as going to the heart of bargain. (For example, you hire a contractor to build a garage and he doesn't build it.) For non-material breaches, the non-breaching party may recover damages. This clause, then, essentially re-affirms the common law principle, but puts both parties on notice that material breaches may lead to contract termination.

**Nu-Matic Pumps** 

Visit us!  
**WASTECON**  
booth #811

**Submersible Pumps**

**NEW** Non-Stick Coated Float

- More Run Time
- Less Build-Up
- **SALE! \$1,495.00**

\*sale ends September 30, 2015

Now expanding our  
Global Pump Distributor Network.  
for more information contact:  
dmillan@landtecna.com

 **WWW.LANDTECNA.COM**  
**800.LANDTEC**



**7. Notice of Default and Cure**

Defining termination events is only half of the story. The other half concerns the procedures for enforcing the termination. It is generally not good style for a termination event to automatically end the contract, with no action by either party. For example, the contract relationship may be proceeding smoothly, with each party benefiting, when a government inspector issues a misguided NOV, or gas flows unexpectedly experience a temporary decline. These events may trigger a termination that neither party wants. (Keep in mind that the two parties to a contract can also agree not enforce a particular provision or amend any part of a contract. Automatic termination clauses, however, may bring in other decision-makers who will want to enforce the contract as written.)

The standard way to deal with termination events, as suggested by some of the clauses above, is to require a notice of default and opportunity to cure before the termination actually takes event. Here is a sample provision:

*Termination Procedures:* In order to terminate this Agreement, a Party must first issue the other Party a Notice of Default. The

Party in receipt of such Notice of Default shall then have the opportunity to cure the identified default within the specified cure period. If the Party in receipt of such Notice of Default fails to cure the specified default within the cure period, then the other Party may issue a Notice of Termination.

The parties may then condition the Notice of Termination further by treating this notice as a "Notice of Dispute" for purposes of invoking the dispute resolution procedures. (See below). Here is a sample clause:

Upon issuance, a Notice of Termination shall be deemed a Notice of Dispute and shall be submitted to dispute resolution in accordance with the Dispute Resolution provision.

Again, the key here is to agree on both the events triggering termination and the procedures the parties want to follow prior to enforcing that termination.

**8. Ownership of Equipment Upon Termination**

A main reason for drafting clear and meaningful termination provisions is because sorting out the ownership of equipment post-termination is no simple task. Most

LFG equipment is below ground, and the rest may have been specially purchased for the landfill. The equipment may be permitted in the name of the Contractor, giving the Owner no right to use it until a permit modification is completed. The equipment may be dilapidated and fixed to the real estate. Absent specific contract provisions governing the ownership of the equipment at termination, the parties would face a myriad of common law principles that may difficult to untangle. These include:

- Equipment that is made part of the real estate is generally considered a fixture and hence the property of the land owner.
- Are there liens on the equipment?
- Who has the permits?
- Is there contamination resulting from usage of the equipment or abandoned drums of oil, solvents, or other liquids?

Another difficult problem concerns how a developer can get a return on its investment if the contract is terminated early in the relationship. Here are some sample provisions to address these issues:

1. Upon termination, at the option of the contractor, all the aboveground equipment listed on Exhibit A hereto shall

**COVERING YOUR LANDFILL**

Ask about our NEW Dura+Skrim® Odor/Gas Barrier R-Series Options!

**LANDFILL COVERS & TEMPORARY CAPS**

Landfill covers provide a protective barrier between the elements and landfill waste, to reduce the accumulation and costly treatment of leachate. For over 50 years, Raven has designed and manufactured performance engineered geomembrane liners and covers to meet specific requirements, including critical NSF and GRI-Givi22 standards.

- Reduce leachate and green house emissions
- Save cost with large size-to-fit factory welded panels
- Odor control with aesthetically pleasing durable covers
- Available in smooth or custom textured surfaces



Dura+Skrim® R-Series products are manufactured using high strength resin laminated together with molten polyethylene and woven reinforcement for superior performance. Available in 25 mil.



Dura+Skrim® R-Series products are built from select high-grade resin and dense high-capacity fiber reinforcement to provide unmatched tensile resistance and dimensional stability. Available in 45 mil.



Call us: (800) 635-3456  
www.ravenfd.com

821 W Algonquin Street, Sioux Falls, SD 57104



# WG WatershedGeo™

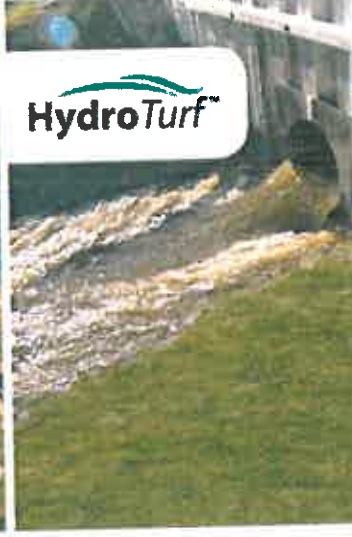
*Unearthing Solutions*

Where we understand today's challenges are best met with innovative thinking that deliver results exceeding tomorrow's expectations.



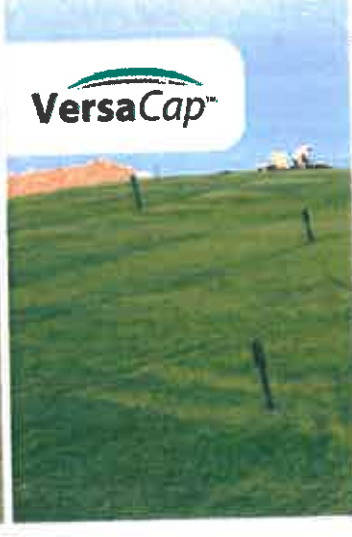
**ClosureTurf™**

An EPA, Subtitle D Compliant landfill closure solution that is specifically designed to address and solve soil erosion, slope integrity, gas emission, installation and maintenance cost control, EPA regulation compliance, and longevity of structure and appearance.



**HydroTurf™**

An engineered revetment solution specifically designed to provide armoring of hydraulic structures against high velocity and shear stress. It offers the aesthetics of vegetation combined with better performance than traditional hard armor.



**VersaCap™**

An aesthetically pleasing, rapidly deployed, gas and odor control, intermediate cover system designed to eliminate leachate production and erosion at the source.



**SynterraWall™**

A revolutionary approach to maintain the structural integrity of an MSE wall by covering the secondary reinforcement with an engineered synthetic turf. The system provides a UV-resistant and erosion resistant cover which functions to dramatically increase the longevity of the wall.

U.S. Patent Nos. 7,682,105, 8,585,322, 7,682,105 & 8,403,597 and Canada Patent No. 2,663,170 and all other U.S. & International Patents Pending are sole property of Watershed Geosynthetics LLC

**But our thinking doesn't stop there, we're committed to solving earth's greatest challenges.**

**Please give us a call, we'd love to help you solve whatever challenges you're facing.**

**770.777.0386 • [watershedgeo.com](http://watershedgeo.com)**



WRA Hartford, CT Landfill (34 acre ClosureTurf™ installation with 1.0 MW Solar Array)

become the property of the contractor, except for building foundations. The contractor, in carrying out its removal activities, shall restore the property to the same condition it was in at contract inception. But if the contractor does not remove such equipment within [e.g., 1-3] months after termination, the equipment shall be considered abandoned and become the property of the landfill owner.

2. All below ground equipment listed on Exhibit B shall become the property of the landfill owner.
3. The contractor agrees to assist the Owner in processing any necessary permit modification to carry out any change in ownership of the equipment.

Clause (1) gives the contractor the right to remove its aboveground equipment but imposes a deadline on the removal. A removal deadline is important to ensure the equipment does not interfere with future activities.

Clause (2) is a standard clause and essentially reiterates the law of fixtures, but it does not account for circumstances where termination occurs early in the contract. The parties should discuss whether this

clause should be modified to account for early termination. If the contract does not account for early termination, and the owner seeks to assert its ownership rights, it may be technically correct but still be the target of a lawsuit for "unjust enrichment" or other equitable claim.

Here is a sample clause to deal with an early termination:

1. If termination occurs within [e.g., 1-3] years from contract inception, Owner shall pay contractor the depreciated value of the belowground equipment.
2. If the parties cannot agree on a price, they shall jointly retain and pay for an independent appraiser, knowledgeable in the area of landfill gas collection and control equipment, to value the equipment, structures, and installations in question. The appraiser's valuation shall be final.

Of course, these clauses are simply illustrations but raising the issue would no doubt trigger alternative language or concepts.

### 9. Insufficient and Excess Gas

It goes without saying that a LFG development project should never occur unless the developer has a degree of confidence in

expected gas volumes. Thus, it is important, from the Owner's perspective, to make sure that it makes no warranties or representations of gas quality or volumes and that the developer relies upon its own estimates of volumes.

On the other side of the coin, however, the parties may also want to address the consequences of there being more gas than anticipated. Although this may seem to be a good problem to have, it may not be so advantageous if the developer's own supply contract limits the amount of gas its customer can use. Suppose the developer cannot manage the excess gas, resulting in uncollected gas, which in turn leads to violation notices and odors. Should the developer be required to install an additional flare or other treatment device to manage the excess gas, or is the excess gas now the responsibility and asset of the Owner? Depending upon the length of the contract and the development plans for the landfill, it is important to think through the rights and responsibilities of the parties for excess gas in the beginning of the relationship, rather than at the point where the parties discover they have no means to treat or manage unexpectedly high gas volumes.



Our team of engineers, scientists and planners work with you to provide:

- **Waste planning:** Develop short- and long-term goals for your solid waste systems
- **Facility and construction planning:** Optimize your site for more efficient operation
- **Value engineering:** Collaborate to implement a site-specific plan after assessing your needs
- **Regulatory compliance:** Meet regulatory and industry requirements, including environmental, health and safety
- **Creative options:** Innovative products, such as **GolderWatch™**, help you maintain compliance, anytime, anywhere

[www.golder.com/us/waste](http://www.golder.com/us/waste)

Visit us at WASTECON Booth #711





# Hidden Benefits of Compaction & ADC

Sometimes it seems that the term *airspace*—as vital as it is to good landfill practice—has been diluted through familiarity and overuse. Sure we hear it, but it just doesn't mean all that much. "Save airspace; airspace is important; airspace is valuable; airspace is...."

BY NEAL BOLTON

**I**t's like the word, "sale." I remember my dad telling me that 50 years ago, when something was "On Sale" it actually was. A sale was a big deal. Nowadays, a sale sign doesn't mean diddly.

Yet even though familiarity has bred contempt with "sales," perhaps there is some hope for airspace. Consider this fact: During a recent webinar, I polled a group of landfill managers, asking them how important compaction was. How did they answer? Very well, thank you: 80% said that compaction was their most important operational issue—*most important!*

So what are these landfill professionals actually saying? Is it that they are, "Excited

about spending a million bucks on a compactor?" . . . or that they, "Just can't wait to rack up \$7,000 a month in fuel bills?" I doubt it. They are saying that optimizing their landfill's airspace is so important that they will do whatever it takes to get it right.

Clearly, these folks believe that compaction and reducing cover soil use is a major factor in the airspace equation. So do I. And, I believe there is much more to the airspace equation than our industry generally plugs into it. Not convinced?

Consider this level of detail: One of the models we've created for evaluating landfill operations contains a separate equation for calculating the optimum daily (or multi-

day) cell geometry. It's a Differential Equation that takes into account things such as dozer cost versus push distance, soil cover cost, ADC cost, compactor speed, slope, compactor productivity, etc. That's right: a differential equation—applied to landfill operations! It's the kind of math engineers slugged through in college. Punching away on their HP calculators, wondering: "Will I ever use this stuff in the real world?"

Well, the answer is: "Yes, if you want to solve big hairy equations—and then apply those solutions to the real world of, say . . . airspace optimization."

The other "most important" factor in landfill operations is cover soil—or rather, it





is the volume of airspace that is consumed by cover soil. In more than 30 years of measuring landfill production rates, efficiency and airspace utilization, overuse of cover soil is still the most significant issue.

Sure, I could go on about how rich I'd be if I had a dollar for every cubic yard of airspace that's been unnecessarily filled with soil, but let's stick to reality. Just think how rich you could be if you stopped filling your landfill with cover soil!

Like an old dog turning in circles, looking for someplace to lie down, we go round and round the idea, never quite getting comfortable with airspace as the landfill issue. That's right: it's not an issue—or even an important issue. Airspace is the issue.

But I'm concerned that—as it did for the rebellious dog in Gary Larson's *The Far Side* comic strip—more talk about airspace will just sound like so much blah, blah, airspace, blah, blah, blah.

So, let's forego the word and take a look at the many ways to improve your bottom line by effectively managing your landfill's you-know-what. We'll examine some of the first string benefits, along with some that are a bit less evident—but which still

## Eighty percent of polled landfill managers said compaction was their most important operational issue —most important!

qualify as heavy hitters on your balance sheet. We'll finish up by reviewing how to rope, corral, and put your brand on some of those hidden benefits.

Since we'll be evaluating a number of different factors, let's start by characterizing what might be a "typical" landfill. It's a landfill that receives 104,000 tons per year . . . or 400 tons of waste per day (at 260 days per year), charges \$40 per ton and has an estimated closure/post-closure cost of \$11 million. The current situation is as follows:

### Current Operation

- 40 years of remaining life
- Cover soil ratio is 3:1 (25%)
- Effective density (a.k.a. apparent density) is 1,200 pounds/cubic yard

But with some simple operational changes we can increase the efficiency of the compactor and also implement a more effective ADC program to cut back on soil used for daily and intermediate cover. Based on making these kinds of changes, some landfills see dramatic change, but with even moderate improvement you could see numbers like this:

### Improved Operation

- 46.7 years of remaining life
- Cover Ratio is 5:1 (16.7%)
- Effective Density is 1,400 pounds/cubic yard

### Increased Landfill Life

Sure, longer life is an obvious benefit of packing the heck out of the trash you receive—and using less soil to cover it. Do these two things, and your landfill will last longer. And, based on the general public's universal misconception that our landfills are running out of capacity, you'll score



Waste Cover   Seeding   Erosion Control   Odor Control   Dust Control   Equipment

## The most effective, versatile, and cost-efficient cover system for landfills



Posi-Shell ENVIRONMENTAL COATINGS   Posi-Cube SEED & SOIL GUARD   Posi-Shell EROSION CONTROL   Delor-Shell COMPOST ELIMINATOR   Posi-CLEAR

[www.landfill.com](http://www.landfill.com)  
1-800-800-7671

Visit Us at WasteCon Booth 1216

**Introductory Offer on Posi-Cube**  
**TAKE 10% OFF!**  
FIRST ORDER OF 5 PALLETS OR MORE  
Must Supply Promo Code when ordering: MSWCUBE15  
Order must be invoiced by 11/30/15.  
Discount does not apply to shipping costs.



# Hidden Benefits of Compaction & ADC

Sometimes it seems that the term *airspace*—as vital as it is to good landfill practice—has been diluted through familiarity and overuse. Sure we hear it, but it just doesn't mean all that much. "Save airspace; airspace is important; airspace is valuable; airspace is..."

BY NEAL BOLTON

**I**t's like the word, "sale." I remember my dad telling me that 50 years ago, when something was "On Sale" it actually was. A sale was a big deal. Nowadays, a sale sign doesn't mean diddly.

Yet even though familiarity has bred contempt with "sales," perhaps there is some hope for airspace. Consider this fact: During a recent webinar, I polled a group of landfill managers, asking them how important compaction was. How did they answer? Very well, thank you: 80% said that compaction was their most important operational issue—*most important!*

So what are these landfill professionals actually saying? Is it that they are, "Excited

about spending a million bucks on a compactor?" ... or that they, "Just can't wait to rack up \$7,000 a month in fuel bills?" I doubt it. They are saying that optimizing their landfill's airspace is so important that they will do whatever it takes to get it right.

Clearly, these folks believe that compaction and reducing cover soil use is a major factor in the airspace equation. So do I. And, I believe there is much more to the airspace equation than our industry generally plugs into it. Not convinced?

Consider this level of detail: One of the models we've created for evaluating landfill operations contains a separate equation for calculating the optimum daily (or multi-

day) cell geometry. It's a Differential Equation that takes into account things such as dozer cost versus push distance, soil cover cost, ADC cost, compactor speed, slope, compactor productivity, etc. That's right: a differential equation—applied to landfill operations! It's the kind of math engineers slugged through in college. Punching away on their HP calculators, wondering: "Will I ever use this stuff in the real world?"

Well, the answer is: "Yes, if you want to solve big hairy equations—and then apply those solutions to the real world of, say ... airspace optimization."

The other "most important" factor in landfill operations is cover soil—or rather, it





is the volume of airspace that is consumed by cover soil. In more than 30 years of measuring landfill production rates, efficiency and airspace utilization, overuse of cover soil is still the most significant issue.

Sure, I could go on about how rich I'd be if I had a dollar for every cubic yard of airspace that's been unnecessarily filled with soil, but let's stick to reality. Just think how rich you could be if you stopped filling your landfill with cover soil!

Like an old dog turning in circles, looking for someplace to lie down, we go round and round the idea, never quite getting comfortable with airspace as the landfill issue. That's right: it's not an issue—or even an important issue. Airspace is the issue.

But I'm concerned that—as it did for the rebellious dog in Gary Larson's *The Far Side* comic strip—more talk about airspace will just sound like so much blah, blah, airspace, blah, blah, blah.

So, let's forego the word and take a look at the many ways to improve your bottom line by effectively managing your landfill's you-know-what. We'll examine some of the first string benefits, along with some that are a bit less evident—but which still

## Eighty percent of polled landfill managers said compaction was their most important operational issue—most important!

qualify as heavy hitters on your balance sheet. We'll finish up by reviewing how to rope, corral, and put your brand on some of those hidden benefits.

Since we'll be evaluating a number of different factors, let's start by characterizing what might be a "typical" landfill. It's a landfill that receives 104,000 tons per year . . . or 400 tons of waste per day (at 260 days per year), charges \$40 per ton and has an estimated closure/post-closure cost of \$11 million. The current situation is as follows:

### Current Operation

- 40 years of remaining life
- Cover soil ratio is 3:1 (25%)
- Effective density (a.k.a. apparent density) is 1,200 pounds/cubic yard

But with some simple operational changes we can increase the efficiency of the compactor and also implement a more effective ADC program to cut back on soil used for daily and intermediate cover. Based on making these kinds of changes, some landfills see dramatic change, but with even moderate improvement you could see numbers like this:

### Improved Operation

- 46.7 years of remaining life
- Cover Ratio is 5:1 (16.7%)
- Effective Density is 1,400 pounds/cubic yard

### Increased Landfill Life

Sure, longer life is an obvious benefit of packing the heck out of the trash you receive—and using less soil to cover it. Do these two things, and your landfill will last longer. And, based on the general public's universal misconception that our landfills are running out of capacity, you'll score



 Waste Cover
  Seeding
  Erosion Control
  Odor Control
  Dust Control
  Equipment

## The most effective, versatile, and cost-efficient cover system for landfills

**Introductory Offer on Posi-Cube**  
**TAKE 10% OFF!**  
**FIRST ORDER OF 5 PALLETS OR MORE**  
Must Supply Promo Code when ordering: **MSWCUBE15**  
Order must be invoiced by 10/30/15  
Discount does not apply to shipping costs







[www.landfill.com](http://www.landfill.com)  
**1-800-800-7671**

Visit Us at WasteCon Booth 1216

## LANDFILL

some social points by telling folks your landfill life has increased from 40 years, to 46.7 years. But such facts just don't generate much "Wow," because most people "in the business" want benefits they can see and touch—during their lifetime . . . or at least during their career. Want wow? Focus on *now*.

### Deferred Capital Costs

So let's talk about, "now." Extend your landfill's life, and you'll also be able to shift subsequent liner cost projections further into the future. That savings can be expressed in dollars . . . that often total into the millions.

On one of our current projects, a long-time client is finally scheduling to build liner next year . . . after successfully deferring that \$3 million cost for nine years beyond their original plan. How did they do it? By rebuilding settled perimeter slopes and becoming a lot more efficient in regard to compaction and use of ADC. At an average interest rate of 4%, \$3 million delayed for nine years equates to a net present value (NPV) of approximately \$2.1 million—about \$100,000 per year (\$900,000) in savings.

When you do a good job of compacting and covering at your landfill, you too will find that "liner" procrastination pays.

Of course this same approach can be applied to other aspects of landfill operation, such as closure. A common strategy is to bring portions of the landfill to within a lift or two of final grade, and



Any of several ADC approaches can save a lot of airspace.

then progress on the next area. Hitting the pause button on your fill sequence plan allows time for decomposition to do its work, creating more airspace through settlement.

However, by putting your landfill into a prolonged holding pattern, you may have to deal with the same issues you'd have if those areas actually closed. Drainage, infiltration, landfill gas, and erosion need to be controlled during this period of interim filling.

One way to do this is to apply additional soil to those areas, and then seed and maintain them. Sort of sounds like final cover, huh? Or you could utilize a synthetic material, such as VersaCap. This product, manufactured by WatershedGeo, is purpose built specifically for landfills that need a long-term intermediate cover system.

These are the same folks that manufacture ClosureTurf, a synthetic final cover system that performs like a geomembrane—because it is a geomembrane—yet it looks like green grass that never erodes and doesn't require mowing.

### Cut the Cost of Financial Assurance

Every time you do something to extend your landfill's life, you're taking another bite out of the annual cost of your financial assurance for closure/post-closure. So, how does this work? Well, there are many models for financial assurance, but every one of them guarantees—in one way or another—that money will be set aside during the active life of the landfill, so that upon closure, there will be enough money to cover the cost of closure and post-closure maintenance.

A simplified calculation—of what financial folks call a Sinking Fund—indicates that if we wanted to have say, \$11 million on hand (at closure), we'd need to bank \$116,000 every year . . . for 40 years, taking into account compound interest. But if we improved the operation (as previously described), we'd have 46.7 years to build that \$11 million fund . . . and it would take only \$84,000 per year to do it.

This is an often-missed collateral benefit of improving your operation: an operational gimme that saves you another \$32,000 per year.

"Is this a big deal?" you might ask. "I mean it's only 31¢ per ton." Yes, it's a big deal, if you consider that you could cut your tipping fee to become more competitive . . . or delay raising your fee to maintain your competitive edge. It could also mean hiring another laborer, buying a new pickup or replacing a small tractor.

**ADD 6 TO 7**  
**YEARS**  
TO THE **LIFE**  
OF YOUR  
**LANDFILL**

From Industry Leading Technology to On-Site Service, Rusmar's proprietary FOAM technology is simply the most advanced and cost effective Alternate Daily Cover.



**GO RUSMAR. GO FOAM.**

on call | 800.733.3626

on the web | [www.rusmarinc.com](http://www.rusmarinc.com)



Yes, it's a big deal—and it's an automatic by-product of doing a better job of managing landfill capacity.

It's like reducing the annual contribution to your kid's college fund by asking them to postpone higher education . . . maybe until they are 45 years old. Oh sure, they might miss a fraternity party or two, but just think how much money you could save!

### Reduced Machine Hours

Generally I've observed that operational improvements that result in better waste compaction and less cover soil consumption are the result of being more efficient with machines. And as operators focus on making the right moves, many of the wrong (and inefficient) moves are eliminated. This means reduced machine hours, and more often than not, fewer machines.

After making some key operational changes, another of our recent clients eliminated several machines that were not being used under the new and improved operation. They transferred several machines from the Rust-In-Place column, to the Sold-At-Auction column of their balance sheet—and pocketed nearly \$900,000.

Wondering if your machines have some inefficiency? Try this simple test. Watch the dozer as it pushes a load of waste from where it is dumped—to the active face. Time how long it takes to push and return—let's say 90 seconds. This is one complete dozer cycle. Next, estimate how many tons the dozer takes in a single push—we'll assume it was 6 tons.

Now, get out your calculator. Divide 60 minutes (3,600 seconds) by the time required to make a single push/return cycle:  
 $3,600 \div 90 = 40$

Under ideal conditions your dozer could make 40 pushes per hour. At 6 tons per push, that works out to 240 tons per hour.

Finally, divide your daily tonnage by this production rate. The result indicates your dozer would have to work 1.7 hours per day in order to push a full day's worth (400 tons):

$$400 \text{ tons/day} \times 40 \text{ pushes/hour} = 240 \text{ tons per hour}$$

Here's where the math stops . . . and the thinking starts. If the primary job of your dozer is to push waste from the tipping pad to the active face—a task that takes 1.7 hours per day—what other things is it doing that requires it to log several times that many hours? Well, it is making clean-up pushes, and it's placing soil and/or ADC—but mostly it's just keeping busy and being inefficient.

### Less Differential Settlement

We've talked about differential equations, but let's move on now, to the topic of differential settlement.

Similar to differential equations, differential settlement is based on several independent, but interrelated factors, and then combines them all together, yielding an otherwise hard-to-estimate result.

Variables such as moisture content, waste type, inconsistent waste compaction, and random fill sequencing will usually result in some areas of the landfill settling faster/more than other areas. When that happens . . . *Voilà*: Differential Settlement.

There is a cost—albeit difficult to quantify—associated with differential settlement that can range from repair of minor erosion and ponding, to outright failure of roads, landfill gas extraction systems, and stormwater control structures.

As you might have expected, differential settlement can be

**"Longest lasting ADC tarp in the market"**



- Alternative Daily Covers
- Environmental Covers
- Windscreens
- Custom Rain Caps
- Compost Covers

Specializing in large tarps,  
Heavy-duty flame resistant, UV stabilized

Marlon@airspacesaver.com  
www.tarpsandcovers.com  
(800) 694-5515

A division of J & M Industries

Visit us at WASTECON Booth #1115



Intermediate storage cover

## LANDFILL

minimized by achieving good waste compaction during the active part of a landfill's life.

### More Gate Revenue

It's a simple concept: Pack more waste into your landfill . . . and pack more money into your wallet.

But here's the tricky part about revenue. You won't miss it until your landfill closes. In other words, the additional revenue generated by improving your compaction and daily cover operation won't show up until after you would have otherwise run out of capacity.

This plays out with our sample landfill by considering that it starts with 40 years of capacity—without making any improvements. So, we don't get the benefit of our improvements (i.e., additional revenue) until after 40 years. All of the revenue from that point on—until the landfill closes at year 46.7—is extra revenue.

If we simply run the numbers (an extra 6.7 years x 104,000 tons/year x \$40/ton), that extra revenue is significant: nearly \$28 million. However, by applying some economic factors to bring those future revenues back to a today's dollars—usually referred to



It's important to size your equipment for the task.

as Net Present Value (NPV)—the value decreases to approximately \$5 million.

NPV is an economic term that's rooted in the concept of compounding interest, and may seem a bit abstract if you aren't used to financial analysis. Essentially, it says that today's dollars are worth more than future dollars.

NPV gives us a tool for comparing today's costs (i.e., buy a bigger compactor) with some future benefit (i.e., more revenue).

Albert Einstein is quoted as saying, "Compound interest is the eighth wonder of the world. He who understands it, earns it . . . he who doesn't . . . pays it."

When it comes to funding landfill closure/post-closure, extending the landfill's life reduces your annual cost by putting compounding interest to work . . . for you.

### Reduced Leachate Handling Cost

If your landfill is one of an increasing number of sites that is thinking about

## RAPID AND EFFICIENT ADC System

Designed for Large/Medium Landfills

### ENVIRO™ COVER SYSTEM

Self-propelled Track Deployer 800 and  
Non-removable Geosynthetic Cover

See Deployer 800 in action at

[www.envirocoversystem.com/800video](http://www.envirocoversystem.com/800video)

#### Key Features:

- Powered by CAT engine
- Cost savings vs. soil traditional cover
- Reduces generation of leachate
- Saves airspace and helps control odor
- 3,200 sq. ft. cover per minute



**ENVIRO™ COVER SYSTEM**

**EPI Environmental Products Inc.**

Unit 207, 102 Grover Street, Lynden, WA 98264 Tel: (604) 738-6281 (866) 738-6281  
Email: [envirocover@epi-global.com](mailto:envirocover@epi-global.com) [www.envirocoversystem.com](http://www.envirocoversystem.com)



re-injecting leachate, here is something to think about. You could get rid of some leachate . . . and in the process, increase waste density and reducing cover soil use. "How?" you might ask. The answer is simple, but perhaps not too obvious.

The waste mass in a typical landfill is like a giant sponge that can hold a tremendous quantity of moisture. Of course this can vary widely depending on the type, age and initial moisture content of the in-place waste.

The amount of moisture waste can hold—without continuing to produce downward flow (i.e., seepage)—is referred to as "field capacity." When you hold a wet sponge until it stops dripping—at that point it's at field capacity.

The field capacity of waste can range from 0% for glass or plastic, to 80% for food or yard waste. Based on a conservative average of say, 25%, every ton of waste in your landfill could "hold" 500 pounds—or approximately 63 gallons—of water. Keep in mind that even though the waste already contains some moisture, like Jell-O: there's always room for leachate.

In our experience, we've found that when re-applying leachate to the active face of the landfill, a typical MSW landfill can receive an average of 25 gallons of leachate per ton of inbound waste. This increases the moisture content of the waste by approximately 10%, and can increase the density of the waste by 15%.

It's the landfill version of a perpetual motion machine. You spray 200 pounds of moisture onto a ton of waste, and by doing so it packs tighter, allowing you to add another 300 pounds of waste to its original volume. It would be like a diet where you ate two extra cheeseburgers . . . and lost 3 pounds!

So at our sample landfill, along with disposing 400 tons of waste at the active face, we could also re-apply approximately 10,000 gallons of leachate—every day. Assuming we could do this during a six-month dry season, the landfill could dispose 1.3 million gallons of leachate per year, onsite, and increase waste density in the process.

There are a lot of reasons for increasing compaction and decreasing soil, and while most of them are related directly to money, there are other reasons, too.

Landfills that effectively compact waste and minimize soil use, end up with a waste mass that is more uniform and homogeneous. This means better gas production, easier gas extraction, and more uniform distribu-

tion of re-injected leachate. It also results in fewer seeps and less differential settlement. Like the farmer who puts in the effort early on, in order to have a good crop, if you operate your landfill the right way today, you'll reap benefits right on down the line. That's a good lesson for most things in life.

After more than three decades of solving problems and optimizing landfill operations, I'm still surprised at how simple most answers are. If you plant beans, you get beans.

But the how-to is often just as simple.

## Compaction

Yes, there is a lot of engineering and science involved in the process of waste compaction, but, in the end—as with Great Whites and T-Rex's—it really comes down to the teeth. Compactors with big teeth, and a lot of teeth—operated effectively—will always achieve better compaction.

So, while it may not be appropriate to look a gift horse in the mouth, if you're looking for good compaction, you want to see the teeth—and a lot of them.

Sure, a tooth pattern that's too dense can

# 10 Reasons to Change the Way You Think About Daily Cover by Using the Proven Tarpomatic System



- 1 **Airspace**—saves valuable airspace
- 2 **Revenue & Cost**—more airspace = more revenue & reduced cover costs
- 3 **Speed & Productivity**—with 1 person only needing 15 minutes to deploy and 10 minutes to retrieve—save 100s of hours each year
- 4 **Fuel Savings**—installs with 1 person & 1 machine—less fuel, fewer machine hours, lowered maintenance costs
- 5 **Odors**—fully integrated deodorizing system
- 6 **Dust**—stop spreading soil for ADC—reduces dust
- 7 **Leachate**—waterproof to minimize leachate
- 8 **Landfill Gas**—less soil cover, improved gas collection
- 9 **Longevity**—high-strength construction with flame retardant, UV protection & antibacterial coating for a long working life
- 10 **Coverage**—each tarp covers 280 square yards & a spool 800+ square yards. Option to connect/disconnect spools, cover even the largest working face

## Tarpomatic

LANDFILL DAILY COVER

800-500-5069 • info@tarpomatic.com • www.tarpomatic.com  
512 45th Street SW • Canton OH 44706

## LANDFILL

plug up with wet waste or soil, but cleaner bars can alleviate that problem. Cleaner bars can be retrofitted to most machines—and some machines (i.e., Bomag) have them as an integral design feature. In the end, more teeth are better.

Same concept applies to machine weight. Operators recognize that heavier machines are more effective, and manufacturers have responded accordingly. In the '70s, Caterpillar released their first landfill compactor: the 816. Weighing a tidy 40,000 pounds, it could easily hide in the shadow of today's largest machines that are more than three times heavier!

The requirement for daily cover soil originates with Federal Rules—Subtitle D. These rules require landfills to cover with a minimum of 6 inches of soil—at the end of every operating day. However, after performing scores of measured tests, and observing hundreds of landfill operations, we've found that the 6-inch regulatory requirement for daily cover is an operational impossibility. Because of the unevenness of the waste surface, the average landfill uses 16 inches of soil for daily cover. This makes the use of ADC 250% more valuable than the regula-

tions might imply! ADC manufacturers know this, and we all benefit by those who have made a career out of creating a useful product—and educating our industry regarding its benefits and use.

Take for example EPI's Deployer Model 800. You won't find one of these on eBay. No sir, this is a state-of-the-art ADC unit. A purpose-built machine with only one purpose: to effectively replace soil with something that consumes virtually no airspace.

Other landfill operators opt for some type of spray-on ADC material such as foam or cement-based material that actually sets up . . . like a thin layer of dry-mix shotcrete (i.e., gunitite).

Tarps are another common type of ADC. Whether placed manually or mechanically, they offer the same important benefit: effectively covering trash—without consuming airspace.

Finally, some landfills use waste-derived material such as MRF fines, auto-shredder fluff, or wood/green waste mulch as ADC. These can offer the added benefit of providing revenue if you can charge a disposal fee as they come through the gate. This is referred to as Revenue Generating Cover (RCG)

—and just the sound of it makes some landfill managers swoon.

Choosing which type(s) of ADC to use is based on lots of factors, but usually comes down to performance, availability, and cost. Some landfills may utilize half a dozen different types—depending on weather conditions, accessibility and expected duration.

Changes generally progress linearly, and as our industry improves the tools needed for waste compaction and ADC, we also see landfill operators becoming more sophisticated in how they use those tools. Think of differential equations for daily cell development . . . or more detailed fill sequencing to optimize airspace utilization. Like a mechanic with a box full of tools, having the right tools is important, but knowing when and how to use them is infinitely more important. **MSW**

*Neal Bolton is a consultant specializing in landfill operations and management.*

For related articles:

[www.mswmanagement.com](http://www.mswmanagement.com)

Visit us at WASTECON Booth 1536

IDS TARP DEPLOYMENT SYSTEM

TARP DEPLOYMENT SYSTEM

Equipped with tarpLOX Tarp Control System

# MANAGING AIRSPACE

- Stores up to 12,000 sq ft of tarp at one time!
- Deploys and retrieves multiple tarps in minutes
- Attaches to existing landfill equipment
- Reduces landfill operational cost
- Operates by wireless remote control from the safety of the equipment cab
- Reliable, robust, economical design
- Visit our website to see a demonstration



## Tarp Deployment System

A Division of Southwestern Sales Co. 800-427-9368 [www.tarpARMOR.com](http://www.tarpARMOR.com)





# Obtaining Investment for LFGTE

Approaches to getting funding for LFGTE projects BY DOUGLAS E. LAMB

Owners of landfill gas-to-energy (LFGTE) projects face market and regulatory drivers that are forcing LFGTE owners to consider new ways to monetize their landfill gas (LFG). This article will discuss alternatives to the electrification of LFG. Included in that discussion will be a consideration of the process for developing non-electric LFG strategies, financing considerations for such deals, and workable deal and financing structures.

For more than 25 years, most LFG deals have been structured in a similar fashion: a landfill owner sold gas rights to a landfill gas project developer/owner who built an LFG-fired power plant from which the developer sold energy, capacity, and RECs to a local utility or other buyer, or into the merchant market. The developer might also have monetized tax credits through the sale of equity interests in the project owner. Based on the stream of income from contracted sales, the LFGTE owner financed the project with tax exempt or taxable debt, including vendor financing. Key to the economics of this traditional model for LFGTE projects was a reasonably high price for electricity and a distinct cost advantage of LFG over delivered natural gas particularly when environmental and tax attributes were taken into consideration.

The economic and regulatory underpinnings for that traditional LFGTE model are now eroding. Fracking and horizontal drilling have dramatically increased US gas production. As a result, the price of natural gas has fallen from a high of \$12.41 per thousand cubic feet in June 2008, to \$3.71 per thousand cubic feet in March 2015 (US EIA). The growing regulation of coal and the falling price of natural gas have driven utilities to shut coal plants or convert them to natural gas. Electricity prices have become increasingly tied to the price of natural gas. And as the price of natural gas has fallen, so has the price of electricity. Growth in energy efficiency and sluggish economic and population growth have reduced elec-

tricity demand in some places and slowed its growth almost everywhere else. Prices for both electric energy and capacity have fallen in response to these market forces. REC pricing, on the other hand, has dropped from over \$5 per REC, to below \$1 per REC (US DOE). To be eligible for the production tax credit under Section 45 of the Internal Revenue Code of 1986, as amended, construction on a LFGTE electricity projects must have begun prior to January 1, 2015.

While the economics of the traditional project model have been eroding, other forces have created attractive alternatives to this model. The falling price of natural gas has encouraged the conversion of municipal and commercial car and truck fleets from gasoline to natural gas. The anticipated rising value and increased liquidity of RINs and, in California, credits associated with the low carbon fuel standard (LCFS) have provided a new source of potential revenue for LFGTE owners. New state and local efforts to divert foodstuffs and other green materials from landfills have produced a viable feedstock stream for gas-producing digester projects and threaten the gas production yields for existing landfills.

LFG owners and developers who are seeking alternatives to LFG-to-electricity projects should consider taking advantage of these new market and regulatory advantages. High BTU projects (LFG-to-pipeline gas), compressed natural gas (CNG) and LFG-to-liquids are the alternative project types that have seen the most activity.

The financing considerations for these alternatives to LFGTE projects ("LFGA") are similar to the financing considerations for LFGTE projects. A common dilemma for many LFGTE projects is that the project to be financed is too small to efficiently bear the transaction and deal costs of a traditional project financing, yet too large to be built completely from developer equity. Many LFGA projects will face this same dilemma. As discussed in more detail below, the availability of state and federal financing programs, and tax-exempt

financing, may be ways to address this issue, at least in part. Corporate guarantees and financing a transaction with a low loan-to-value ratio may also be viable workarounds. But the problem is likely to be a persistent and difficult one for LFGA projects that cost between, say, \$10 million and \$40 million. In addition, where an LFGTE project is being converted to an LFGA project, owners will need to consider whether an existing loan on the project either prohibits the conversion (or any construction-related shut down of operations) or will otherwise need to be refinanced in connection with the conversion.

In any case, but particularly where the project is the principle security for the loan, the first consideration is to make sure that the project contracts are structured in a way that is suitable for financing your need. For project loans, the borrower will need to have control of the project site and easements and other access rights necessary to construct and operate the project for a period of time, at least long enough to fully amortize the loan and, in any case, several years longer than the maturity date of the loan. The borrower will need clear rights to use the technology employed in the project under the terms of suitable license agreements (which may be contained in the EPC contract or otherwise). All discretionary permits will need to be in place or clearly obtainable as typically verified by an independent engineer or insurance consultant. The gas rights agreement will need to clearly delineate the developer's rights to gas from the landfill or other source. Gross royalties may be payable to the landfill owner ahead of debt service, but royalty payments must be sized to work within the required debt service coverage ratios of the financing. To the extent that gas studies of the landfill resource depend on the borrower's rights to use gas from expansion areas of the landfill in order to supply the LFGA project for the life of the loan, the gas rights agreement must clearly grant use rights in those expansion areas.

For development projects financed with project debt, the project should ideally be constructed pursuant to an engineering, procurement and construction contract (EPC Contract) in which the general contractor bears full responsibility for delivering a completed project ready for commercial operation. EPC Contracts will need to have a lump sum price (subject to adjustment for change orders), a firm delivery date with liquidated and other damages for late delivery, and a clear set of performance standards that must be met on the specified commercial operations date. If the EPC contractor fails to meet those performance standards, then the contract will need to provide for liquidated damages that, to the extent possible, are keyed to the revenue loss the project will suffer if it performs at less than the expected performance standards. In reality, the size of an LFGTE or LFGA project often make it impractical for a developer to incur the additional cost associated with an EPC Contract and a traditional project finance structure. In that case, borrowers will need to satisfy lenders that the construction risks are effectively contained. The use of proven equipment in

customary configurations installed by very experienced contractors may be sufficient to meet lender's concerns in an LFGA project, as so much of the construction cost and risk is equipment-related cost. A lender's comfort in a non-EPC Contract project will also be increased if the project budget has plenty of contingency built in. Where necessary, a corporate guaranty from the developer may also be a cost-effective way to obtain debt financing without going to the expense of an EPC Contract and related transaction costs of a traditional project financing.

As between the owner and the contractor, all technology risk, and all performance risk associated with technology, should be borne by the EPC contractor. In some cases, if the lender perceives the technology risk to be too high, even if borne by the EPC contractor, the lender may reject the loan in the first place. New technologies are not favored until proven at scale and over time—that is, until they are no longer new.

In the case of LFGA projects, the offtake agreements will be gas purchase agreements rather than power purchase agreements as in an LFGTE project. Pricing under these offtake agreements should be keyed to the

project pro formas and, where applicable, debt service. If the offtake pricing adjusts on the basis of an outside index, such as the price of conventional natural gas, then the owner and lender bears the risk that an unexpected change in the outside index will disrupt the project economics. Lenders may require additional protection (e.g., natural gas hedges) for this type of risk, which can add expense. In addition, placing a floor on offtake prices determined on the basis of cash flow necessary to cover debt service may be a means of getting the benefits of an outside index when prices are rising but having necessary protections if the index falls more than expected. An important part of the revenue stream of an LFGA project is likely to be proceeds from the sale of RINs and LCFS. The US Environmental Protection Agency has adopted rules regarding third-party verification of RINs titled the "Quality Assurance Program" ([www.epa.gov/oms/fuels/renewablefuels/qap.htm](http://www.epa.gov/oms/fuels/renewablefuels/qap.htm)). California Air Resources Board has provided guidance on the use and sale of LCFS credits ([www.arb.ca.gov/fuels/lcfs/lcfs.htm](http://www.arb.ca.gov/fuels/lcfs/lcfs.htm)).

Developers must choose the financing structure that works best for their project

YARD AND FOOD WASTE

• LOW-MAINTENANCE OPERATION

• MAXIMIZED BIOGAS PRODUCTION

How do you  
maximize the value  
of your organic waste?

Eisenmann's fully automated anaerobic digestion solutions turn today's organic waste into tomorrow's green energy.



**EISENMANN**

Free Webinar "Anaerobic Digestion of Organic Waste Streams"  
[forester.net/organics](http://forester.net/organics)

[organics@eisenmann.com](mailto:organics@eisenmann.com) • [www.eisenmann.us.com](http://www.eisenmann.us.com)



and their own financial constraints. Here are some of the choices that need to be made, and related considerations:

**Equity:** Will the developer use its own equity, bring in equity from an active strategic partner, or seek tax-advantaged equity or other passive equity from a passive investor? As noted above, for projects that fall in the \$10MM–\$40MM range, higher levels of equity may be required because of the difficulty of efficiently structuring debt for smaller projects, particularly when the debt represents a significant portion (more than 50%) of the capital structure. Equity-like funds may be provided through a partnership with a fleet owner, or other offtaker, who effectively supplies a portion of project costs but without receiving an equity ownership interest in exchange.

**Debt:** Assuming that the developer chooses to use debt financing, is the best fit commercial bank debt, taxable bonds, tax-exempt municipal debt, debt available from state green infrastructure funds (as straight debt or credit enhancements), or federal loan funds from USDA or DOE? Perhaps vendor financing will be available for a portion of the equipment price. The

availability of each type of financing will vary based on the nature of the project, its location, and the commercial basis of the project contracts.

Tax-exempt bonds are often the most attractive means of financing an LFGA project. Tax-exempt transactions can be structured in a variety of ways under existing tax law. The most common bond structures are these:

**Solid Waste Exempt Facility Bonds:** These tax-exempt bonds may be issued for LFGA projects that are part of landfill facilities.

**Qualified Energy Conservation Bonds (QECBs):** These are taxable bonds for which either the bond investor receives tax credits or the issuer elects to receive a cash rebate in lieu of the investor receiving a tax credit. A QECB may be used for a project that meets the “Green Community Program” guidance issued by the Internal Revenue Service ([www.irs.gov/pub/irs-drop/n-12-44.pdf](http://www.irs.gov/pub/irs-drop/n-12-44.pdf)).

**Pre-pay transactions:** In these deals, the proceeds of the bonds are used to pre-purchase gas from the generator/LFGA owner. The bond proceeds are used to purchase natural gas in advance of delivery. The

advance gas purchase is made by or for a governmental utility for use in the utility’s services. Thus, the developer/owner receives the proceeds of the tax-exempt bond issue at the closing of the bond transaction and is able to use those proceeds to finance the construction of the project, to fund reserves, and to pocket the excess as advance profit.

#### Sources

US Department of Energy (US DOE), Office of Energy Efficiency and Renewable Energy. National Voluntary REC Prices, January 2008 to April 2015. US Energy Information Administration (US EIA). US Natural Gas Electric Power Price, Monthly. **MSW**

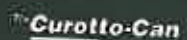
*Douglas E. Lamb is a co-chair of McGuireWoods LLP’s renewable energy and cleantech sector group.*

For related articles:

[www.mswmanagement.com](http://www.mswmanagement.com)

## New ESG Innovations Are Rolling Out

We've developed the most technologically advanced line of complete waste stream products. Now it's time to see how these innovations improve your bottom line. Visit [doveresg.com](http://doveresg.com) to learn more.







**Environmental Services Joint Powers' Authority  
Board of Directors' Meeting**

**Thursday, October 15, 2015**

**Technical Advisory Group**

**Breakout Session**





Department of Resources Recycling and Recovery  
Site Safety and Health Plan

---

**Butte Fire Incident  
Amador & Calaveras Counties, California**

**September 2015**

## Table of Contents

<b>1. Introduction</b> .....	<b>1</b>
<b>2. Background</b> .....	<b>3</b>
<b>3. Scope of Work</b> .....	<b>4</b>
<b>4. Key Personnel &amp; Responsibilities</b> .....	<b>7</b>
<b>5. Logs, Reports and Record Keeping</b> .....	<b>10</b>
<b>6. Hazard Assessment</b> .....	<b>11</b>
<b>7. Safety Inspections</b> .....	<b>25</b>
<b>8. Standard Field Activity Procedures</b> .....	<b>26</b>
<b>9. Work and Support Areas</b> .....	<b>29</b>
<b>10. Personal Protective Equipment</b> .....	<b>31</b>
<b>11. Decontamination Procedures</b> .....	<b>34</b>
<b>12. Site Monitoring</b> .....	<b>35</b>
<b>13. Emergency Response</b> .....	<b>36</b>
<b>14. Emergency &amp; Hospital Information</b> .....	<b>39</b>
<b>15. Training and Medical Surveillance Requirements</b> .....	<b>40</b>
<b>16. Site-Specific Pre-Job Safety Orientation</b> .....	<b>41</b>
<b>Appendix A: Daily Tailgate Meeting Format</b> .....	<b>42</b>
<b>Appendix B: Air Monitoring Log</b> .....	<b>43</b>
<b>Appendix C: On-Site Safety Inspection</b> .....	<b>44</b>
<b>Appendix D: Executive Order B-33-15</b> .....	<b>45</b>
<b>Approvals</b> .....	<b>49</b>

## Figures and acronyms

### i. List of Figures

Figure 1. General Site Location Map page 5

Figure 2. Butte Fire Perimeter Map page 6

### ii. List of Acronyms

ARB	Air Resources Board
BMP	Best Management Practices
CalEPA	California Environmental Protection Agency
CalFire	The Department of Forestry and Fire Protection
CalRecycle	The Department of Resources Recycling and Recovery
CalTrans	California Department of Transportation
DROC	Debris Removal Operations Center
EPCRA	Emergency Planning and Community Right-to-Know
HazMat	Hazardous Materials
HHW	Household Hazardous Waste
ICS	Incident Command System
IMT	Incident Management Team
MPH	Miles per Hour
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PE	Professional Engineer
PM	Particulate Matter
REHS	Registered Environmental Health Specialist
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency



## 1. Introduction

This Site Safety and Health Plan (SSHP) has been developed for the activities performed by the Department of Resources Recycling and Recovery (CalRecycle) staff associated with removing debris caused by the Butte fire in Amador and Calaveras Counties.

The potential for widespread toxic exposures and threats both to public health and the environment exists in the aftermath of major disasters. The health effects of hazardous substances releases following earthquakes, floods, and wildfires are well-documented. Exposure to hazardous substances may lead to acute and chronic health effects, and may potentially cause long-term public health and environmental impacts. Uncontrolled hazardous materials and debris pose significant threats to public health through inhalation of dust particles and contamination of drinking water supplies. It is critical to remove hazardous materials and remove debris as quickly as possible to abate these impacts. State and local governments may need to enter private property to clear ash and fire debris or demolish and remove private structures deemed unsafe to eliminate immediate threats to life, public health, and safety.

On August 27, 2015, the Governor of California, Edmund G. Brown Jr., issued Executive Order B-33-15 (Order), to initiate cleanup of burnt debris and ash in Lake County as a result of wildfires (Appendix D). The Order stated that all State agencies with responsibility, regulatory authority, or expertise related to recovery efforts in connection with the Rocky and Jerusalem fires shall cooperate fully and act expeditiously in coordination with the California Environmental Protection Agency (CalEPA), to facilitate the removal of ash and debris from the fires and assist in the environmental restoration of Lake County. A provision in the Proclamation of State of Emergency of other recent fires in California, such as the Valley and Butte fires, placed these fires under this cleanup order as well.

The Order suspends statutes, rules, regulations and requirements to the extent they apply to the following activities: (a) removal, storage, transportation, and disposal of hazardous and non-hazardous solid waste and debris resulting from the fires that have burned in Amador and Calaveras Counties and that are subject to the jurisdiction of agencies within the California Environmental Protection Agency (CalEPA) and the California Natural Resources Agency; and (b) necessary restoration and rehabilitation of timberland, streams, rivers, and other waterways. Such statutes, rules, regulations, and requirements are hereby suspended only to the extent necessary for expediting the removal and cleanup of debris from the fire and for implementing any restoration plan by Amador and Calaveras Counties.

The Order allows state agencies to enter into contracts to arrange for the procurement of materials, goods, and services necessary to quickly remove dangerous debris and repair damaged resources. Because strict compliance with the provisions of the Government Code and the Public Contract Code applicable to state contracts would prevent, hinder, or delay these efforts, applicable provisions of those statutes, including

but not limited to travel, advertising and competitive bidding, were suspended to the extent necessary to address the effects of the fires.

Lastly, the Order states that State agencies shall work with local officials to design and implement a comprehensive structural debris removal plan that will treat the removal of structural debris as a single organized project.

The Department of Resources Recycling and Recovery (CalRecycle) was requested to assist with the design and implementation of the structural debris removal plan for the Butte Fire Incident in Amador and Calaveras Counties which is represented by a separate Butte Fire Incident Operations Plan created by CalRecycle. Information related to this project was obtained from the Office of the Governor and CalFire. This SSHP document will be updated as deemed necessary.

Two types of health and safety documents were prepared for this project. The first one is a community health and safety plan to address public safety. The second is this CalRecycle SSHP which CalRecycle staff shall follow to ensure worker safety. Both plans are based on known conditions at the time and may be updated as newer information is received.

This document will be considered a DRAFT until all supporting documents, which include, but are not limited to, the community health and safety plan, Operational Debris Management Plan (Operations Plan), site confirmation sampling plan, and any air monitoring plans that are completed by CalRecycle or their consultants.

## **2. Background**

The Amador and Calaveras County Solid Waste Local Enforcement Agencies (LEA's) are asking the Department of Resources Recycling and Recovery (CalRecycle) for assistance.

### **Purpose**

The purpose of the site work is to remove structural debris from the fire-damaged area. As of this writing, CalFire reports that the Butte Fire destroyed 475 residences and 343 outbuildings, damaged 45 structures, and burned 70,868 acres. The site work will involve the excavation, loading and transportation of site debris to a location of CalRecycle's choosing. Per Executive Order B-33-15 (Appendix D), all the ash and debris may be transported to a facility for disposal as long as the facility accepts the material.

Metal debris and concrete will be recycled to the extent feasible.

A Disaster Recovery Operation Center (DROC) has been established at:

### **Disaster Recovery Operations Center**

Calaveras County Government Center  
891 Mountain Ranch Road San Andreas, CA 95249  
Hours of operation until further notice:  
Monday - Friday 8 a.m. - 6:00 p.m.  
Saturday 9 a.m. - 4 p.m.  
Sunday 12:00 p.m. - 4 p.m.

### **3. Scope of Work**

CalRecycle's IMT has been asked by the Amador and Calaveras Counties to assist in the remediation of structures after the Butte Fire Incident.

#### **Purpose**

CalRecycle has been asked to assist in the clean-up of the fire devastation. Individual legal parcels of privately owned home sites were identified. The sites vary in composition. Some contain just foundations, ash and metal debris, while others are partially burned. The debris removal activities will cover structural debris and trees within the project area. The County Incident Commander and Operations Chief will make the final decision on what structures and material will be removed.

As a result, CalRecycle will assist the Counties by:

- Removing and disposing of solid waste and demolition debris, including waste tires;
- Segregating and sorting recyclable metal debris and delivering it to recycling facilities;
- Removing trees, chimneys and other site artifacts that pose a safety hazard;
- Hauling ash debris to an appropriate facility;
- Recycling concrete debris;
- Providing traffic control signs;
- Site contouring, posting signs, and erosion protection;
- Installing erosion control devices.

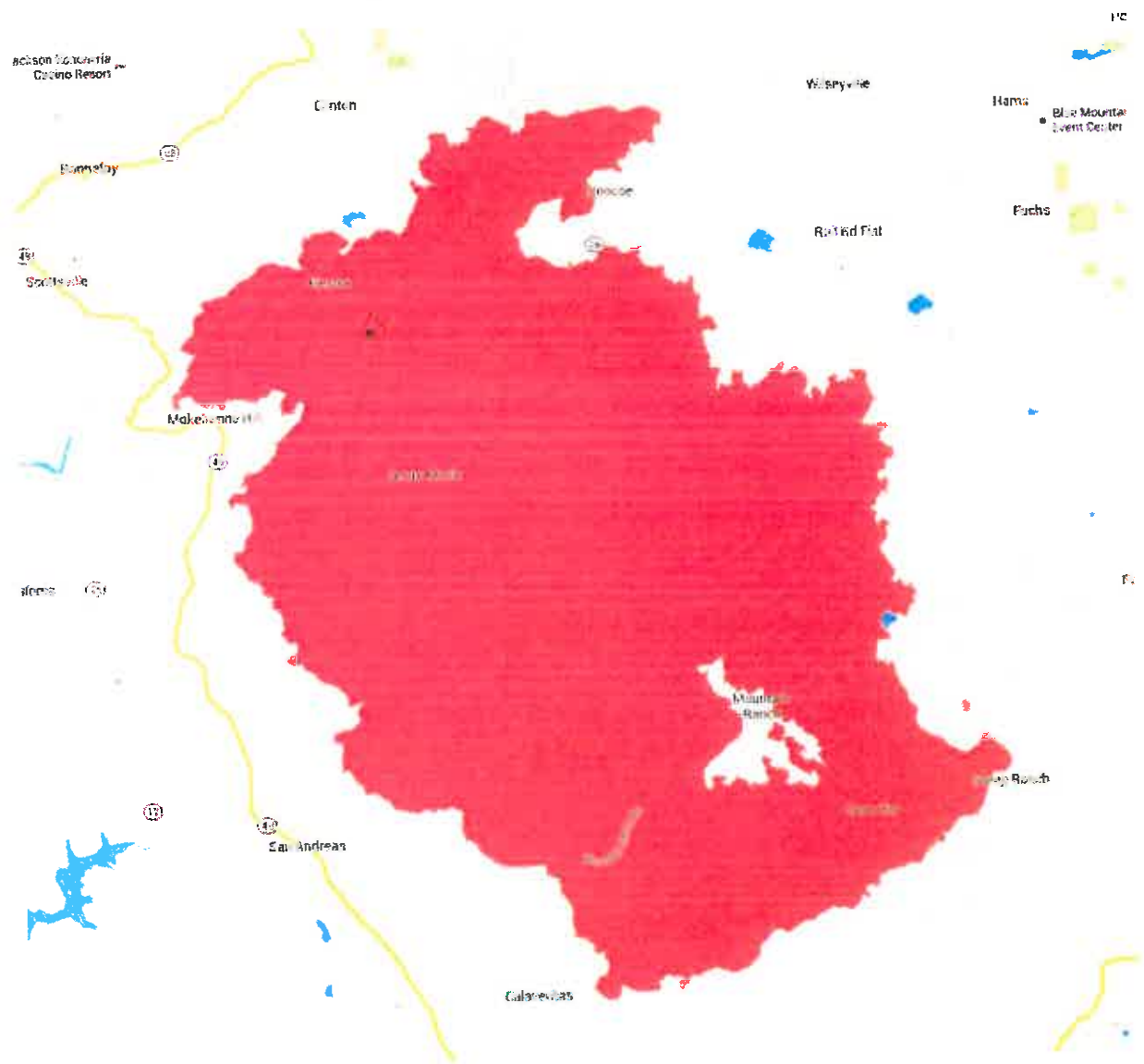
#### **Location**

The Butte Fire incident removal site is south of Highway 88 and east of Highway 49. Figure 1 provides the site location, and Figure 2 provides the perimeter of the affected area.

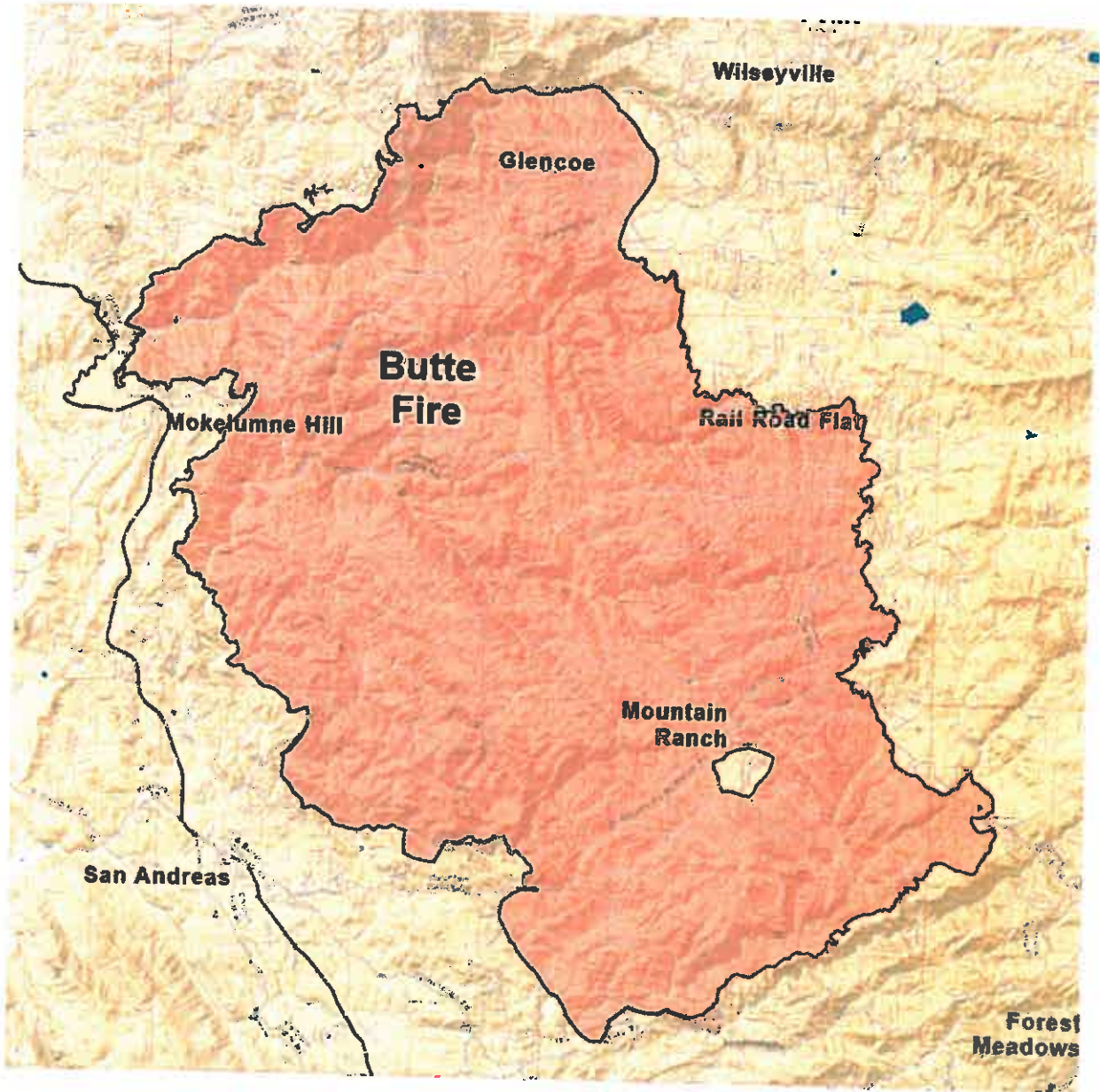
#### **Site Description and Background**

The Butte Fire Incident is primarily in northern Calaveras County, but it is also in southern Amador County. It is at latitude 38.32974 and longitude -120.70418. It is in Northern California, southeast of Sacramento.

Figure 1. General Site Location Map



*Figure 2 - The Butte Fire Perimeter Map*





#### 4. Key Personnel & Responsibilities

It is the policy of CalRecycle to provide safe and healthful working conditions for employees when performing debris removal after a state of emergency has been declared by the Governor. All CalRecycle personnel on-site during the remediation and clean-up project are to adhere to standard safety policies. Each employee is responsible for reporting any injuries, incidents, and safety infractions to the Site Safety and Health Officer (SSHO) so treatment can be obtained and/or corrective action taken.

##### KEY PROJECT PERSONNEL

Operations Chief:	Dean Peterson
Deputy Operations Chief:	Todd Thalhamer, PE Senior Engineer CalRecycle (916) 341-6356
Planning Section Chief	Natalie Lee California Air Resources Board (916) 835-7478
Project Safety & Health Officer:	Diane Kihara, CIH, CSP CalRecycle/Health & Safety Section (916) 341-6392
Site Safety & Health Officer:	Marc Arico, AIH CalRecycle/Health & Safety Section (916) 341-6394
	Kevin Amegin, Environmental Scientist CalRecycle/Health & Safety Section (916) 341-6345
	Laura Tembreull, Environmental Scientist CalRecycle/Health & Safety Section (916) 341-6217

##### Onsite Operations Chief/Onsite Operations Lead

The Operations Chief/Onsite Operations Lead is ultimately responsible for site safety and health, and will provide the materials and maintenance of equipment necessary to enhance and maintain safe site and work conditions. Responsibilities of the Operations Chief include project scheduling, cost updating, overall project direction and overseeing site safety. In addition, the Operations Chief is responsible for determining the extent

and level of input required for technical issues that arise during the project. The Operations Chief will serve as the primary point of contact. In the event that the Site Safety & Health Officer is not present at the site, the Operations Chief or their designee will assume all Safety and Health responsibility of the site.

### **Project Safety & Health Officer**

The Project Safety and Health Officer will be responsible for review and approval of CalRecycle's Site Safety and Health Plan (SSHP), and will assist and advise the Site Safety and Health Officer (SSHO). He/she has the authority to stop unsafe operations, recommend the removal of unqualified personnel from the work area, and approve changes to CalRecycle's SSHP.

The Project Safety and Health Officer will have responsibility for integrating all aspects of CalRecycle's SSHP into this debris removal project. His/her duties include advising the SSSH on all related Health and Safety aspects, reviewing any Site Specific Plans for compliance and completeness, and establishing and monitoring all related Health and Safety procedures through site safety audits.

The Project Safety and Health Officer will coordinate with the SSSH to ensure overall compliance with the SSHP. The SSSH will provide ongoing communication with Project Safety and Health Officer on issues related to site operations.

### **Site Safety and Health Officer (SSHO)**

The SSSH is responsible for overseeing work areas and identifying conditions that may pose a hazard to personnel or the public. Daily tailgate meetings shall be the manner in which the SSSH conveys any concerns or changes before work commences for the day. The SSSH is required to conduct regular safety inspections and implement and enforce the project safety program and procedures. The SSSH will work closely with the Operations Chief/Onsite Operations Lead to ensure that all site personnel review and comply with the terms of the community SSHP and/or CalRecycle's SSHP (if required). The SSSH performs duties such as verifying that the personnel have appropriate training, coordinating emergency medical care, conducting a daily site safety inspection (if required), and inspecting safety and health equipment. In addition, the SSSH is responsible for maintaining safety equipment, posting air monitoring results (if required), providing site orientation safety training for all personnel actively involved in site work (if required), and other site safety documentation.

The SSSH takes the following action(s) when appropriate:

- Orders the immediate shutdown of site activities in the case of a medical emergency, unsafe practice or if the SSSH deems it necessary.
- Ensures protective clothing and equipment are properly stored, used, and maintained.

- Ensures that the environmental and personnel monitoring operations are on-going and in accordance with technical specifications and required procedures.
- Restricts visitors from areas of potential exposure to harmful substances.

The SSHO will maintain the safety log, planned employee activities, and instrument monitoring and calibration records at the site. This log will include any daily safety meeting topics, training provided, site monitoring data, first aid administered, and all health and safety incidents. The log will also include a record of visits of all outside personnel. The SSHO will investigate all accidents and prepare an accident investigation report that will be forwarded to the Operations Chief/Onsite Operations Lead.

### **Subcontractor Management and Personnel**

Subcontractor management is responsible for the compliance of their personnel with the community health and safety plan. Since subcontractors are hired for their specific expertise, they must assume primary responsibility for the health and safety of their personnel. The subcontractor's Field Supervisor will also be responsible for performing regular safety inspections of their operations. The subcontractor shall participate in CalRecycle's safety tailgate meetings before commencing operations.

Subcontractors must also:

- Comply with all applicable Occupational Safety and Health Administration (OSHA) regulations as defined in California Code of Regulations, Title 8;
- Perform all work in accordance with this SSHP;
- Conduct weekly tailgate safety meetings and submit the minutes to the SSHO or the Operations Chief/Onsite Operations Lead.

## **5. Logs, Reports and Record Keeping**

The following logs, reports, and records will be developed and maintained for this site by the SSHO.

- Daily Safety Meetings
- Site Specific Health and Safety Plan
- Injury and Illness Prevention Program Records

## 6. Hazard Assessment

This section addresses the potential hazards identified with debris removal and clean-up of the site, which includes but is not limited to chemical, biological, physical, and environmental hazards. Hazard characterization and selection of worker protection methods for this site have been determined from previous clean up jobs as well as the site's history.

### HAZARD ASSESSMENT

To provide protection for personnel on-site, the following table summarizes the high risk hazards that have been identified. This determination is based on the contaminants identified at the site, the work tasks performed, and the environmental conditions of the site.

#### SUMMARY OF SITE HIGH RISK HAZARDS

HAZARD	TYPE OF EXPOSURE	CONTROL MEASURES
<b>Thermal stress</b>	<b>Physical</b>	<p><b><u>Heat Stress</u></b></p> <ul style="list-style-type: none"> <li>• Drink a quart of water per hour.</li> <li>• Take cooling rest breaks in the shade.</li> <li>• Avoid physical activity during the hottest part of the day if possible.</li> <li>• Wear cool and breathable clothing.</li> <li>• Apply sunscreen.</li> <li>• Wear a hat, sun visor, or some form of personal shade protection</li> </ul> <p><b><u>Cold Stress</u></b></p> <ul style="list-style-type: none"> <li>• Ensure clothing and boots have adequate insulation.</li> <li>• Avoid working alone.</li> <li>• Getting wet from rain or sweat can worsen heat loss in cold weather.</li> <li>• Wear rain protective clothing and rubber boots in rain and cold weather.</li> <li>• If wet, change into dry clothing when possible.</li> </ul>
<b>Vehicles/Heavy Equipment</b>	<b>Physical</b>	<ul style="list-style-type: none"> <li>• Limit personnel around heavy equipment especially when there are moving parts.</li> <li>• All workers shall observe all site safety rules.</li> <li>• Use cones and spotters to assist with safety around heavy equipment.</li> <li>• Communicate with machine operators frequently.</li> <li>• Listen for backup alarms.</li> <li>• All workers shall wear required PPE properly.</li> </ul> <p>Minimum PPE required:</p> <ul style="list-style-type: none"> <li>• High visibility safety vest</li> <li>• Hard hat</li> </ul>

		<ul style="list-style-type: none"> <li>• Safety Glasses</li> <li>• Hand protection</li> <li>• "Safety-Toe" boots</li> </ul>
<b>Unstable Structures</b>	<b>Physical</b>	<ul style="list-style-type: none"> <li>• Do not stand or work around standing structures or trees that have been damaged by fire.</li> <li>• Allow heavy equipment to safely knock down standing structures before working in an area.</li> <li>• Leave the area immediately if a structure shifts or unusual noises signal a possible collapse.</li> </ul> <p>Minimum PPE required:</p> <ul style="list-style-type: none"> <li>• Hardhat</li> <li>• Safety Glasses</li> <li>• Hand protection</li> <li>• Foot protection</li> </ul>
<b>Toxic metals</b>	<b>Chemical: Skin absorption/ Inhalation/ Ingestion</b>	<ul style="list-style-type: none"> <li>• Stay upwind.</li> <li>• Wet area to prevent high levels of dust.</li> <li>• Practice good housekeeping.</li> <li>• Maintain good hygiene, including washing hands before eating.</li> <li>• No smoking in the exclusion zone.</li> <li>• No eating or drinking in the exclusion zone.</li> <li>• All workers shall observe all site safety rules.</li> <li>• All workers shall wear required PPE properly.</li> </ul> <p>Minimum PPE required:</p> <ul style="list-style-type: none"> <li>▪ Safety Glasses</li> <li>▪ Hand protection</li> <li>▪ Foot protection</li> <li>▪ Tyvek coveralls</li> <li>▪ Respiratory protection (case by case basis)</li> </ul>
<b>Asbestos</b>	<b>Chemical: Inhalation</b>	<ul style="list-style-type: none"> <li>• Stay upwind.</li> <li>• Obey Unified Incident Commanders &amp; Project Safety &amp; Health Officer or their designee. All workers shall observe all site safety rules.</li> <li>• All workers shall wear required PPE properly.</li> </ul> <p>Minimum PPE required:</p> <ul style="list-style-type: none"> <li>▪ Safety Glasses</li> <li>▪ Hand protection</li> <li>▪ Foot protection</li> <li>▪ Tyvek coveralls</li> <li>▪ Respiratory protection (case by case basis)</li> </ul>
<b>Airborne Contaminants [Carbon Monoxide]</b>	<b>Chemical: Inhalation</b>	<ul style="list-style-type: none"> <li>• All workers shall observe all site safety rules.</li> <li>• Ensure all occupied spaces are properly ventilated.</li> <li>• Do not leave vehicles or equipment running near enclosed spaces or air intake of HVAC systems or breathing equipment.</li> </ul>



<b>Disease Vectors (Mosquitos, ticks, mice, etc)</b>	<b>Biological:</b> Injection/ Inhalation	<ul style="list-style-type: none"> <li>• Wear long-sleeved shirts and pants.</li> <li>• Do not stir up soil contaminated with rodent urine or droppings as the hanta virus may become airborne.</li> <li>• Wear insect repellent.</li> <li>• Check for ticks often</li> <li>• Do not touch live or dead animals.</li> <li>• Do not put gear down in possible rodent habitat.</li> <li>• Dampen area before clean-up activities.</li> <li>• Avoid activities at dawn and dusk.</li> </ul>
<b>Venomous snakes/ insects (Rattlesnakes, spiders, bees, wasps, etc)</b>	<b>Biological:</b> Injection	<ul style="list-style-type: none"> <li>• Wear long-sleeved shirts and pants.</li> <li>• Use gloves if moving debris.</li> <li>• Look before reaching</li> <li>• Inspect boots before putting on.</li> <li>• Wear insect repellent.</li> <li>• Do not disturb nests or hives.</li> </ul>
<b>Noise</b>	<b>Physical</b>	<ul style="list-style-type: none"> <li>• Increase distance from the noise source.</li> <li>• For staff susceptible to noise, minimize worker exposure by rotating staff.</li> <li>• Quiet areas away from the heavy equipment will be designated.</li> <li>• All workers shall wear required PPE properly.</li> </ul> <p>Minimum PPE required when noise exceeds 85 dBA:</p> <ul style="list-style-type: none"> <li>▪ Earplugs or ear muffs</li> </ul>

## CHEMICAL HAZARDS

The chemical hazards that may be present as airborne contaminants in the smoke, burn ash, soil, and soot at the site are discussed below. The information that follows provides a discussion of the hazards that may be present at the site. This SSHP includes the OSHA Permissible Exposure Limits (PELs), which are the regulatory exposure limits for workplace safety. The PELs are time-weighted average (TWA) exposure concentrations. When applicable, the Short-term Exposure Limits (STELs) and concentrations in the air that would be Immediately Dangerous to Life or Health (IDLH), are also provided. STELs are TWA 15-minute exposure concentrations that should not be exceeded at any time during a workday, even if the 8-hour exposure limit is not exceeded.

### A. Toxic Metals

Ash and debris from residential structures burned by fires can contain concentrated

amounts of heavy metals, such as antimony, arsenic, cadmium, copper, lead, mercury, and zinc. Exposure to toxic metals may be encountered from burn ash or soil. Burn ash sample analysis obtained from previous clean up investigations from other burn sites indicates that non-hazardous household or municipal waste contains various toxic metals. Test results indicate the predominant metals of concern in burn ash are not readily soluble in water; therefore, they are not readily leachable into ground water. However, burn ash can pose a health risk if it becomes airborne and is inhaled, ingested, or comes into direct contact with the skin. The toxic metals of primary concern include antimony, arsenic, barium, beryllium, cadmium, total chromium, cobalt, copper, lead, mercury, nickel, selenium, thallium, vanadium and zinc.

**Lead** can be found in indoor paint on walls, doors, and sills, as well as outdoor paint, if the house was built before 1978. Lead paint is also extensively used in outdoor paint as an anti-corrosive. Lead can be found in plumbing fixtures, car batteries, sports gear such as fish and dive tackle, old TV's and e-waste. Lead is non-biodegradable and should be presumed to be in the ash. Lead can affect nearly every system in the body.

**Chromium** is a naturally occurring element found in rocks, animals, plants, and soil. It can exist in several different forms. The most common forms are chromium (III) and chromium (VI). No taste or odor is associated with chromium compounds. Chromium (VI) and chromium (III) are used for chrome plating, dyes and pigments, leather tanning, and wood preserving. Chromium is also a common component of burn ash from the remnants of treated wood used in building construction. Ingesting high levels of chromium (VI) may result in anemia, damage to the stomach or intestines, or breathing problems. Sperm damage and damage to the male reproductive system have also been seen in laboratory animals exposed to chromium (VI). Skin contact with certain chromium (VI) compounds can cause skin ulcers. Some people are extremely sensitive to chromium (VI) or chromium (III). Allergic reactions consisting of severe redness and swelling of the skin have been noted.

**Copper** is a metal that occurs naturally in rocks, soil, water, and air. Copper has many uses including use as a wood and leather preservative and making different kinds of products like wire, plumbing pipes, sheet metal, brass and bronze pipes and faucets. Since copper can be found in many household items, there is a possibility of copper being present at high levels in burn ash from residences. Copper is an essential nutrient, meaning plants and animals must intake some copper from eating, drinking, and breathing. In excess, copper exposure can result in damage to the gastrointestinal system, the blood, and liver.

**Arsenic** is used as a pesticide and also as a wood preservative. It is a component of chromated copper arsenate, which used to make "pressure treated" wood preservative that used to be used in residential and industrial lumber. Now, wood treated with chromated copper arsenate is not used in the U.S. for residential buildings, but is still used in industrial building. Because of the older age of homes and mixture of structure types in the project area, there is a possibility of being exposed to high levels of arsenic from inhaling dust and burn ash. Exposure to high levels of arsenic can cause nausea and vomiting, decreased production of red and white blood cells, abnormal

heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet. Ingesting or breathing low levels of inorganic arsenic for a long time can cause a darkening of the skin and the appearance of small "corns" or "warts" on the palms, soles, and torso. Skin contact with inorganic arsenic may cause redness and swelling.

### Summary of Metals in Soil

Metals	OSHA Exposure <sup>1</sup> Limit	IDLH	Health Hazard	Route of Entry
Antimony	PEL: 0.5 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>	Irritation, lung	Ingestion/inhalation
Arsenic	PEL: 0.01 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	Cumulative systemic poison, regulated carcinogen	Inhalation/ingestion/absorption
Barium	PEL: 0.5 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>	Acute lung and gastrointestinal effects	Ingestion/inhalation/absorption
Beryllium	PEL: 0.0002 mg/m <sup>3</sup> Ceiling: 0.025 mg/m <sup>3</sup>	4 mg/m <sup>3</sup>	Cumulative lung damage, carcinogen	Ingestion/inhalation/absorption
Cadmium	PEL: 0.005 mg/m <sup>3</sup>	9 mg/m <sup>3</sup>	Cumulative kidney and lung damage, regulated carcinogen	Ingestion/inhalation
Chromium (III)	PEL: 0.5 mg/m <sup>3</sup>	25 mg/m <sup>3</sup>	Irritation	Ingestion/inhalation
Cobalt	PEL: 0.02 mg/m <sup>3</sup>	20 mg/m <sup>3</sup>	Cumulative lung changes, dermatitis	Ingestion/inhalation
Copper	PEL: 1 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>	Mild irritant	Ingestion/inhalation
Lead	PEL: 0.05 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>	Cumulative neurological effects, cumulative blood effects, kidney, reproductive	Inhalation/ingestion
Mercury	PEL: 0.025 mg/m <sup>3</sup> Ceiling: 0.1 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	Central nervous system, kidney, reproductive, "Skin"	Ingestion/inhalation/absorption
Molybdenum	PEL: 10 mg/m <sup>3</sup>	5000 mg/m <sup>3</sup>	Irritation	Ingestion/inhalation
Nickel	PEL: 0.5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	Cumulative lung damage, suspected carcinogen	Ingestion/inhalation
Selenium	PEL: 0.2 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	Irritation	Ingestion/inhalation
Silver	PEL: 0.01 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	Irritation	Ingestion/inhalation
Thallium	PEL: 0.1 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>	"Skin", cumulative systemic toxicity, CNS effects	Ingestion/inhalation/Absorption
Vanadium	PEL: 0.05 mg/m <sup>3</sup>	35 mg/m <sup>3</sup>	Irritation of mucous membranes, acute and chronic bronchial damage	Ingestion/inhalation

Zinc Oxide	PEL: 10 mg/m <sup>3</sup>	500 mg/m <sup>3</sup>	Mild irritant, lung	Ingestion/inhalation
------------	---------------------------	-----------------------	---------------------	----------------------

<sup>1</sup> Permissible exposure limits, California Code of Regulations, Title 8, General Industry Safety Orders, Airborne Contaminants, §5155

## **B. Asbestos**

Asbestos is a naturally occurring group of fibrous minerals that can only be identified under a microscope. There are several types of these flexible, fire-resistant fibers. In the past, asbestos was added to a variety of products to strengthen them and provide heat insulation and fire resistance and is still in use today. More than 3,000 products in use today contain asbestos. Asbestos can be found in linoleum masking material, pipe and building insulation, some concretes, and in stucco or "popcorn" ceiling material. In most products, asbestos is combined with a binding material so that it is not readily released into the air. However, asbestos fibers may be present in burn ash because asbestos does not burn or degrade, unlike the binding material. **All CalRecycle staff should be aware that asbestos containing waste (ACW) may be present and that asbestos is a human carcinogen with no known risk-free levels of exposure.**

If asbestos fibers should become airborne and are inhaled, they can remain in the lungs for a long period of time, producing risk for severe health problems that do not appear until many years later. Asbestos fibers can have serious effects on health if inhaled. Increased exposure to asbestos will increase the risk of developing an asbestos-related disease, such as asbestosis and mesothelioma. The amount of time between exposure to asbestos and the first signs of disease can be as long as 30 years. It is known that smokers exposed to asbestos have a much greater chance of developing lung cancer than just from smoking alone.

Any level of exposure to asbestos is associated with an increased risk of cancer. The regulatory occupational exposure limit or permissible exposure limit (PEL) of airborne concentration to asbestos is 0.1 fiber/cc (cubic centimeter) of air. OSHA has classified asbestos as a regulated carcinogen.

As a precaution, each work site will be treated as if it contains asbestos. Work practices that minimize the disturbance of asbestos containing materials, such as wet methods, will be used to control dust emissions. During debris removal, if asbestos containing waste (ACW) are encountered and must be disturbed, an initial exposure assessment consistent with the requirements of Title 8, CCR, Section 1529 shall be performed.

Heavy equipment that is used to demolish structures or remove debris can rupture building materials that may contain asbestos and cause it to be released into the air. Therefore, wetting the debris and structures before work begins and during work is crucial because it reduces the potential for air migration of asbestos.

If asbestos containing materials are encountered, a Cal/OSHA registered Asbestos Removal Contractor will be responsible for overseeing the safe removal of ACW identified on-site by the contractor for partially destroyed structures. CalRecycle staff

are not responsible for ACW removal. Engineering control measures such as wet methods shall be implemented to ensure that no asbestos fibers will be released during such an operation. If the engineering control is not feasible, or does not provide adequate protection, the SSHO must require respiratory protection for CalRecycle workers. The recommended respirator is a full face APR with HEPA filters. The SSHO shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter (0.1 f/cc) of air as an eight (8) hour time weighted average (TWA). The SSHO shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes.

### **C. Nuisance Dusts**

Nuisance dusts refer to airborne dust particles without specific occupational exposure standards. Dust from this site may contain various types of structural debris such as concrete, wood, glass, metal, plastic, dirt and ash. High levels of nuisance particulates in the air may reduce visibility and can get into the eyes, ears and nose. The Cal/OSHA designated PEL is a TWA of 10 mg/m<sup>3</sup>. Every effort should be made to control dust with wet methods and to limit exposure to airborne dust by staying upwind and wearing dust masks.

Airborne contaminants in dust, ash and soot may irritate airways and otherwise affect breathing.

- Stay upwind of dust generating activities.
- Use wet method to minimize dust in the air.
- When exposure to dust cannot be controlled or avoided, use a well-fitted, NIOSH-certified air-purifying respirator (such as an N-95 or more protective respirator) to reduce the effects of dust.
- Use a high efficiency particulate air (HEPA)-type vacuum when cleaning dust. A typical household vacuum can put dust back into the air.

### **D. Other Potential and Known Chemical Hazards**

**Carbon Monoxide (CO)** is an odorless, colorless gas and a byproduct of combustion. CO is produced any time you burn fuel in cars or trucks, small engines, stoves, lanterns, grills, fireplaces, gas ranges, or furnaces. CO can build up indoors, in trenches, or in partially enclosed outdoor spaces. Too much CO in surrounding air can cause acute poisoning. The most common symptoms of CO poisoning are headache, dizziness, weakness, upset stomach, vomiting, chest pain, and confusion. Continued exposure to CO can result in fainting and ultimately death. The Cal/OSHA designated PEL for CO is a time-weighted average of 25 ppm. It is important to keep any generators in a well ventilated area and to ensure the exhaust is not collecting in an enclosed space or being pulled into a nearby HVAC system. No cars or heavy equipment should be left running in any enclosed space. If someone is experiencing symptoms of carbon

monoxide poisoning, immediately move them to fresh air and take them to the hospital if condition does not improve quickly.

**Airborne contaminants in smoke** are made up of a complex mixture of gases and fine particles produced when wood and other organic matter burn. The biggest health threat from smoke comes from fine particles that can irritate your eyes and respiratory system. In healthy adults, this can cause problems such as burning eyes, runny nose, and bronchitis. Those individuals with chronic heart and lung diseases are more susceptible to ill effects from smoke and particulates. Fine particles can aggravate chronic heart and lung diseases and even are linked to premature death in people with these conditions. Watching air quality reports and limiting time and exertion outdoors when too much smoke is in the air is the most effective control measure.

**Gasoline** is a mixture of petroleum-derived chemicals. Benzene, toluene, xylene and ethyl benzene are the airborne contaminants of most concern. Health hazards associated with gasoline exposure are mild irritation and effects on the central nervous system. It is a fire and explosion hazard. The Cal/OSHA-designated PEL for benzene is a TWA of 1 ppm; for toluene, the PEL is 10 ppm, and for xylene the PEL is 100 ppm.

**Diesel** is a fuel oil and a refined petroleum solvent that is mixture of paraffins and aromatics. Health hazards associated with diesel exposure are mild irritation to the eyes, skin, and throat. It is a fire hazard.

### **Household Hazardous Waste (HHW)**

Household hazardous wastes such as flammable gas tanks, paints, petroleum lubricants/fuels, pesticides may be on-site. If household hazardous materials are discovered by the contractors, the material will be segregated by the CalRecycle staff and/or the contractors to a temporary on-site storage. As necessary, the County will collect and transport HHW to the County facility at no charge to CalRecycle and/or contractors.

## **PHYSICAL HAZARDS**

### **A. Thermal Stress**

#### **1. Heat Stress**

With the possible combination of ambient factors such as high air temperature, low air movement, high radiant heat, and protective clothing, the potential for heat stress is a major concern. All on-site personnel will be made familiar with the symptoms of heat stress and the conditions during which they may occur. Heat stress symptoms may include elevated heart rate, nausea, headache, lightheadedness, and lack of coordination or decreased job performance or slurred speech. The following table summarizes the causes and symptoms of the varying degrees of heat illness.



Heat Stress Condition	Causes & Symptoms
Heat rash	Also known as prickly heat, skin remains wet as sweat does not evaporate.
Heat cramps	Painful muscle spasms that are caused by lack of salt in the body. Usually a result from sweating heavily and drinking large amounts of water without replacing the body's salt loss.
Heat exhaustion	Continuous loss of fluids and salt from sweating can cause heat exhaustion. Symptoms include heavy sweating, cool and moist skin, and a weak pulse. Possible fainting, weakness, dizziness, nausea, diarrhea, blurred vision and a normal or slightly high body temperature. Advanced stages can cause vomiting or loss of consciousness.
Heat stroke	Most serious heat illness – when sweating no longer helps the body regulate its internal temperature. Skin is hot, may or may not be dry. Often red or spotted. Individual is slightly confused & disoriented. Delirium, convulsions, or even unconsciousness may occur. Body temperature may be 105 degrees Fahrenheit or higher.

The use of protective clothing and equipment can increase the effects of heat stress conditions on site workers. At 75 degrees Fahrenheit ambient temperature, the SSHO will become keenly aware of the effects of heat stress on project personnel, and will alert the crew to become aware of any symptoms and encourage the crew to drink water frequently. Suitably cool water will be provided such that each crew member will have enough water to drink at least one quart per hour. At 80 degrees, shade will be provided. At 95 degrees, high heat procedures shall be implemented. These procedures will include close supervision of employees; active observation of employees and effective communication with employees. The SSHO shall be responsible for performing all heat related monitoring for his employees and document ambient temperatures throughout the day. The symptoms of heat-related disorders and preventive measures will be discussed during a safety "tailgate" meeting. In the meeting, the SSHO will review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary.

In high heat conditions, the SSHO shall monitor for heat stress. Site personnel shall follow the appropriate work practices and monitor their potential heat stress condition. To reduce the potential for heat stress a shaded area(s) will be available for employees outside of the exclusion zone, where employees may cool down after removing personal protective clothing. Shade shall be provided if the temperature exceeds 80 degrees. The worker may sit in the shade, rest, and drink water for no less than 5 minutes at a time when they feel the need to do so to protect them from overheating. All workers will be encouraged to take rest breaks as often as is necessary in the shaded area and replenish fluids. At a minimum, workers will break every 2 hours for 10 to 15

minute rest periods. The frequency of breaks may need to be increased upon worker recommendation to the SSHO. If personnel should begin to feel the onset of any heat stress signs or symptoms, they will immediately cease work, proceed to a shaded area and rehydrate. Also, if resting pulse rates exceed 110 beats after a 3-minute waiting period, then additional breaks will be taken. Workers are encouraged to increase water consumption to at least one quart per hour, or 2 gallons per day. Workers will avoid fluids that contain caffeine during the hottest part of the day. Workers are encouraged to drink small volumes of cool water about every 20 minutes for rehydration.

Workers should be paired using the buddy system to watch co-workers for signs and symptoms of heat stress. At no time should employees be left alone or unattended during conditions of high heat exposure.

## 2. Cold Stress

Cold temperatures can also cause stress on the body. With the possible combination of ambient factors such as low air temperature, high winds, high sweat production, and the possibility of rain, the potential for cold stress is a concern. All on-site personnel will be made familiar with the symptoms of cold stress and the conditions during which they may occur.

Cold Stress Condition	Causes & Symptoms
<b>Hypothermia</b>	<p>Occurs when body heat is lost faster than it can be replaced and the normal body temperature (98.6°F) drops to less than 95°F. Hypothermia is most likely at very cold temperatures, but it can occur even at cool temperatures (above 40°F), if a person becomes chilled from rain, sweat, or submersion in cold water.</p> <p>Mild symptoms:</p> <ul style="list-style-type: none"> <li>• Shivering, teeth chattering, lips begin to turn blue</li> </ul> <p>Moderate to Severe symptoms:</p> <ul style="list-style-type: none"> <li>• As the body temperature continues to fall, symptoms will worsen and shivering will stop.</li> <li>• The worker may lose coordination and fumble with items in the hand, become confused and disoriented</li> <li>• He or she may be unable to walk or stand, pupils become dilated, pulse and breathing become slowed, and loss of consciousness can occur. A person could die if help is not received immediately.</li> </ul>
<b>Frostbite</b>	<p>An injury to the body that is caused by freezing of the skin and underlying tissues. The lower the temperature, the more quickly frostbite will occur. Frostbite typically affects the extremities,</p>

	<p>particularly the feet and hands. Amputation may be required in severe cases.</p> <p>Symptoms</p> <ul style="list-style-type: none"> <li>• Reddened skin develops gray/white patches.</li> <li>• Numbness in the affected part.</li> <li>• Feels firm or hard.</li> <li>• Blisters may occur in the affected part, in severe cases</li> </ul>
<p><b>Trench Foot</b></p>	<p>Caused by prolonged exposure to wet and cold temperatures. It can occur at temperatures as high as 60°F if the feet are constantly wet. Non-freezing injury occurs because wet feet lose heat 25-times faster than dry feet. To prevent heat loss, the body constricts the blood vessels to shut down circulation in the feet. The skin tissue begins to die because of a lack of oxygen and nutrients and due to the buildup of toxic products.</p> <p>Symptoms</p> <ul style="list-style-type: none"> <li>• Redness of the skin, swelling, numbness, blisters</li> </ul>

To prevent cold stress, workers should wear warm, layered clothing that protects them from cold, wet and windy conditions; take frequent breaks in warm, dry locations; and avoid exhaustion and fatigue, which depletes energy needed to keep warm. Drinking water and warm beverages, avoiding caffeine and eating high-calorie foods like pasta also can help prevent cold stress.

## **B. Physical Safety Hazards**

There are numerous physical hazards associated with this project which, if not identified and addressed, could present operational problems as well as accidents and personal injury to the work force. In order to minimize physical hazards, standard safety protocols have been developed and will be followed at all times. The SSHO will observe the general work practices of all personnel and enforce safe procedures to minimize physical hazards.

### **1. Tripping, Slipping, and Falling Hazards**

CalRecycle personnel will be reminded daily to maintain sure footing on all surfaces. In order to minimize tripping hazards caused by debris, job supplies, and equipment, material will be removed daily from the work areas and stockpiled in their respective storage areas. Extra precaution should be made around unstable chimneys and unstable trees. This "housekeeping" effort will be enforced by the SSHO throughout the day.

## 2. Head, Back, and Musculoskeletal Injuries

While performing site activities, CalRecycle staff may encounter situations where head trauma could occur. To prevent injuries that may be caused by overhead obstructions, impact, and penetration of falling objects, hard hats shall be worn. Cal Recycle staff should not stand work or stand near any structures or trees that have been damaged by the fire, as those structures may be unstable and can collapse.

Personnel are to use proper lifting techniques whenever they lift heavy objects and seek assistance if the object is too heavy to lift safely.

## 3. Heavy Equipment and Traffic

The use of heavy equipment for debris removal presents a potential safety hazard for personnel. **ALL SITE PERSONNEL WILL WEAR VISIBLE PROTECTIVE CLOTHING.** Only qualified personnel will operate heavy equipment. All other on-site personnel shall remain a safe distance from heavy equipment.

Personnel needing to approach heavy equipment while operating will observe the following protocols:

- a. Make eye contact with the operator (and spotter),
- b. Signal the operator to cease heavy equipment activity,
- c. Approach the equipment and inform the operator of intentions.

All construction equipment working within the residential zones shall maintain a speed of **15 mph or less.**

All equipment must be in good working condition when in use at the Site. Equipment that does not appear to be in good repair or appears to be unsafe will not be put into service until all necessary repairs are made.

## 4. Fatigue

Stress, long hours, and fatigue may increase the risk of injury and illness. Fatigue can increase the incidence of mistakes and oversight of safety precautions. To avoid excess fatigue, personnel should:

- Pace work throughout the day to avoid physical exhaustion.
- Rest and take breaks **BEFORE** exhaustion builds up.
- Get an adequate amount of sleep each night.
- Stay well hydrated and nourished.

## C. Noise Hazards

CalRecycle personnel exposure to high noise levels may come from the presence of

heavy equipment used during debris removal. Employees may not be exposed to noise greater than the levels permitted by Cal/OSHA (90 dBA TWA for an 8 hour day). If levels are higher than this, engineering, administrative, or work practice controls are required. When the noise levels cannot be controlled through these methods, hearing protection will be worn. The SSHO will monitor employee noise exposure with a sound level meter and take appropriate action. Hearing protection will be provided. Hearing protection will be required if employees are exposed above 85 dBA for 8 hours. Equipment used for cleanup activities can generate noise well above 85 dBA. Noise exposure will be reduced significantly the farther a person is away from the source. The goal will be to limit exposure below 85 dBA.

**D. Radiological Hazards**

While unlikely to be an issue, a radiological survey shall be performed around the impacted structures, as needed. The survey equipment should be designed for general radiological surveying such as a Ludlum 2241 or equivalent.

The action level for this project is set at two times background. Should a level of 2x background be detected, the surveyor will isolate (i.e., cordon off) the area and notify the Operations Chief and/or the affected county. The elevated reading(s) will be traced until the source can be determined to be from natural sources such as brick or geological formations. Should the reading not be from natural sources, the Operations Chief will determine the location and rate and develop an action plan to secure the source if the reading exceeds 1mR/hr at one foot. Some examples of radiation sources that are sometimes found in homes are radium painted dials, compasses, and watches.

**BIOLOGICAL HAZARDS**

The following table summarizes some potential biological hazards:

Hazard	Avoidance
<p><b>Disease Vectors:</b></p> <ul style="list-style-type: none"> <li>▪ Mosquitos</li> <li>▪ Ticks</li> <li>▪ Rodents</li> </ul>	<p>Mosquitos, ticks, and rodents may transmit diseases, such as West Nile virus, Rocky Mountain spotted fever, Lyme disease, and hanta virus. To reduce risk of infection by insects, wear long-sleeved shirts and pants, check for ticks often, wear insect repellent, and reduce field activities at dawn and dusk. To reduce risk of infection by rodents or other animals, do not handle live or dead animals and do not stir up soil contaminated with rodent urine or droppings as the hanta virus may become airborne. Dust masks should be worn when opening or cleaning cabins, barns or outbuildings.</p>

<p><b>Animal and insect bites or stings:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Bees</b></li> <li>▪ <b>Wasps</b></li> <li>▪ <b>Snakes</b></li> <li>▪ <b>Spiders</b></li> <li>▪ <b>Dogs</b></li> <li>▪ <b>Rodents</b></li> </ul>	<p>Animal and insect bites and stings can cause localized swelling, itching, and minor pain that can be handled by first aid treatment. In sensitive individuals, however, effects can be more serious such as anaphylactic shock that can lead to severe reactions in the circulatory, respiratory, and central nervous system, and in some cases, even death. Do not attempt to capture any wild or semi-wild animals such as cats, rats or snakes due to the possibility of a bite or parasitic infestation. Use gloves and wear protective boots when disturbing debris piles. Leave area if a rattling is heard. Stray or displaced dogs may be present at the site. Contact the Sheriff to remove.</p>
<ul style="list-style-type: none"> <li>▪ <b>Poison Oak</b></li> </ul>	<p>Three leaflet plant whose sap and crushed leaves contain a chemical, which if absorbed into the skin cause an allergic reaction. Recognize and avoid the plant. If exposed, wash the affected area as quickly as possible with soap and cold water.</p>

**SAFE WORK PRACTICES**

Debris remediation activities shall stop immediately if a container, metal drum, or object that may be potentially dangerous is struck. Operations will not resume until the Site Health and Safety Officer determines the safety of the operation. If containers/drums are found to be rusted, in poor decrepit condition or bulging, they should not be touched or moved. Any container/drum suspected of containing hazardous materials/waste shall be viewed as dangerous and may be flammable.

**DUST CONTROL**

The contractors shall provide water or dust palliative, or both, to prevent dust nuisance at each site. Dust resulting from contractor's performance of the work shall be controlled at all times during this project. The contractor will provide fire grade firefighting nozzles with shut off valves for dust control. Each removal crew will be provided at least one fire nozzle. These types of fire nozzles in past projects have proven successful in applying the appropriate amount of water needed to control dust.

## **7. Safety Inspections**

The CalRecycle SSHO and/or his or her designee will perform their own daily safety inspections. A report including results of the inspection and any corrective actions taken will be filed in the project files, with a copy to the CalRecycle Operations Chief/Onsite Operations Lead. Identified safety and occupational health deficiencies and corrective measures shall be recorded.



## 8. Standard Field Activity Procedures

To ensure the safety of personnel in the work area, CalRecycle staff shall practice the following debris remediation activities:

- Stay upwind and a safe distance away from the source of any chemical hazard whenever possible.
- Do not stand on the debris pile.
- Do not touch or attempt to collect samples of soil, waste material or debris of any kind without appropriate personal protective equipment.
- Avoid all heavy equipment or machinery operations that can pose a safety hazard. If heavy equipment or other vehicles are present, stay out of traffic routes. If staff needs to remain in traffic areas, advise equipment operators of your presence. Make sure they see you and stop the equipment before you approach them.
- When encountering asbestos containing waste (ACW) appropriate control measures, such as wetting down the area, must be used to prevent airborne dust.
- Never put notebooks or other equipment down in waste areas.
- Do NOT barbeque and/or cook at the job site.
- Scavenging of waste is strictly FORBIDDEN.
- Portable fire extinguisher shall be available at the job site at all times.
- Avoid dust clouds and dusty operations. Stand upwind and out of the dust plume area. Leave dusty areas immediately and reenter only after dust has settled or after dust control is in effect. Avoid being splashed by the water truck or entering freshly sprayed areas.
- When dusty operations are anticipated, control measures such as a water truck, shall be used.
- Avoid loud or sustained high noise levels. If you cannot hear the person next to you or the sound is loud enough to be uncomfortable, leave the area immediately and do not reenter without adequate hearing protection.
- Do not enter enclosed areas. Such enclosed areas include, sumps, drains, ground water wells, other sub-grade conduits, and any low areas where gas may collect.
- Avoid walking in the waste and near operating equipment.

- Always be alert and watch for sharp objects such as medical syringes, nails and broken glass, which may penetrate your boots or your hands, should you fall.
- Examine your boots and clothing after walking through waste to determine if you have been contaminated. Not all contamination is visible! Make sure all PPE is disposed of properly. If it is hazardous, everything should go in hot trash (including PPE). If it is not hazardous, throw it into the municipal waste.
- Stay clear of steep slopes. Slopes greater than 10% should be avoided altogether.
- Driving with your boots on can be hazardous and may cause you to lose control of the vehicle.
- When parking on a hill or incline, set the parking brake.
- Avoid contaminating the interior of vehicles. Whenever possible, do not enter the vehicle with contaminated boots or clothing.
- Remember to use all personal protective equipment according to the manufacturer's instructions.
- Observe site conditions and wind direction. Note traffic patterns, work areas, and unusual activities.
- Keep vehicles away and upwind of all hazards including traffic, dust, active areas, landfill gas collection, venting or flame-off areas, etc.
- Entry into any excavation, trench, or confined space is prohibited. Watch for openings in the ground, and avoid stepping into the spoils from excavations or trenches.

### Personal Hygiene

- Avoid hand or body contact with waste materials or any dirty or contaminated surfaces.
- Application of makeup is prohibited at the work area.
- Avoid touching eyes, nose or mouth with or without gloved hands. Hands and face should be washed with a disinfectant soap, immediately after leaving the work site. Always wash up thoroughly before leaving the site or as soon as possible thereafter.
- Be sure to containerize all contaminated materials in a plastic bag until you can properly dispose of them.

- Disposable gloves may not be reused.
- Always carry boots in plastic bags separately from other personal clothing.
- Water from sealed containers or coolers may be consumed if done carefully and away from contaminant sources. If possible, remove all personal protection equipment before entering any office to get drinking water.
- Eating and smoking are prohibited while on a solid waste facility, except in designated areas.
- Wash hands before eating and before and after using the restroom. Partial or complete personal decontamination may be required to prevent transfer of contaminants to yourself or facilities.
- Always double check your gear and equipment to insure that no uncontrolled contaminants leave the site with you.
- Whenever possible, dispose of all collected waste materials you may have generated, contaminated or not. Salvaging of ancient wastes is prohibited. This will reduce the likelihood of spreading contamination into shared vehicles or to your office or home.

### Personal Safety

- Due to the possible presence of illegal drug use, operations staff shall exercise caution while traveling on site and particularly when entering an unfamiliar property.

## **9. Work and Support Areas**

To prevent migration of contamination caused by tracking by personnel or their equipment, work areas and personal protective equipment will be clearly specified prior to beginning operations. CalRecycle staff shall obey all designated work areas or zones as suggested by the NIOSH/OSHA/USCG/EPA's document titled, "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities." Daily safety briefings will provide an overview of that day's work.

Upon entrance into the site, CalRecycle Team members will control access to site work zones. Each work area will be designated into one of three zones: exclusion or "hot" zone, a contamination reduction zone (CRZ), and a support zone. CalRecycle staff will be working in all three zones during the duration of this debris removal operation.

### **EXCLUSION ZONE**

The exclusion zone is considered the zone of contamination and is the area where inhalation, oral contact, or dermal contact with contaminants must be avoided.

### **CONTAMINATION-REDUCTION ZONE**

The contamination-reduction zone (CRZ) or "transition zone" will be established between the exclusion zone and support zone. In this area, personnel will perform decontamination of themselves and equipment to remove any contamination.

### **SUPPORT ZONE**

The support zone will consist of a clearly marked area where the support equipment and personnel not donned in the appropriate level of personal protective equipment will be located. Smoking, drinking, and eating will be allowed only in designated areas in the support zone. The location of support zone may be changed in the event of a sustained change in the prevailing wind direction or other unpredictable events.

### **ACCESS CONTROLS**

The Operations Chief/Onsite Operations Lead or their designee shall establish the physical boundaries of each zone daily and shall instruct all workers and visitors on the limits of the restricted areas. No one shall be allowed to enter the restricted area without the required personal protective equipment for that area. The SSHO shall ensure compliance with all restricted area entry and exit procedures.

The Operations Chief/Onsite Operations Lead or their designee shall also designate a decontamination point for personnel to exit from the contaminated area and enter into

the clean area where personnel may rest and drink.

### **VISITOR ACCESS**

Visitors should check in immediately upon arrival with the Operations Chief/Onsite Operations Lead or their designee. Only authorized visitors will be allowed access to the contaminated areas. All CalRecycle staff will be required to provide and wear the appropriate level of personal protective equipment. Other site visitors will not be admitted to the exclusion and contamination reduction zones. The project area has limited access to residents living within and around the area so vehicular traffic may increase during the clean-up activities.

Failure to comply with this site entry procedure will result in expulsion from the site. A visitors log will be kept by the Operations Chief/Onsite Operations Lead or their designee.

## 10. Personal Protective Equipment

All personnel entering the exclusion or contamination reduction zone must wear the appropriate level of protection as designated by this SSHP. It has been determined that personal protective equipment will be used by personnel when performing activities related to debris removal operations at this site. When personnel can control their exposure through engineering or administrative controls, they shall do so.

The level of protection required shall be upgraded or downgraded based on the results of personal air monitoring, action levels from direct reading instruments or a change in site conditions. Changes in protection levels must be determined by the SSHO or their designee and approved by the Operations Chief/Onsite Operations Lead and Project Health and Safety Officer.

### LEVELS OF PROTECTION

Personnel working in the hot zone will use the following levels of protection:

- Level C: Used when criteria for using air-purifying respirators are met and a lesser level of skin protection is required.
- Level D: Used for all personnel in the exclusion zone.

### General Considerations

The selection of a respirator for any given situation shall require consideration of the following factors:

- The nature of the hazard;
- The characteristics of the hazardous operation or process;
- The location of the hazardous area with respect to a safe area having respirable air;
- The period of time for which respiratory protection may be provided;
- The activity of the workers in the hazardous area;
- The physical characteristics, functional capabilities and limitations of various types of respirators; and/or,
- The respirator protection factors and respirator fit.

## LEVELS OF PROTECTION WORN IN THE EXCLUSION ZONE

### **Level C**

- **Respiratory Protection:** During each day's tailgate meeting, the Site Safety and Health Officer will determine site conditions and whether the type of respirator worn is different from the SSHP's recommendation.
  - A full face piece air purifying respirator/combination cartridge for protection against chemical/organic vapors, pesticides/fertilizers with HEPA filter shall be donned when working in the exclusion zone; a half-face air purifying respirator/combination cartridge shall be donned only if the SSHO deems it safe while in the exclusion zone.
- **Protective Clothing:** Reflective safety vest;
- **Head:** Hard hat;
- **Hand:** Appropriate gloves if necessary;
- **Boots:** Safety toe shoe/boot;
- **Eye:** Safety glasses;
- **Hearing:** Earplugs if necessary.

### **Level D**

- **Protective Clothing:** Visible protective clothing;
- **Head:** Hard hat;
- **Hand:** Not required;
- **Foot:** Safety toe shoes/boot;
- **Hearing:** Earplugs if necessary;
- **Eye:** Safety glasses

## **SUPPORT ZONE**

Personnel working in the support zone will use the following personal protective equipment:

Foot: Safety Toe shoe/boot  
Head: Not required



## RESPIRATORY PROTECTIVE EQUIPMENT

All CalRecycle personnel using respiratory protective equipment shall follow CalRecycle policy and procedures. The following issues covered below should be followed when using respiratory protection for this site.

### **Cartridge Changes**

All cartridges will be changed a minimum of once daily. However, water saturation of the HEPA filter or dusty conditions may necessitate more frequent changes. Changes will occur when personnel begin to experience increased inhalation resistance, or breakthrough of a chemical with warning properties.

### **Inspection and Cleaning**

Respirators will be checked periodically by the SSHO and inspected before each use by the wearer. All respirators and associated equipment will be decontaminated and hygienically cleaned after use.

### **Facial Hair**

No personnel who have facial hair which interferes with the respirator's sealing surface, will be permitted to wear a respirator or to perform functions which require a respirator.

### **Corrective Lenses**

Normal eyeglasses may be worn under full-face respirators. However, during annual fit testing, health and safety staff will ensure that the eye glasses do not interfere with the seal of the face-piece to the face of the user. Contact lenses can be worn with any type of respirator, but their use is not recommended in dusty atmospheres while wearing a half-mask face-piece. For workers requiring corrective lenses, special spectacles designed for use with respirators will be used.

### **Medical Certification**

Only workers who have been certified by a physician, as being physically capable of respirator usage will be issued a respirator.

### **Voluntary Respirator Use**

The use of disposable dust masks provided by CalRecycle falls under the "voluntary respirator use" requirements of 8 CCR 5144 (c)(2) (see Section 10.0). CalRecycle will provide all respirator users with information related to voluntary respirator use as needed.

**Note:** The Health and Safety Officer encourages all field staff to use disposable dust masks voluntarily for level D activities.

## **11. Decontamination Procedures**

All personnel and equipment must be free from contamination when they leave the work site.

### **PERSONNEL DECONTAMINATION**

Decontamination of personnel shall be accomplished to ensure that any material which personnel may have contacted in the exclusion zone is removed in the contamination-reduction zone. If personal decontamination is required, CalRecycle staff shall consult with the Operations Chief/Onsite Operations Lead, SSHO or their designee.

### **EQUIPMENT DECONTAMINATION**

Any equipment and vehicles that come in contact during the debris removal will undergo decontamination. Each party will be responsible for final decontamination of their equipment.

### **WASTE HANDLING**

Contaminated clothing will be bagged and disposed of at the end of each day.

## 12. Site Monitoring

### AIR MONITORING

Based on prior debris removal operations, air monitoring may be performed to evaluate air emissions at the site. The purpose of air monitoring is to identify and quantify airborne contaminants to assist with worker protection. If it is determined necessary, air monitoring will be performed onsite with the use of direct reading instrument(s) or by integrated sampling. CalRecycle's SSHO or their designee shall have the ability to perform air monitoring instrumentation independently from the contractor assigned to the project.

The SSHO or their designee shall log where site monitoring is conducted if needed. All CalRecycle instruments used for air monitoring during this project shall be calibrated prior to use with the calibration log and sampling results properly maintained. Air flow measurements shall be corrected for high altitude. An air monitoring log can be found in Appendix B.

Monitoring of the air in the community and work sites for asbestos, heavy metals, and dust will be monitored by a certified industrial hygienist for the duration of the project until such time the industrial hygienist determines that air monitoring may cease. The contractor shall employ a third party certified industrial hygienist to perform this work.

The methods used for air monitoring will meet the following provisions:

- Fugitive Dust – United States Environmental Protection Agency (USEPA) approved equivalent methods for particulate matter 2.5 microns or greater in diameter (PM-2.5) and/or particulate matter 10 microns or greater in diameter (PM-10) monitoring;
- Heavy Metals - National Institute for Occupational Safety and Health (NIOSH) Method 7300, Metal Scan; and
- Asbestos - NIOSH Method 7402, High Volume.

### 13. Emergency Response

Prior to all debris removal activities, all personnel shall review emergency egress routes for the site. All personnel shall follow direction of the Project Manager/Onsite Project Lead and/or SSHO when an emergency situation arises.

#### EMERGENCY ASSISTANCE INFORMATION

Emergency Contact	Telephone Number
Fire/Police/Ambulance	9-1-1
<b>Sutter Amador Hospital</b> 200 Mission Boulevard Jackson, CA 95642	(209) 223-7555
<b>Cal/OSHA</b>  Region 2 - Modesto Regional Office 4206 Technology Drive, Ste. 3 Modesto, CA 95356	Telephone: (209) 545-7310 Fax: (209) 545-7313

#### EMERGENCY SERVICES

All personnel shall be provided concise and clear directions and accessible transportation to local emergency services. A map showing directions to the nearest hospital will be posted on site. Fire extinguishers and a first aid kit shall be present on the site at all times.

#### MEDICAL EMERGENCY PROCEDURES

The following procedures should be observed if an accident occurs:

##### Minor Injury

- Notify the SSHO
- Have qualified first aid personnel treat injury
- Record injury and include name of injured person, nature of injury and treatment given

## **Serious or Major Injury**

In the event of a medical emergency when actual or suspected serious injury occurs, the following procedures shall be implemented:

- Survey the scene and evaluate whether the area is safe for entry.
- Remove the exposed or injured person(s) from immediate danger.
- Render first aid if necessary. Decontaminate affected personnel after critical first aid is given.
- Obtain paramedic services or ambulance transport to local hospital. This procedure shall be followed even if there is no visible injury.
  1. Call 9-1-1.
  2. Identify location, request medical assistance, provide name and telephone number.
  3. Request assistance from emergency medical service and/or additional assistance.
- Other personnel in the work area shall be evacuated to a safe distance until the SSHO determines that it is safe for work to resume. If there is any doubt regarding the condition of the work area, work shall not commence until all hazard control issues are resolved.
- Fill out accident reporting forms and associated documents.

If a fatal injury occurs, the following additional steps will be followed:

- Notify immediate supervisor;
- Notify Operations Chief/Onsite Operations Lead;
- CalRecycle will initiate contact with Cal/OSHA and other appropriate agencies;
- All work activities on the project must be stopped on the project for 24 hours; and
- Assist Cal/OSHA as directed.

## **FIRST AID**

Only qualified personnel shall give first aid and stabilize an individual needing assistance. Top priority will be given to life support techniques (e.g., CPR) and life-threatening problems (e.g., airway obstruction, shock, etc.). Professional medical assistance shall be obtained at the earliest possible opportunity.

## **SPILL RESPONSE PROCEDURES**

CalRecycle does not expect a risk of leaks or spills of contaminated liquids or hazardous liquids. However, propane tanks should be removed with caution.

In the case of a spill of such contaminated or hazardous materials, the following procedures shall be followed:

- Determine a spill has occurred
- Notify the SSHO
- Identify protective clothing or equipment required to respond
- Contain the spill
- Document incident
- Initiate appropriate clean-up

### EARTHQUAKE RESPONSE

If an earthquake should occur during the course of site activities, the following steps should be taken:

- Stop working
- Remain calm and do not panic
- If indoors, stay indoors away from windows and take cover under heavy furniture if possible
- Do not use or do anything that might be a source of ignition, i.e., smoking, cutting, or welding
- If outdoors, stay away from power lines, power poles, and windows

### SITE EVACUATION PLAN

In the general case of a large fire, explosion, or toxic vapor release, the site must be evacuated. Personnel must evaluate the situation and assess the upwind direction. Personnel must evacuate to an upwind location following these steps:

- All personnel will assemble in an upwind area when the situation permits; a head count will be taken
- Determine the extent of the problem. Dispatch a response team in appropriate protective clothing to evacuate any missing personnel or to correct the problem
- The above procedures will apply to all Team members and will be discussed with them prior to the commencement of work

The hand signal of “both hands on the waist” will be used to notify all personnel to leave the area immediately if all other means to communicate to staff on site fails.

### EMERGENCY WARNING SIGNAL

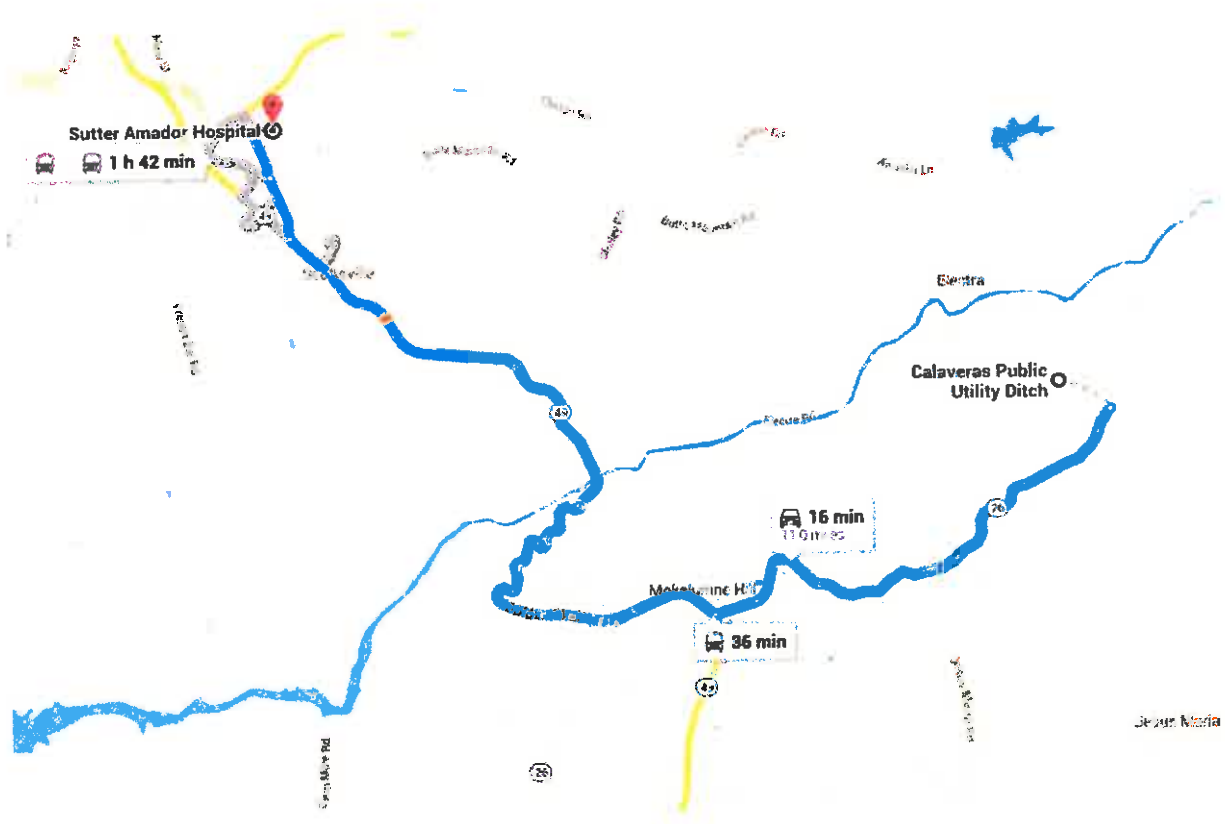
In the event of an emergency, a “warning” horn will be sounded which will be the indicator to stop work or evacuate the job site. After three loud blasts from the “warning” horn, staff will assemble at a pre-determined location. This location will be pre-determined at the tailgate meeting before work commences on site.

## 14. Emergency & Hospital Information

The nearest hospital to the job site is:

**Sutter Amador Hospital**  
 200 Mission Boulevard  
 Jackson, CA 95642  
 (209) 223-7555

- ↑ 1. Head southwest on CA-26 W toward Montgomery Dr 0.9 mi
- 2. Turn right onto CA-49 N 6.3 mi
- 3. Turn right onto Broadway 0.5 mi
- ↑ 4. Continue straight onto Mission Blvd 0.3 mi  
📍 Destination will be on the right





## **15. Training and Medical Surveillance Requirements**

### **Training**

All CalRecycle staff at this job site shall comply with CalRecycle's Health and Safety Field Policy training requirements.

All personnel are required to have current training in the following areas:

- 40-hour hazardous waste operations and emergency response (or equivalent).
- 8-hour health and safety refresher training, if applicable.
- First Aid/Cardiopulmonary Resuscitation (CPR).
- Respiratory fit testing for full face and half face shall be current.

### **Medical Surveillance**

All CalRecycle staff at this job site shall comply with CalRecycle's Health and Safety Field Policy – medical surveillance requirements. CalRecycle staff may view the Health and Safety policy and requirements at: <http://www.CalRecycle.ca.gov/Safety/Manual/>.

## **16. Site-Specific Pre-Job Safety Orientation**

All personnel entering the exclusion zone will be trained in the provisions of this SSHP and shall meet the requirements for CalRecycle's Health and Safety Policies, be required to sign the sign-in sheet and attend a site safety orientation meeting where the following topics will be covered:

- Key personnel and their responsibilities for site;
- CPR and first aid trained personnel;
- Site hazards;
- Personal protective equipment/required levels of protection;
- Location of safety equipment such as fire extinguishers;
- Site standard operating procedures and safe work practices;
- Work zones and site control measures;
- Emergency and spill response and contingency plans.

## Appendix A: Daily Tailgate Meeting Format

Date: \_\_\_\_\_  
Location: \_\_\_\_\_  
Presented by: \_\_\_\_\_

Topics Covered:

### Health and Safety Plan

- On-site organization and coordination
- Emergency medical care and procedures including evacuation
- Contingency plan
- Additional controls for complex and/or hazardous jobs

### Specific Precautions for Day's Activities

Other: \_\_\_\_\_

### Attendee List

Print Name	Signature
_____	_____
_____	_____
_____	_____
_____	_____

### Start on time.

- No. 1 – Make a clear announcement to the group for the meeting to start.
- No. 2 – Explain why the meeting is being held.
- No. 3 – Keep the meeting from going off on a tangent. If an employee brings up a topic with merit, the SSHO agrees to talk about that topic at a later date. **Keep the tailgate meeting moving and keep the promise to discuss at a later time!**
- No. 4 – Ask questions about causes and corrective actions from previous jobs. Allow time for discussion and questions.
- No. 5 – Discuss job hazards at the site along with safety controls that will prevent accidents.
- No. 6 – Ensure you point out things that are being done right as well as problem areas.
- No. 7 – Discuss seasonal safety information.
- No. 8 – Use a real accident or safety concerns case to emphasize a point. The more recent and the more close (geographically) to your location, the more effective the example will be (e.g. no scavenging for bottles). Personal experiences are usually the best example. The tailgate meeting should be no more than 10 to 15 minutes to hold the attention of the group. A copy of the daily tailgate meetings will be placed with this Site Specific Health & Safety Plan.

## Appendix B: Air Monitoring Log

Department of Resources Recycling and Recovery  
Health and Safety Program

Project Lead \_\_\_\_\_ SSHO \_\_\_\_\_

Site and Location \_\_\_\_\_

While on the job site, the Program Manager and/or Onsite Project lead shall perform air monitoring which will assist us in evaluating any potential hazards

DATE	TIME	STAFF	MONITORING LOCATION	INSTRUMENT	READING	FIELD CONDITIONS	COMMENTS

*It is important to record all the information asked for on this form. Use space on back of Log to record additional information:*

- Time: Record the time you begin monitoring.
- Location: Identify where you are (e.g. near a trench, spoil pile, etc.)
- Field Conditions: Weather (e.g. wind, rain, heat)
- Comments: Recordings may include but not be limited to the approximate depth of the trench, proximity to water or homes.

## Appendix C: On-Site Safety Inspection

Department of Resources Recycling and Recovery  
Health and Safety Program

Completed by \_\_\_\_\_ Date \_\_\_\_\_

Site and Location \_\_\_\_\_

Project Lead \_\_\_\_\_ SSHO \_\_\_\_\_

EQUIPMENT	YES	NO	N/A	COMMENTS/DATE CORRECTED
PPE assessment performed-PPE requirements in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Employees trained in the use & maintenance of PPE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hard hat areas designated and enforced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hearing protection utilized in required areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Eye protection in place where needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Safety foot protection required where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Approved respiratory protection equipment available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did respirator breakthrough occur?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Air monitoring instrumentation calibrated & working properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Tools in good condition (sampling) <i>Defective tools shall be removed from service</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Employees are properly trained in equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is personal monitoring conducted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fire extinguisher onsite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>GENERAL</b>				
No smoking and/or eating in the work area in effect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Evacuation procedures posted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Emergency telephone numbers posted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
First aid kit and fire extinguisher available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Daily tailgate safety meeting performed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>ENVIRONMENT</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>	<b>COMMENTS/DATE CORRECTED</b>
Work area adequately illuminated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Temperature within normal limits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Heat and cold stress discussed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Noise levels within normal limits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Slip and trap hazards mitigated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>HEAVY EQUIPMENT</b>				
Operators qualified/trained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Back up alarms working	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Operators working at safe speeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Safe loading and unloading of material observed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

*It is important to record all the information asked for on this form.*

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Appendix D: Executive Order B-33-15

### Executive Department State of California

#### EXECUTIVE ORDER B-33-15

**WHEREAS** on July 31, 2015, I proclaimed a State of Emergency to exist in California due to wildfires burning throughout the state, including those that were burning in Lake and Trinity counties; and

**WHEREAS** wildfires have burned thousands of acres of land, destroyed structures, including homes, damaged critical infrastructure, and forced the closure of major highways and local roads; and

**WHEREAS** the Federal Emergency Management Agency granted a Federal Fire Management Assistance Grant for the Rocky Fire burning in Lake County; and

**WHEREAS** the wildfires have created a substantial amount of ash, burnt vegetation, and debris in Lake and Trinity counties;

**WHEREAS** this debris is threatening public health and safety, and must be removed and disposed of quickly and properly to ensure that the areas can be reoccupied safely; and

**WHEREAS** under the provisions of section 8571 of the Government Code, I find that strict compliance with the various statutes and regulations specified in this order would prevent, hinder, or delay the mitigation of the effects of the wildfires.

**NOW, THEREFORE, I, EDMUND G. BROWN JR.,** Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, in particular, sections 8625 and 8571 of the California Government Code, do hereby issue this Executive Order, effective immediately.

#### IT IS HEREBY ORDERED THAT:

1. State statutes, rules, regulations and requirements are hereby suspended to the extent they apply to the following activities: (a) removal, storage, transportation, and disposal of hazardous and non-hazardous solid waste and debris resulting from the wildfires that have burned and continue to burn in areas that are subject to the jurisdiction of agencies within the California Environmental Protection Agency and the California Natural Resources Agency; and (b) necessary restoration and rehabilitation of timberland, streams, rivers, and other waterways. Such statutes, rules, regulations and requirements are hereby suspended only to the extent necessary for expediting the removal and cleanup of debris from the fires, and for implementing any restoration plan. Individuals who desire to conduct activities under this suspension of statutes, rules, regulations, and requirements shall first request that the appropriate Agency Secretary, or his delegate, make a determination that the proposed activities are eligible to be conducted under this suspension. The Secretary for the California Environmental Protection Agency and the Secretary for the California Natural Resources Agency shall



use sound discretion in applying this Executive Order to ensure that the suspension serves the purpose of accelerating cleanup and recovery, while at the same time protecting public health and the environment. This order shall apply to, but is not necessarily limited to: solid waste facility permits; waste discharge requirements for storage and disposal; emergency timber harvesting; emergency construction activities; and waste discharge requirements and/or Water Quality Certification for discharges of fill material or pollutants. To the extent it is within their administrative authority, the boards, departments and offices within the California Environmental Protection Agency and the California Natural Resources Agency shall expedite the granting of other authorizations, waivers or permits necessary for the removal, storage, transportation, and disposal of hazardous and non-hazardous debris resulting from the fires, and for other actions necessary for the protection of public health and the environment.

2. As necessary to assist local governments and for the protection of public health and the environment, state agencies shall enter into contracts to arrange for the procurement of materials, goods, and services necessary to quickly remove dangerous debris, repair damaged resources, and restore and protect the impacted watershed. Applicable provisions of the Government Code and the Public Contract Code, including but not limited to travel, advertising, and competitive bidding requirements, are suspended to the extent necessary to address the effects of the fires.

3. The Office of Emergency Services shall provide local government assistance to Lake and Trinity counties, as appropriate, under the authority of the California Disaster Assistance Act, California Government Code section 8680 et seq. and California Code of Regulations, Title 19, section 2900 et seq.

4. Health and Safety Code sections 103525.5 and 103625, and Penal Code section 14251, requiring the imposition of fees, are hereby suspended with regard to any request for copies of certificates of birth, death, marriage, and dissolution of marriage records, by any individual who lost such records as a result of the wildfires. Such copies shall be provided without charge.

5. Vehicle Code sections 9265(a), 9867, 14901, 14902 and 15255.2, requiring the imposition of fees, are suspended with regard to any request for replacement of a driver's license, identification card, vehicle registration certificate, or certificate of title, by any individual who lost such records as a result of the wildfires. Such records shall be replaced without charge.

6. The provisions of Vehicle Code sections 4602 and 5902, requiring the timely registration or transfer of title, are suspended with regard to any registration or transfer of title by any resident of Lake and Trinity counties who are unable to comply with those requirements as a result of the wildfires. The time covered by this suspension shall not be included in calculating any late penalty pursuant to Vehicle Code section 9554.

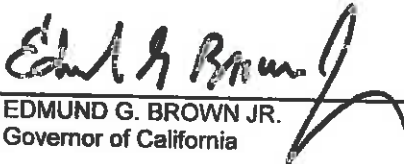
7. The provisions of Unemployment Insurance Code section 1253 imposing a one-week waiting period for unemployment insurance applicants are suspended as to all applicants who are unemployed as a direct result of the wildfires, who apply for unemployment insurance benefits during the time period beginning August 27, 2015 and ending on the close of business on February 27, 2016, and who are otherwise eligible for unemployment insurance benefits in California.

This Executive Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 27th day of August 2015.




  
EDMUND G. BROWN JR.  
Governor of California

ATTEST:

  
ALEX PADILLA  
Secretary of State

### Approvals


Prepared by:

  
 Michael Chen, Associate Industrial Hygienist

Peer reviewed by:

  
 Marc Arico, Associate Industrial Hygienist

  
 Laura Tembreull, Environmental Scientist


  
 Joanna Johnson, CIH, CSP, Associate Industrial Hygienist

The undersigned personnel certify that this health and safety plan will be utilized for the protection of the health and safety of workers during the field investigation of the Site.

 9/29/2015  
 Diane Kihara, CIH, CSP Date

 9/29/2015  
 Todd Thalhamer, PE Date

 9/29/2015  
 Diane Nordstrom-Lamkin, PG Date

 9/29/2015  
 Wes Mindermann, PE Date

The undersigned personnel have been briefed about the contents of this health and safety plan, and intend to comply with its provisions:

Signature	Name	Date