Rural Counties
Environmental Services
Joint Powers Authority
ESJPA

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY
VICE CHAIR – DENISE CARTER, COLUSA COUNTY
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)
TAG CHAIR – TEDD WARD, DEL NORTE COUNTY
TAG VICE CHAIR – GREG STANTON, EL DORADO COUNTY
PROGRAM MANAGER – STACI HEATON

Rural Counties Environmental Services Joint Powers Authority Board of Directors & Technical Advisory Meeting

1215 K St., Suite 1650
Sacramento, CA 95814

Thursday, August 13, 2020 9:00 a.m. – 2 p.m.

In accordance with Executive Orders N-25-20 and N-29-20, the August 13, 2020 Rural Counties' ESJPA Board of Directors & Technical Advisory Group Meeting will be held virtually.

MEMBERS OF THE PUBLIC MAY NOT ATTEND THIS MEETING IN PERSON

The August 13, 2020 Rural Counties' ESJPA Board of Directors & Technical Advisory Group Meeting will be facilitated virtually through Zoom. Members of the public can watch or listen to the meeting using one of the following methods:

1: Join the Zoom meeting application on your computer, tablet or smartphone:
Go to: https://rcrcnet.zoom.us/j/96281732018
Enter Password: 050145

2. Call-in and listen to the meeting:
Dial (669) 900-9128
Enter meeting ID: 962 8173 2018
Password: 050145

PUBLIC COMMENT USING ZOOM: Members of the public who join the Zoom meeting, either through the Zoom app or by calling in, will be able to provide live public comment at specific points throughout the meeting.

EMAIL PUBLIC COMMENT: One may also email public comment to sheaton@rcrcnet.org before or during the meeting. All emailed public comments will be forwarded to all ESJPA Board of Directors members.

DISABLED ACCOMMODATIONS: If you have a disability which requires an accommodation or an alternative format to assist you in observing and commenting on this meeting, or an alternative agenda document format, please contact ESJPA at (916) 447-4806 or by email at sheaton@rcrcnet.org by 10:00 a.m. Wednesday, August 12th to ensure arrangements.

Only those items that indicate a specific time will be heard at the assigned time. All other items may be taken out of sequence to accommodate the Board, the staff, and the general public. Indicated time allocations are for planning purposes only and actual times will vary from those indicated.

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

A. Overview of Virtual Meeting Procedures – Staci Heaton, ESJPA Program Manager *(5 minutes)*

II. Business Matters **Page 1**

Discussion and possible action related to the following:

A. Approval of Minutes from the Meeting of June 25, 2020 **(ACTION)** – Supervisor Michael Kobseff, ESJPA Chair *(pp 3-9; 5 minutes)*

III. Public Comment

Any person may address the Board on any matter relevant to the Authority's business, but not otherwise on the agenda.

IV. Presentations

A. Road Repair and Civil Engineering using TDA and the CalRecycle Grant program – Joaquin Wright, Environmental Program Manager and Stacey Patenaude, Waste Management Engineer, CalRecycle *(30 minutes)*

B. Trust Funds: Things to Consider – Curt Fujii, Consultant, Fujii Civil Engineering *(15 minutes)*

C. Report from CalRecycle – Marshalle Graham, Senior Environmental Scientist, and Julie Trueblood, Environmental Program Manager, CalRecycle *(10 minutes)*

V. Legislative Update **Supplemental Package**

(This item may be heard at any time during the meeting depending upon the availability of staff) Discussion of Legislation – John Kennedy, RCRC Legislative Advocate *(15 minutes)*

A. Complete Text of Selected Bills

B. Summary Listing of All Solid Waste Related Bills

****Morning Break** *(5 minutes)***

VI. Member County Concerns/Comments *(10 minutes)*

VII. Solid Waste/Regulatory Update **Page 11**

Discussion and possible action related to the following:

A. CalRecycle

- SB 1383 Short-Lived Climate Pollutant Regulations–Mary Pitto, RCRC Regulatory Affairs Advocate and Larry Sweetser, ESJPA Consultant *(pp 13-29; 15 minutes)*

- COVID-19 Relief Check-In – Staci Heaton and Larry Sweetser *(5 minutes)*
- AB 901 Recycling and Disposal Reporting Regulations – Larry Sweetser *(5 minutes)*
- SB 212 Pharmaceuticals and Sharps Waste Stewardship Program – Leigh Kammerich, RCRC Regulatory Affairs Specialist *(pp 31-32; 5 minutes)*
- Annual Electronic Reports – Larry Sweetser *(pp 33-34; 5 minutes)*
- Form 303 – Larry Sweetser *(pp 35-36; 5 minutes)*

B. California Air Resources Board
- Advanced Clean Truck Rule – Staci Heaton *(pp 37-70; 5 minutes)*

C. State Water Resources Control Board
- Waste discharge fees – Larry Sweetser *(5 minutes)*

D. Department of Toxic Substances Control
- Photovoltaic Modules – Larry Sweetser *(5 minutes)*
- Household Hazardous Waste Program Update—Larry Sweetser *(5 minutes)*

E. Extended Producer Responsibility
- California Product Stewardship Council Update – Doug Kobold, Executive Director, CPSC *(5 minutes)*
- Mattress Recycling Council Update – Michael LaRussa, Northern California Program Coordinator and Jennifer Duran, Central California Program Coordinator, Mattress Recycling Council *(5 minutes)*
- PaintCare Update – Daria Kent, Northern California Regional Coordinator, PaintCare *(5 minutes)*

F. Grant Program Update – Larry Sweetser *(5 minutes)*

G. Highlights of November CalRecycle Meetings – Larry Sweetser *(pp 71-81; 5 minutes)*

H. Other Regulatory Announcements/Issues of Interest
- Cal EPA CUPA Newsletters *(pp 83-98)*

VIII. Agenda Suggestions, Member County Presentation Volunteer, Workshop Topics for Next ESJPA Board Meeting Scheduled Thursday, August 13, 2020.

IX. Articles of Interest **Page 99**
(pp 101-134)

X. Adjournment

Pre-TAG Session BREAK *(10 minutes)*

12:10 PM

Technical Advisory Group Breakout Session

Local Recycling Needs and Recommendations

Larry Sweetser and Tedd Ward, ESJPA TAG Chair

Agenda Item II

BUSINESS MATTERS

Rural Counties Environmental Services Joint Powers Authority
Board of Directors & Technical Advisory Meeting
1215 K St., Suite 1650
Sacramento, CA 95814

Thursday, June 25, 2020

VOTING MEMBERS PRESENT

Jeff Gardner	Amador County
Denise Carter	Colusa County
Tedd Ward	Del Norte County
Lori Parlin	El Dorado County
Fred Aubrey	Inyo County
Lars Ewing	Lake County
Samuel Cerveny	Mariposa County
Justin Nalder	Mono County
Lee Adams	Sierra County
Michael Kobseff	Siskiyou County
Bob Williams	Tehama County
Diane Rader	Trinity County

STAFF IN ATTENDANCE

Staci Heaton, Program Manager	Rural Counties ESJPA
Larry Sweetser, ESJPA Consultant	Sweetser and Associates, Inc.
John Kennedy, Legislative Affairs Advocate	RCRC Governmental Affairs
Leigh Kammerich, Regulatory Affairs Specialist	RCRC Governmental Affairs
Milena De Melo, Controller	RCRC
Sanjay Lee, Financial Analyst	RCRC

GUEST SPEAKERS

Linnea Whitney Skierski	Recyclist
Marshalle Graham	CalRecycle
Michael LaRussa	Mattress Recycling Council
Nichole Dorr	PaintCare

OTHERS IN ATTENDANCE

Valerie Meza	Butte County
Paul Feriani	Calaveras County

Kathy Diaz	Calaveras County
Mike Azevedo	Colusa County
Greg Stanton	El Dorado County
Mark Moss	El Dorado County
Fred Aubrey	Inyo County
Kati Galvani	Lake County
David Garcia	Nevada County
Heidi Putnam	Plumas County
Madison Bible	Shasta County
Tom Ramont	Shasta County
Jason Ledbetter	Siskiyou County
Rachel Ross-Donaldson	Tehama County
Paul Freund	Tehama County
Nathan Birtwhistle	Tuolumne County
Jennifer Lombari	MendoRecycle
Julie Trueblood	CalRecycle
Alex Souza	CalRecycle
John Duke	CalRecycle
Jill Larner	CalRecycle
Andrew Parrish	CalRecycle
Anne Snider	CalRecycle
Spencer Fine	CalRecycle
Tim Stockett	Mattress Recycling Council
Jennifer Duran	Mattress Recycling Council
Curt Fujii	Fujii Civil Engineering

MEMBERS NOT REPRESENTED BY VOTING DELEGATES
Alpine, Butte, Glenn, Imperial, Lassen, Madera, Modoc, Shasta, and Tuolumne County.

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

At 9:02am the meeting was called to order. A roll call was taken and a quorum was determined.

II. Business Matters

A. Approval of Minutes from the Meeting of March 12, 2020

Supervisor Lori Parlin, El Dorado County, made a motion to approve the minutes of the March 12, 2020 meeting, seconded by Tedd Ward, Del Norte County. A roll call was taken and the minutes were unanimously approved.

B. Proposed Revision to ESJPA 2020 Budget, Reduction in Member Dues

Milena De Melo, RCRC Controller, presented a proposed revision to the ESJPA 2020 Budget to reflect a 50 percent reduction in Membership Dues from July 1, 2020 to June 30, 2021 in order to provide limited financial relief to member counties, but still maintain core

functions provided by ESJPA such as planning, services and advocacy. Tedd Ward, Del Norte County, made a motion to approve the proposed revision to the ESJPA 2020 Budget, seconded by Supervisor Denise Carter, Colusa County. A roll call was taken and the motion was approved unanimously.

C. ESJPA 2019 Audited Financial Statements

Sanjay Lee, RCRC Financial Analyst, discussed the 2019 audited financial statements by Moss Adams LLP, which contained an unmodified ("clean") audit opinion. Tedd Ward, Del Norte County, made a motion to approve the 2019 audited financial statement as presented; which was seconded by Supervisor Lori Parlin, El Dorado County. A roll call was taken and the motion was approved unanimously.

III. Public Comment

Any person may address the Board on any matter relevant to the Authority's business, but not otherwise on the agenda.

None received.

IV. Presentations

A. SB 1383 Compliance Tracking

Linnea Whitney Skierski, Business Development Manager for Recyclist, made a presentation of SB 1383 Compliance Tracking. Recyclist provides scalable, customizable solutions and program tracking for local jurisdictions to comply with SB 1383.

B. County presentation

Justin Nalder, Solid Waste Superintendent for Mono County, presented an overview of Mono County's ongoing development of their Green Waste Program.

C. CA Commission on Recycling Markets and Curbside Recycling – Tedd Ward, Director, Del Norte Solid Waste Management Authority *(pp 49-54; 20 minutes)*

Tedd Ward, Del Norte County, provided an overview of the California Commission on Recycling Markets and Curbside Recycling. This Commission was created pursuant to Public Resources Code 42005.5 and, in the next six months, will be publishing an initial report. The two biggest questions facing the Commission are, 1) What should be done about markets? And 2) How can we recycle better?

D. Report from CalRecycle

Julie Trueblood, CalRecycle discussed the SB 1383 regulatory timeline. CalRecycle is still processing the final documentation to submit to the Office of Administrative Law (OAL). Ms. Trueblood also discussed COVID-19 communication, such as the various letters sent to jurisdictions to determine compliance, as well as Executive Orders on recycling and processing.

Marshalle Graham, CalRecycle also provided an update on approaching grant deadlines, for Household Hazardous Waste (July 2nd), Used Oil (July 9th), small HHW (July 15th), and Beverage Containers (ongoing). Ms. Graham will send Ms. Heaton information to distribute via email concerning flexibility to the payment program for beverage containers.

V. Legislative Update

John Kennedy, RCRC Legislative Advocate, provided an update on various bills and gave an overview of the current stage of the legislative and budget process. Mr. Kennedy spoke about two bills still making their way through the legislative process:

- SB 1156 (Archuletta), regarding lithium-ion batteries and model protocols, solid waste enterprises, and guidance documents.
- SB 1238 (Hueso), a CalRecycle feasibility study on recycled plastics in paving materials.

Other bills have stalled such as:

- AB 2612 (Maienshein), $100 million continuous appropriation (from GGRF) to CalRecycle for organic waste projects to reduce GHGs
- SB 1191 (Dahle), amends various aspects of SB 1383 regulations to provide local relief.
- AB 3256 (E. Garcia), $9.7 billion Bond Act for climate resiliency and adaptation on the 2020 ballot.
- SB 54 (Allen)/AB 1080 (Gonzalez-Fletcher), single-use packaging.
- AB 1509 (Mullin & Berman), lithium-ion batteries stewardship program.
- SB 1152 (Skinner), labeling solar panels for proper disposal.
- AB 2680 (Aguiar-Curry), reporting tonnages of green material to CalRecycle.
- SB 667 (Hueso), innovating financing scheme to meet organic and solid waste goals.

Mr. Kennedy also noted the DTSC Fiscal Reform Budget Trailer Bill, which has far reaching implications on local governments, as well as the absence of the Climate Catalyst Fund from the state budget.

VI. Member County Concerns/Comments

Supervisor Kobseff discussed the success of Siskiyou County's Earth Day event, which provides disposal of green waste for $5 per load over the course of one week.

Rachel Ross-Donaldson, Tehama County, discussed the U.S. EPA expanding PFAS regulation and is concerned with how it will affect solid waste. Mr. Sweetser replied that PFAS would return as a standing agenda item in the Regulatory Update.

VII. Solid Waste/Regulatory Update

A. CalRecycle
   - SB 1383 Short-Lived Climate Pollutant Regulations

Ms. Heaton gave an update on SB 1383 and provided a formal letter written to CalRecycle on the latest version of the regulations, such as the concern over enforcement provisions. Mr.

Sweetser added that the delays with OAL approval does not impact implementation dates. There is a short timeline between approval of the regulations and deadlines to comply.

- COVID-19 Regulatory Relief

Ms. Heaton discussed the coalition efforts with the League of Cities, CSAC, and others to get regulatory relief on a number of topics, such as pushing back the implementation date of SB 1383. The coalition also had a meeting with CalRecycle and Natural Resources Agency staff on the various items requested in their formal letter, such as pushing back the SB 1383 implementation date which has statutory flexibility.

Mr. Sweetser added the various extensions in Executive Orders, and the resulting confusion, regarding beverage container recycling and plastic bags. Landfilled recyclables are not considered disaster debris for RDRS reporting. There will be more discussion during the TAG session.

- AB 901 Recycling and Disposal Reporting Regulations

Mr. Sweetser highlighted the difficulties for facilities to use the RDRS system, and potential penalties for late and missing counties. Out of state haulers now must report tonnages to CalRecycle, but not necessarily the jurisdiction. If you do not have direct access to RDRS data, make sure you get it from the haulers because it is used in the annual reports for diversion goals and you need to verify the tonnages. Out of state haulers are required to report by 4/30 and 7/30. Transfer stations report 5/31 and landfills report 6/30. CalRecycle has sent letters for late reports.

- Illegal Dumping Technical Advisory Committee Update

Mr. Sweetser reported on their recent meeting discussions, such as recent grants. Working on a Work Plan strategy.

B. California Air Resources Board
   - Advanced Clean Truck Rule

Ms. Heaton discussed a proposed Advanced Clean Trucks (ACT) Rule by the California Air Resources Board. RCRC filed formal comments outlining concerns with the proposed rulemaking on rural fleets and the unique challenges in rural areas. Supervisor Kobseff asked if CARB has contemplated a reduction in the gas tax. Ms. Heaton answered there would likely be follow-up legislation to plug any revenue holes.

Mr. Sweetser added haulers may be requesting rate increases to deal with these types of regulatory changes.

Mr. Ward said there needs to be a timeline in the forthcoming vehicle regulations for rural truck fleets to be able to lease vehicles previously used in urban areas before being retired.

C. State Water Resources Control Board
   - Waste discharge fees

Mr. Sweetser reported that Water Board Staff are only requesting a 0.2% increase in WDR fees. The Board may not make a decision until August or September, and usually adopts staff's recommendation.

D. Department of Toxic Substances Control
- Photovoltaic Modules
- Household Hazardous Waste Program Update

Mr. Sweetser said DTSC's time to respond to 15-day comment period would have expired, but was ultimately extended by the Governor (via Executive Order), before finalizing final amendments, likely by the end of the year. More HHW programs are re-opening—not all were considered essential services.

E. Grant Program Update

Mr. Sweetser mentioned the Tire Amnesty Grant is still ongoing and events are still being held. The Oil Payment Program applications are due July 9th. One issue that has come up is that a major vendor (Safety-Kleen) has refused to accept mixed oil filters—paper mixed with metal. World Oil still accepts mixed oil filters. Let him know if you have any issues with your vendors.

F. Highlights of November CalRecycle Meetings

Mr. Sweetser congratulated Madera and Del Norte Counties for completing their five-year reviews. Not all counties have applied for Beverage Container funds, but you are eligible. CalRecycle will be bringing more jurisdictions forward for compliance reviews for Mandatory Commercial Recycling (AB 341) and Mandatory Organics (AB 1826).

G. Extended Producer Responsibility
- Mattress Recycling Council Update

Michael LaRussa, Northern California Coordinator with Mattress Recycling Council, introduced two new staff serving the Central Valley Region, Jennifer Duran and Tim Stockett. Mr. LaRussa said while volume has decreased, largely due to COVID-19 retail closures, funding applications are still available. Recycling events are starting to get rescheduled. MRC recently augmented a Tire Amnesty Collection event in Colusa County. A new collection site was opened at a retailer in Chester (Plumas County).

- PaintCare Update

Nichole Dorr, Central California Regional Director, PaintCare, said program participation is returning to pre-COVID-19 levels. PaintCare is trying to keep their website updated with site locators. Lots of HHW events were postponed or cancelled. PaintCare requests 30 days' notice, if possible, to event changes in order to update contracts. Have a new docu-sign process with your PaintCare Coordinator. Events are currently limited to paint only, not offereing re-use opportunities or combining events with other stewardship products. New

events require 120 days of pre-event planning. The large volume pick-up program (200 gallons or more) has also resumed.

H. Other Regulatory Announcements/Issues of Interest
- Cal EPA CUPA Newsletters

None.

VIII. Agenda Suggestions, Member County Presentation Volunteer, Workshop Topics for Next ESJPA Board Meeting Scheduled Thursday, August 13, 2020.

Mr. Sweetser mentioned the additions of PFAS updates, tire-derived aggregate (per the request of CalRecycle), and SB 1383 discussions. Mr. Ward offered to provide an update on the Commission on Recycling Markets and Curbside Recycling.

IX. Articles of Interest

None referenced.

X. Adjournment

Adjourned 12:26pm

Agenda Item VII

SOLID WASTE REGULATORY UPDATES

SB 1383 Timeline – Sweetser & Associates, Inc. (8/13/20 version)

Date	Requirement	Section
1/1/20	50% statewide organics reduction	
~1/1/21	Landfill Status impact report (one year after effective date)	21695
1/1/22	Jurisdiction enforceable ordinance/enforceable mechanisms mandating compliance generators, haulers, other entities	18981. 2
	Tier one edible food compliance	18991.3
	Tier one commercial food inspections start	18995.1
	Annual procurement recovered organic waste product starts	18993.1
	Jurisdiction has inspection and enforcement program	18995.1
	If 18984.1 or 18984.2, Jurisdiction complete review all commercial garbage accounts generate ≥2 cy solid waste and compliance with 18984.9 (a) organic waste requirements & self-haul	18995.1
	Conduct inspections, route reviews, or compliance reviews investigation complaints	18995.1
	Provided education to non-complying organic waste generators, self-hauler, hauler, or commercial edible food waste generator. Investigate complaints.	18995.1
	Jurisdiction notify CalRecycle if implementing performance-based source-separated collection	18998.3
	Transfer/processing/composting send recovered organics offsite with no more than 20% incompatibles	17409.5.8
	Organic waste hauler identifies whether materials delivered to each receiving jurisdiction collected is source separated or mixed organics (RDRS)	18815.4
	Receiving facility mixed waste organics reports weights & Subsequent	18815.5
	Container label requirement, new containers	18984.8
	Container color requirement, new carts	18984.7
	End commercial container purchase old color	18984.9
2/1/22	Education organic waste generator	18985.1
	Edible food recovery education	18985.2
4/1/22	Initial Jurisdiction Compliance Report.	18994.1
4/1/22	If 18984.1 or 18984.2, jurisdiction conduct annual route reviews	18995.1
7/1/22	Start Gray container evaluation at attended transfer /processing	17409.5.7
8/1/22	Jurisdiction report to CalRecycle 1/1/22-12/31/24	18992.3
8/1/22	Jurisdiction annual report to CalRecycle	18994.2
10/1/22	Jurisdiction annual report to CalRecycle if comply 18994.1 (report 1/1/22-6/30/22	18994.2
1/1/23	Provided education to non-complying organic waste generators, self-hauler, hauler, or commercial edible food waste generator	18995.1
1/1/23	If 18984.1 or 18984.2, Jurisdiction complete review all commercial garbage accounts generate ≥2 cy solid waste and compliance with 18984.9 (a) organic waste requirements & self-haul.	18995.1
1/1/23	Jurisdiction notify CalRecycle if implementing performance-based source-separated collection service	18998.3
1/1/24	Transfer/processing/composting send recovered organics offsite with no more than 10% incompatibles	17409.5.8
4/1/23	If 18984.1 or 18984.2, Jurisdiction conduct annual route reviews	18995.1
8/1/23	Jurisdiction annual report to CalRecycle	18994.2
1/1/24	Document violations non-complying organic waste generators, self-hauler, hauler, or commercial edible food waste generator	18995.1
1/1/24	If 18984.1 or 18984.2, Jurisdiction complete review all commercial garbage accounts generate ≥2 cy solid waste and compliance with 18984.9 (a) organic waste requirements & self-haul.	18995.1
1/1/24	Jurisdiction notify CalRecycle if implementing performance-based source-separated collection service	18998.3
1/1/24	Tier two edible food generator compliance	18991.3
1/1/24	Tier two commercial edible food start inspections	18995.1
4/1/24	If 18984.1 or 18984.2, Jurisdiction conduct annual route reviews	18995.1

SB 1383 Timeline – Sweetser & Associates, Inc. (8/13/20 version)

8/1/24	Jurisdiction report to CalRecycle 1/1/25-12/31/34	18992.3
1/1/25	**75% statewide organics reduction**	
1/1/25	If 18984.1 or 18984.2, Jurisdiction complete review all commercial garbage accounts generate ≥2 cy solid waste and compliance with 18984.9 (a) organic waste requirements & self-haul.	18995.1
1/1/25	Jurisdiction notify CalRecycle if implementing performance-based source-separated collection service	18998.3
4/1/25	If 18984.1 or 18984.2, Jurisdiction conduct annual route reviews	18995.1
1/1/26	If 18984.1 or 18984.2, Jurisdiction complete review all commercial garbage accounts generate ≥2 cy solid waste and compliance with 18984.9 (a) organic waste requirements & self-haul.	18995.1
1/1/26	Document violations non-complying organic waste generators, self-hauler, hauler, or commercial edible food waste generator	18995.1
1/1/26	Jurisdiction notify CalRecycle if implementing performance-based source-separated collection service	18998.3
4/1/26	If 18984.1 or 18984.2, Jurisdiction conduct annual route reviews	18995.1
1/1/27	Rural procurement exemption ends	18993.1(l)
1/1/27	If 18984.1 or 18984.2, Jurisdiction complete review all commercial garbage accounts generate ≥2 cy solid waste and compliance with 18984.9 (a) organic waste requirements & self-haul.	18995.1
1/1/27	Jurisdiction notify CalRecycle if implementing performance-based source-separated collection service	18998.3
1/1/27	CalRecycle calculates jurisdiction recovered organics procurement	18993.1
4/1/27	If 18984.1 or 18984.2, Jurisdiction conduct annual route reviews	18995.1
1/1/28	If 18984.1 or 18984.2, Jurisdiction complete review all commercial garbage accounts generate ≥2 cy solid waste and compliance with 18984.9 (a) organic waste requirements & self-haul.	18995.1
1/1/28	Document violations non-complying organic waste generators, self-hauler, hauler, or commercial edible food waste generator	18995.1
1/1/28	Jurisdiction notify CalRecycle if implementing performance-based source-separated collection service	18998.3
4/1/28	If 18984.1 or 18984.2, Jurisdiction conduct annual route reviews	18995.1
1/1/29	If 18984.1 or 18984.2, Jurisdiction complete review all commercial garbage accounts generate ≥2 cy solid waste and compliance with 18984.9 (a) organic waste requirements & self-haul.	18995.1
1/1/29	Jurisdiction notify CalRecycle if implementing performance-based source-separated collection service	18998.3
4/1/29	If 18984.1 or 18984.2, Jurisdiction conduct annual route reviews	18995.1
8/1/29	Jurisdiction report to CalRecycle 1/1/30 -12/31/39	18992.3
1/1/30	Document violations non-complying organic waste generators, self-hauler, hauler, or commercial edible food waste generator	18995.1
4/1/30	If 18984.1 or 18984.2, Jurisdiction conduct annual route reviews	18995.1
1/1/32	CalRecycle calculates jurisdiction recovered organics procurement	18993.1
8/1/34	Jurisdiction report to CalRecycle 1/1/35-12/31/44	18992.3
1/1/36	Container color requirement, all carts	18984.7
1/1/37	CalRecycle calculates jurisdiction recovered organics procurement	18993.1
1/1/42	CalRecycle calculates jurisdiction recovered organics procurement	18993.1
1/1/22 1/1/25	Transfer station compliance 50%/75% diversion organics	
1/1/22 1/1/25	"High diversion organic waste processing facility" 50%/75%	17409.5.1
	Annual Tasks after 1/1/30	
Annual 1/1/XX	If 18984.1 or 18984.2, Jurisdiction complete review all commercial garbage accounts generate ≥2 cy solid waste and compliance with 18984.9 (a) organic waste requirements & self-haul.	18995.1
1/1/XX	Jurisdiction notify CalRecycle if implementing performance-based source-separated collection	18998.3

Rural Counties
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Implementation Dates for SB 1383
in Exempt Rural Counties
July 30, 2020

Counties with a population of less than 70,000 may apply for a rural exemption from complying from the **organic waste collection requirements** of Article 3 through December 31, 2026. (Section 18984.12 (c))

Alpine, Amador, Colusa, Calaveras, Del Norte, Glenn, Inyo, Lake, Lassen, Mariposa, Modoc, Mono, Plumas, San Benito, Sierra, Siskiyou, Tehama, Tuolumne, Trinity

Immediately upon approval of the regulations:

- The Board of Supervisors must send to CalRecycle a Resolution that includes a finding as to the purpose of and need for the rural exemption (but **prior to January 1, 2022**).
- Boards of Supervisors will need to determine which Department(s) will take responsibility to implement the various requirements contained in these regulations including reporting.
  - CALGreen Building Standards and the Model Water Efficient Landscape Ordinance (MWELO)
  - Edible food recovery program
  - Enforcement for each of the programs
  - Reporting and Implementation Record
- Adopt ordinances or enforceable mechanisms for implementation of SB 1383 **prior to January 1, 2022**.
- Establish an edible food recovery program that recovers 20% edible food from the waste stream **prior to 2025**.

One Year from the Effective Date of the Regulation

- Operators of Solid Waste landfills shall submit a Status Impact Report to CalRecycle that provides an analysis of the potential impacts to the landfill resulting from implementation of the organic waste disposal reduction.

January 1, 2022

- Tier 1 commercial edible food generators begin compliance with the edible food recovery program.
- Monitor and inspect for compliance with SB 1383 requirements, with enforcement beginning January 1, 2024.
- Transfer/processing/composting recovering organics shall only send offsite organics with no more than 20 percent incompatible materials by weight.

January 31, 2022

- Conduct outreach and education to all affected parties, including generators, haulers, facilities, edible food recovery organizations, and city/county departments **prior to February 1, 2022**, and annually thereafter.

April 1, 2022

- Report to CalRecycle on implementation and compliance with the requirements of SB1383 including a copy of enforceable mechanisms adopted to implement the requirements, all reporting items listed in a jurisdiction's annual report, and contact information for the compliance-related responsible person.

July 1, 2022

- At manned transfer stations/processing operations or facilities conduct quarterly grey container collection stream waste evaluations

October 1, 2022

- Submit an annual report to CalRecycle. The first report shall cover the period of January 1, 2022 – June 30, 2022. Each subsequent report shall cover the entire previous year.

August 1, 2023

- Submit the annual report to CalRecycle, and annually thereafter. Each report shall cover the entire previous year.

January 1, 2024

- Begin enforcement of applicable SB 1383 requirements.
- Tier 2 commercial edible food generators begin compliance with the edible food recovery program.
- Transfer/processing/composting recovering organics shall only send offsite organics with no more than ten percent incompatible materials by weight.

August 1, 2024

- The first organic waste recycling capacity planning report for aa ten-year period for facility and edible food recovery infrastructure is due, and every five years thereafter.

January 1, 2027

- Determine if the Performance-Based Source Separated Organic Waste Collection Service is applicable to your jurisdiction and notify CalRecycle if implementing.
- Provide organic waste collection to residents and businesses.
- Begin annual procurement requirements of recovered organic waste products that meets or exceeds the annual procurement target determined by CalRecycle.

Rural Counties
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Implementation Dates for SB 1383 for Counties with Populations of 70,000 or Greater July 31, 2020

Immediately upon approval of the regulations:

- Determine and map applicable **organic collection** waivers/exemptions from CalRecycle that may apply to the jurisdiction:
  - Counties with a population of 70,000 or more may apply for low population waivers for up to five years for some or all its generators from some or all of the organic waste collection requirements of Article 3.
  - Determine areas within the County that are at or above the 4,500-foot elevation for ***food waste*** collection waivers.
  - Determine the remaining population and areas of the county subject to organic waste collection requirements.
  - Apply for the waivers/exemptions as soon as the regulations are effective, as it will impact the extent of your collection requirements.
- Determine if the Performance-Based Source Separated Organic Waste Collection Service is applicable to your jurisdiction.
- Boards of Supervisors will need to determine which Department(s) will take responsibility to implement the various requirements contained in these regulations including reporting.
  - CALGreen Building Standards and the Model Water Efficient Landscape Ordinance (MWELO)
  - Edible food recovery program
  - Enforcement for each of the programs
  - Reporting and Implementation Record
- Adopt ordinances or enforceable mechanisms for implementation of SB 1383 **prior to January 1, 2022**.
- Establish an edible food recovery program that recovers 20% edible food from the waste stream **prior to 2025**.

One Year from the Effective Date of the Regulation

- Operators of Solid Waste landfills shall submit a Status Impact Report to CalRecycle that provides an analysis of the potential impacts to the landfill resulting from implementation of the organic waste disposal reduction.

January 1, 2022

- Notify CalRecycle if implementing a performance-based source separated collection service.
- Provide organic waste collection to residents and remaining small businesses.
- Begin annual procurement requirements of recovered organic waste products that meets or exceeds the annual procurement target determined by CalRecycle.
- Tier 1 commercial edible food generators begin compliance with the edible food recovery program.
- Monitor and inspect for compliance with SB 1383 requirements, with enforcement beginning January 1, 2024.

- Container label and color requirements start for new containers
- Transfer/processing/composting recovering organics shall only send offsite organics with no more than 20 percent incompatible materials by weight.

January 31, 2022
- Conduct outreach and education to all affected parties, including generators, haulers, facilities, edible food recovery organizations, and city/county departments **prior to February 1, 2022**, and annually thereafter.

April 1, 2022
- Report to CalRecycle on implementation and compliance with the requirements of SB1383 including a copy of enforceable mechanisms adopted to implement the requirements, all reporting items listed in a jurisdiction's annual report, and contact information for the compliance-related responsible person.
- Conduct annual route reviews or perform waste evaluations.

July 1, 2022
- At staffed transfer stations/processing operations or facilities conduct quarterly grey container collection stream waste evaluations

August 1, 2022
- The first organic waste recycling capacity planning report on the period covering January 1, 2022 through January 1, 2024 for facility and edible food recovery infrastructure is due.

October 1, 2022
- Submit an annual report to CalRecycle. The first report shall cover the period of January 1, 2022 – June 30, 2022. Each subsequent report shall cover the entire previous year.

January 1, 2023
- Provide education to non-complying organic waste generators, self-hauler, hauler, or commercial edible food waste generator
- Jurisdiction complete review commercial garbage account that generated ≥2 cy solid waste and compliance organic waste requirements & self-haul.

August 1, 2023
- Submit the annual report to CalRecycle, and annually thereafter. Each report shall cover the entire previous year.

January 1, 2024
- Begin enforcement of applicable SB 1383 requirements.
- Tier 2 commercial edible food generators begin compliance with the edible food recovery program.
- Transfer/processing/composting recovering organics shall only send offsite organics with no more than ten percent incompatible materials by weight.

August 1, 2024
- The organic waste recycling capacity planning report for a ten-year period for facility and edible food recovery infrastructure is due, and every five years thereafter until August 1, 2034.

Rural Counties
Environmental Services
Joint Powers Authority
ESJPA

Implementation Dates for SB 1383
for Counties with Populations of 70,000 or Greater
July 31, 2020

Immediately upon approval of the regulations:

- Determine and map applicable **organic collection** waivers/exemptions from CalRecycle that may apply to the jurisdiction:
  - Counties with a population of 70,000 or more may apply for low population waivers for up to five years for some or all its generators from some or all of the organic waste collection requirements of Article 3.
  - Determine areas within the County that are at or above the 4,500-foot elevation for ***food waste*** collection waivers.
  - Determine the remaining population and areas of the county subject to organic waste collection requirements.
  - Apply for the waivers/exemptions as soon as the regulations are effective, as it will impact the extent of your collection requirements.
- Determine if the Performance-Based Source Separated Organic Waste Collection Service is applicable to your jurisdiction.
- Boards of Supervisors will need to determine which Department(s) will take responsibility to implement the various requirements contained in these regulations including reporting.
  - CALGreen Building Standards and the Model Water Efficient Landscape Ordinance (MWELO)
  - Edible food recovery program
  - Enforcement for each of the programs
  - Reporting and Implementation Record
- Adopt ordinances or enforceable mechanisms for implementation of SB 1383 **prior to January 1, 2022**.
- Establish an edible food recovery program that recovers 20% edible food from the waste stream **prior to 2025**.

One Year from the Effective Date of the Regulation

- Operators of Solid Waste landfills shall submit a Status Impact Report to CalRecycle that provides an analysis of the potential impacts to the landfill resulting from implementation of the organic waste disposal reduction.

January 1, 2022

- Notify CalRecycle if implementing a performance-based source separated collection service.
- Provide organic waste collection to residents and remaining small businesses.
- Begin annual procurement requirements of recovered organic waste products that meets or exceeds the annual procurement target determined by CalRecycle.
- Tier 1 commercial edible food generators begin compliance with the edible food recovery program.
- Monitor and inspect for compliance with SB 1383 requirements, with enforcement beginning January 1, 2024.

- Container label and color requirements start for new containers
- Transfer/processing/composting recovering organics shall only send offsite organics with no more than 20 percent incompatible materials by weight.

January 31, 2022
- Conduct outreach and education to all affected parties, including generators, haulers, facilities, edible food recovery organizations, and city/county departments **prior to February 1, 2022**, and annually thereafter.

April 1, 2022
- Report to CalRecycle on implementation and compliance with the requirements of SB1383 including a copy of enforceable mechanisms adopted to implement the requirements, all reporting items listed in a jurisdiction's annual report, and contact information for the compliance-related responsible person.
- Conduct annual route reviews or perform waste evaluations.

July 1, 2022
- At staffed transfer stations/processing operations or facilities conduct quarterly grey container collection stream waste evaluations

August 1, 2022
- The first organic waste recycling capacity planning report on the period covering January 1, 2022 through January 1, 2024 for facility and edible food recovery infrastructure is due.

October 1, 2022
- Submit an annual report to CalRecycle. The first report shall cover the period of January 1, 2022 – June 30, 2022. Each subsequent report shall cover the entire previous year.

January 1, 2023
- Provide education to non-complying organic waste generators, self-hauler, hauler, or commercial edible food waste generator
- Jurisdiction complete review commercial garbage account that generated ≥2 cy solid waste and compliance organic waste requirements & self-haul.

August 1, 2023
- Submit the annual report to CalRecycle, and annually thereafter. Each report shall cover the entire previous year.

January 1, 2024
- Begin enforcement of applicable SB 1383 requirements.
- Tier 2 commercial edible food generators begin compliance with the edible food recovery program.
- Transfer/processing/composting recovering organics shall only send offsite organics with no more than ten percent incompatible materials by weight.

August 1, 2024
- The organic waste recycling capacity planning report for a ten-year period for facility and edible food recovery infrastructure is due, and every five years thereafter until August 1, 2034.

Rural Counties
Environmental Services
Joint Powers Authority

ESJPA

Planning for Implementation of SB 1383
February 27, 2020

➢ Determine the Scope of SB 1383 requirements for your jurisdiction.

- Determine and map applicable organic collection waivers/exemptions from CalRecycle that may apply to the jurisdiction:
  - Counties with a population of less than 70,000 may apply for a rural exemption from complying from the organic waste collection requirements of Article 3 through December 31, 2026.
    - The Board of Supervisors must adopt a resolution that includes a finding as to the purpose of and need for the exemption prior to January 1, 2022.
    - Procurement requirements are delayed until January 1, 2027.
    - The first capacity planning report for infrastructure is delayed two years, until August 1, 2024.
  - Counties with a population of 70,000 or more may apply for low population waivers for up to five years for some or all its generators from some or all of the organic waste collection requirements of Article 3.
    - Low populations are census tracts with less than 75 persons per square mile or cities with less than 7,500 persons that had less than 5,000 tons of waste in 2014.
    - A jurisdiction may apply to renew this waiver at anytime up to 180 days prior to the expiration of the existing waiver.
  - Determine areas within the County that are at or above the 4,500-foot elevation for *food waste* collection waivers.
  - Determine the remaining population subject to organic waste collection requirements.
  - Apply for the waivers/exemptions right away, as it will impact the extent of your requirements.
- Determine the number of Tier 1 and Tier 2 businesses subject to the edible food recovery requirements.
  - Tier 1 – Supermarket (gross annual sales of at least $2 million), grocery store (facility size 10,000 square feet), food service provider, food distributor, and wholesale food vendor.
  - Tier 2 – Restaurant with 250 or more seats, or a total facility size of 5,000 square feet, hotel with an on-site food facility and 200 or more rooms, health facility with an on-site food facility and 100 or more beds, large venues (e.g. county fair with more than 2,000 individuals per day), large events (e.g. sporting events or flea market with more than 2,000 individuals per day) , a state agency with a cafeteria with 250 or more seats or a total cafeteria facility size at least 5,000 square feet, a local education agency with an on-site food facility.
  - The number of qualifying businesses may impact how you would like to proceed with your program.
- SB 1383 extends beyond the Solid Waste Management Department and Programs. Boards of Supervisors will need to determine what Department will take responsibility to implement the various requirements contained in these regulations.
  - The CalGreen Construction and Demolition Debris and Model Water Efficient Landscape Ordinance is generally administered by the Building Department. Should the Building Official

be directly responsible to meet the requirements of Article 8 of this Chapter implementing the CALGreen Building Standards and the Model Water Efficient Landscape Ordinance (MWELO), including the reporting requirements?
    - SB 1383 requires jurisdictions annually procure a quantity of recovered organic waste products that meets or exceeds its annual procurement target determined by CalRecycle. Qualified products include compost, renewable gas used for fuel for transportation, electricity, heating application, electricity from biomass conversion, and mulch. The procurement requirements impact various departments. Should the procurement requirements including retaining documentation be administered through the County Administrative Office, Purchasing, or individual departments (which can be electronic)?
    - SB 1383 includes an edible food recovery program. Should this program be administered through Social Services, Environmental Health, an Edible Food Recovery Task Force/working group that could include representatives from the Social Services Department, Environmental Health Department, Food Banks, Tier 1 and Tier 2 businesses, non-governmental organizations, churches, and other organizations to meet the requirements of Article 10 of this Chapter, including the reporting requirements.
    - SB 1383 requires new responsibilities on LEAs.
    - Who will be responsible for enforcement for each of the programs?
    - Who will be responsible for the Implementation Record that is to gather all reporting requirements and kept in one central location?
- Determine if the Performance-Based Source Separated Organic Waste Collection Service is applicable to your jurisdiction.

➢ Adopt ordinances or enforceable mechanisms for implementation of SB 1383 by January 1, 2022.

- Determine cost and timeline associated with adopting enforceable mechanisms for SB 1383 implementation.
- Determine how to provide the required services and negotiate any necessary changes too existing collection contracts or franchise agreements.
- Components to be addressed are:
    - Organic waste collection service, including self-haul compliance.
    - Education and outreach, monitoring and inspections, enforcement, recordkeeping and reporting.
    - Edible food recovery.
    - Organic waste capacity planning.
    - Procurement.
    - CalGreen Building standards for recycling containers in new commercial and multi-family construction and construction and demolition recycling of residential and non-residential construction debris.
    - Model Water Efficient Landscape Ordinance for new construction to meet Water Efficient Landscape requirement for compost and mulch application.

➢ Provide organic waste collection to residents and remaining small businesses by January 1, 2022 (January 1, 2027, for an approved rural exemption).

- Determine amount of additional organic waste to be collected.
    - Identify the amount of waste disposed in your jurisdiction in 2014 and calculate the amount of organic waste in the waste stream (baseline).
    - Calculate the 50% diversion target for 2020.
    - Calculate the 75% diversion target for 2025.
- Determine types and amounts of organic waste being discarded either through waste composition studies or using CalRecycle's Waste Characterization Estimates tool.

    - Food waste
    - Leaves and grass
    - Pruning and trimmings
    - Branches and stumps
    - Lumber
    - Agricultural green waste
    - Organic textiles
    - Organic carpets
    - Paper products
    - Printing and writing paper
    - Manure
    - Biosolids
    - Digestate
    - Sludges
- Determine potential programs for organic diversion.
    - Reducing food waste
    - Backyard composting
    - Community composting/gardening
    - Animal feed opportunities
    - Land application opportunities
    - Compost operations
    - Anaerobic digestion facilities
- Identify existing organic processing facilities locations and available organic processing facility capacities.
    - Determine diversion rates for compliance with "high diversion organic waste processing facility" requirements.
    - What types of organics will be accepted?
    - Determine transportation costs and costs associated with the facilities.
    - Determine needed facility capacities and costs associated with new or expanded facilities.
- Identify existing collection haulers and collection systems.
- Working with the haulers, determine changes required and the associated cost to the collection system.
    - Route/collection system changes
    - Cart color changes
    - Labeling
    - For 2 or 3 container service, monitoring for container contamination
        - Annual random route reviews, or
        - Waste composition studies two times per year
- Determine compliance mechanisms and costs for self-haulers.

➢ Establish an edible food recovery program by January 1, 2022 that recovers 20% edible food from the waste stream by 2025.

- Determine scope of the program
    - Determine which Department is responsible to implement edible food recovery program.
        - Staffing
        - Recordkeeping
        - Enforcement
        - Reporting
    - Decide if the jurisdiction will include a task force/working groups made up of interested parties for edible food recovery for people and edible food recovery for animals
        - Responsibilities and expectations of the body
        - Number and composition of members
        - Number of meetings

- Determine Tier 1 and Tier 2 commercial generators edible waste.
  - Determine amount of food currently donated and to whom.
  - Determine amount of food currently discarded.
- Identify existing food recovery organization and services.
  - Develop and annually maintain list of food recovery organizations within the jurisdiction on the website.
  - Identify existing partnerships.
  - Determine their existing capacity and needs to expand capacity.
- Determine costs associated with program implementation.
- Provide education and outreach to commercial edible food generators regarding edible food donation requirement, and available edible food recovery organizations.
- Identify ways to increase donations.
- Identify ways to increase potentially new partnerships.
- Monitor commercial food generators compliance.
- Conduct appropriate enforcement.
- Explore funding mechanisms to increase food recovery.

➢ Conduct outreach and education to all affected parties, including generators, haulers, facilities, edible food recovery organizations, and city/county departments prior to February 1, 2022.

- Determine how and the cost to provide education and outreach.
- Annually provide information to organic waste generators on the proper segregation for the type of collection service provided, methods for prevention and recycling, methane reduction benefits, public health, safety and environmental impacts, through print or electronic media or direct contact through workshops, meetings, or on-site visits.
- Develop and maintain a list of food recovery organizations and services operating within the jurisdiction and maintain the list on the jurisdiction's website, updated annually.
- Annually provide commercial businesses that generate edible food with information about the jurisdiction's edible food recovery collection program, about commercial edible food generators requirements, about food recovery organization and services operating within the jurisdiction, and information about actions that commercial edible food generators can take to prevent the creation of food waste.
- Translation of education materials into any non-English language spoken by a substantial number of the public provided organic waste collection services is left to the discretion of the local agency.

➢ Capacity Planning: Evaluating and planning for your jurisdiction's implementation of SB 1383 beginning August 1, 2022 (August 1, 2024, for counties with an approved rural exemption).

- Determine costs associated with capacity planning requirements.
- Counties shall report the capacity planning for organic waste processing facilities and edible food recovery capacity to CalRecycle by August 1, 2022, for the period covering January 1, 2024, through December 31, 2024 (except for those counties with a rural exemption).
- Beginning August 1, 2024 and every five years thereafter all counties shall report to CalRecycle the capacity planning for ten-year periods beginning the following January 1.
- Counties are responsible to coordinate with the cities to estimate existing, new and/or expanded capacity.
- Counties and cities must demonstrate that they have access to recycling capacity through existing written documented arrangements.
- If capacity is insufficient, then each jurisdiction that lacks capacity must submit an implementation schedule to CalRecycle that includes specified timelines and milestones, including necessary funding.

- Procure recycled organic waste products like compost, mulch, and renewable natural gas (RNG) beginning by January 1, 2022 (January 1, 2027 for counties with an approved rural exemption).

  - Identify potential costs associated with procurement requirements to the various departments.
    - CalRecycle will provide a minimum procurement target that is linked to the jurisdiction's population.
    - CalRecycle will provide a calculator with the conversion factors for the various products procured.
  - The jurisdiction can decide what mix of products it will purchase or use.
  - A jurisdiction may count procurement from direct service providers (for example, its haulers).

- Monitor and inspect for compliance with SB 1383 beginning January 1, 2022, with enforcement beginning January 1, 2024.

  - Identify staff to conduct monitoring and inspections for various aspects of compliance.
    - Collection service
    - Edible food recovery program
  - Identify costs associated with enforcement against organic waste generators that are not in compliance.

- Maintain accurate and timely records of SB 1383 compliance.

  - Consider purchase of software program.
  - Determine cost to maintain records of all relevant documents supporting compliance with each requirement.
    - Copies of ordinances, contracts, agreements, policies, procedures, and programs.
    - Documentation and correspondence for
      - Organics collection
      - Container contamination minimization
      - Waivers and exemptions
      - Education and outreach
      - Hauler program
      - Edible food recovery program
      - Procurement
      - Enforcement
    - Documentation of which collection method(s) will be used and the geographical area for each collection method; if applicable, a list of all the high diversion organic waste processing facilities used and their quarterly and annual average mixed waste organic content recovery rates; a list of all approved haulers, and the geographical areas the hauler(s) serve; and if applicable, written notification from each facility that can recover compostable plastics to be placed in the green container or organic waste to be collected in plastic bags.
    - Process for determining the level of container contamination and documentation of the route reviews conducted; if applicable documentation of waste composition studies, including information on targeted route reviews conducted as a result of the studies, the dates of the studies, the location of the solid waste facility where the study was performed, routes, source sector, number of samples, weights and ratio of prohibited container contaminants and total sample size; copies of all written notices, violations, education and enforcement orders issued to generators; and documentation of the number of containers disposed of due to observation of prohibited container contaminants.
    - Description of the hauler program including type of hauler systems used, type and conditions of approvals per type of hauler, and criteria for approvals, denials, and revocations; the

jurisdictions process for issuing, revoking, and denying self-hauling and back-hauling; and records of hauler compliance including copies of reports required by haulers, and copies of all written approvals, denials, and revocations.

- Reporting requirements commencing 2022, and annually thereafter to the Department.

  - Determine costs associated with reporting requirements.
    - Beginning April 1, 2022, report on implementation and compliance with the requirements of this chapter including a copy of enforceable mechanisms adopted to implement the requirements, all reporting items listed in a jurisdiction's annual report, and contact information for the compliance-related responsible person.
    - Commencing August 1, 2022 and annually thereafter submit an annual report. The first report shall cover the period of January 1, 2022 – June 30, 2022 and is due October 1, 2022. Each subsequent report shall cover the entire previous year.

  - Each jurisdiction shall report the following:
    - Relative to the collection service: the type of organic waste collection services provided to its generators, the total number of generators receiving each type of organic waste collection service, and the RDRS Number of any high diversion organic waste processing facility it uses. If the jurisdiction allows placement of compostable plastic in green containers or organic waste to be collected in plastic bags, notices from each facility that accepts and recovers that material.
    - Relative to contamination monitoring: the number of route reviews conducted for container contaminants; the number of times notices, violations, or targeted education material were issued; the number of notifications received from a solid waste facility operator regarding container contaminants received at the facility, and the results of waste composition studies performed to meet the container contamination minimization requirement and resulting targeted route reviews.
    - Relative to waivers: the number of days an emergency circumstances waiver in effect ant the type of waiver issued, the tons of organic waste that were disposed as a result of waivers, the number of generators issued a physical space waiver, the number of generators waived by the department from the requirements of organic waste collection service.
    - Regarding education and outreach: the number of organic waste generators and edible food generators that received information and the type of education and outreach use and the number of limited English speaking and linguistically isolated households that received information.
    - Regarding the hauler oversight requirements: the number of haulers approved to collect organic waste, the RDRS number of each facility that is receiving organic waste from haulers, and the number of haulers that have had their approval revoked or denied, and the number of self-haulers approved to operate within the jurisdiction.
    - Regarding the CALGreen Building Standards: the number of Construction and Demolition removal activities conducted; and the Model Water Efficient Landscape Ordinance: the number of projects subject to the ordinance.
    - Regarding the edible food recovery: the number of commercial edible food generators, the number of food recovery services and organizations that contract with or have written agreements with commercial edible food generators, and the total amount of edible food recovered by edible food recovery organizations and services.
    - Regarding the organic waste recycling capacity planning and edible food recovery capacity planning: the tons estimated to be generated for disposal, the amount of capacity verifiably available to the county and jurisdictions within the county, the amount of new capacity needed, the location identified for new or expanded facilities, the jurisdictions that are required to submit implementation schedules, and the jurisdictions that did not provide information required to the county within 120 days.

- Regarding the procurement requirements: the amount of each recovered organic waste product procured directly or through direct service providers by the county or cities during the prior calendar year, the total dollar amount spent on all paper purchases, the total dollar amount spend on all recycled content paper purchases, the total amount of transportation fuel, electricity, and gas for heating applications and pipeline injection procured from the previous year if the jurisdiction procures a reduced amount pursuant to section 18993.1. (j), and additional procurement opportunities identified within the jurisdiction's departments.
- Regarding compliance, monitoring, and enforcement: the number of commercial businesses subject to compliance reviews and the number of violations found and corrected; the number or route reviews conducted; the number of inspections conducted by type for commercial edible food generators, food recovery organizations, and commercial businesses; the number of complaints received, investigated, and violations found; and the number of NoVs and penalties issued by type of entity, and the number of enforcement actions that were resolved categorized by type of regulated entity.

➢ Facility monitoring requirements.

- Transfer stations/processing operations or facilities - grey container collection stream waste evaluations
  - Identify manned transfer stations or processing facilities and determine the annual volume going to landfill.
  - Determine the cost of quarterly grey container collection stream waste evaluations for those transfer stations or facilities that receive more than 500 tons of solid waste from at least one jurisdiction annually. (CalRecycle estimated that each sample would require an additional four hours of staff time.)
    - Beginning July 1, 2022, take one random, composite sample taken from various times during the operating day, representative of an operating day, of at least 200 pounds from the incoming gray container collection stream received by the facility.
    - Record the weight of the sample.
    - Remove any remnant organic material and determine the weight of that remnant organic material.
    - Determine the ratio of remnant organic material in the sample.
  - With written notification to the LEA, the gray container waste evaluations may be conducted offsite at an alternative, permitted or authorized solid waste facility or operation provided that the material is not processed prior to its transfer offsite for the waste evaluation.
  - Records of the waste evaluations and training of personnel in evaluating the amount of remnant organic material shall be maintained for 5 years and be available for review.

- Transfer stations/processing facilities
  - Identify organic waste processing facilities (MRFs, compost facilities, AD facilities)
  - Determine the cost of the monitoring requirements of organic waste recovered from mixed waste organic waste collection streams and source separated organic waste collections streams. (CalRecycle based its estimate on sampling 40 days per year and estimated that each sampling event would require two hours of employee time for a total of 80 hours per facility and a facility cost of $4,560/year.)
    - Quarterly, measurements shall be performed over 10 consecutive operating days.
    - On each sampling day, take one sample of at least 200 pounds from each organic waste type separated after processing, representative of a typical operating day and taken either from various times of the day or from various locations within each pile of each of the organic waste types prior to sending to its destination.
    - Record the weight of each sample from each organic waste type.
    - Remove any incompatible material and determine the remaining weight of organic waste for each sample.
    - Determine the ratio of the remaining weight of organic waste to the total sample for each type of organic waste.

        - Multiply the ratio for each type of organic waste by the total weight of all of the same type of organic waste separated after processing for its destination.
        - Determine the total weight of organic waste separated from the collection stream by adding the sum of all the weights calculated above.
    - Determine the cost of the monitoring requirements of organic waste removed from mixed waste organic waste collection streams and source separated organic waste collections streams for disposal. (CalRecycle based its estimate on sampling 40 days per year and estimated that each sampling event would require two hours of employee time for a total of 80 hours per facility and a facility cost of $4,560/year.)
        - Quarterly, measurements shall be performed over 10 consecutive operating days.
        - On each sampling day, take one sample of at least 200 pounds representative of a typical operating day and taken either from various times of the day or from various locations within each pile of each of the organic waste types prior to sending to its destination.
        - Record the total weight of the sample.
        - Remove any incompatible material and determine the remaining weight of organic waste in the sample.
        - Determine the ratio of the organic waste present in the materials removed for disposal to the total sample.
        - Determine the total weight of organic waste removed from the collection stream that is sent to disposal by multiplying the ratio determined above by the total weight of the materials removed from the collection stream for disposal.
    - The measurements shall be conducted in the presence of the EA when requested and the EA may require the operator to increase the frequency of measurements and/or revise the protocol to improve accuracy. An alternative measurement protocol may be approved by the EA with concurrence by the Department.
- Compost facilities
    - Determine the quarterly percentage of organic waste contained in materials sent to landfill disposal.
    - The sampling protocol shall be conducted over 10 consecutive operating days.
    - Each operating day, the sampling protocol is:
        - Take one random, representative sample of at least 200 pounds of materials that is sent to disposal on that operating day, taken either from various times of the day or from various locations.
        - Record the total weight of the sample.
        - Remove any material that is not organic waste and determine the remaining weight of organic waste in the sample.
        - Determine the ratio of the organic waste in the materials by dividing the total from the remaining weight of organic waste by the total weight of the sample.
        - Determine the total weight of organic waste that is sent to disposal by multiplying the ratio determined above by the total weight of the materials sent to landfill disposal.
        - Record the sum of outgoing weights of organic waste present in the material from the 10 sampling days that is sent to landfill disposal each day.
        - Determine the ratio of organic waste sent to disposal by dividing the total from above by the total outgoing weights of material that is sent to disposal each sampling day.
        - Determine the percentage of organic waste present in the material sent to disposal.
    - The measurement shall be conducted in the presence of the EA when requested and the EA may require the operator to increase the frequency of measurements and/or revise the protocol to improve accuracy. An alternative measurement protocol may be approved by the EA with concurrence by the Department.
- In-vessel digestion facilities
    - Determine the quarterly percentage of organic waste contained in materials sent to landfill disposal.
    - The sampling protocol shall be conducted over 10 consecutive operating days.

- Each operating day, the sampling protocol is:
  - Take one random, representative sample of at least 200 pounds of materials that is sent to disposal on that operating day, taken either from various times of the day or from various locations.
  - Record the total weight of the sample.
  - Remove any material that is not organic waste and determine the remaining weight of organic waste in the sample.
  - Determine the ratio of the organic waste in the materials by dividing the total from the remaining weight of organic waste by the total weight of the sample.
  - Determine the total weight of organic waste that is sent to disposal by multiplying the ratio determined above by the total weight of the materials sent to landfill disposal.
  - Record the sum of outgoing weights of organic waste present in the material from the 10 sampling days that is sent to landfill disposal each day.
  - Determine the ratio of organic waste sent to disposal by dividing the total from above by the total outgoing weights of material that is sent to disposal each sampling day.
  - Determine the percentage of organic waste present in the material sent to disposal.
- The measurement shall be conducted in the presence of the EA when requested and the EA may require the operator to increase the frequency of measurements and/or revise the protocol to improve accuracy. An alternative measurement protocol may be approved by the EA with concurrence by the Department.

- Landfills
  - Determine the cost to prepare a Status Impact Report (SIR) that provides an analysis of the potential impact to the landfill resulting from the implementation of the organic disposal reduction requirements.
  - The SIR shall be submitted to CalRecycle within a year of the effective date of this regulation.
  - The SIR shall be prepared by a CA registered civil engineer or certified engineering geologist; and contain specific and detailed information:
    - Site development
    - Waste types/volumes
    - Daily and intermediate cover and beneficial use
    - Volumetric capacity based on reduction requirements
    - Waste handling methods
    - Gas control and monitoring systems
    - Gas generation
    - Operation and closure design
    - Final grading plan
    - Site life estimate
    - Ancillary facilities
    - Cost estimate for closure and postclosure
    - Financial assurance mechanisms for closure, postclosure, and non-water corrective action requirements

RURAL COUNTY REPRESENTATIVES
OF CALIFORNIA

July 29, 2020

Mr. Jason Smyth
Materials Management and Local Assistance Division
California Department of Resources
Recycling and Recovery
P.O. Box 4025
Sacramento, CA 95814

Transmittal Via E-mail: pharmasharps@calrecycle.ca.gov

RE: Pharmaceutical and Sharps Waste Stewardship Program, 15-Day Public Comments

Dear Mr. Smyth:

On behalf of the Rural County Representatives of California (RCRC), I write in response to the Notice of Changes to Proposed Rulemaking for the Pharmaceutical and Sharps Waste Stewardship Program to implement Senate Bill 212 (Chapter 1004, 2018). RCRC is an association of thirty-seven rural California counties, and the RCRC Board of Directors is comprised of elected county supervisor from those member counties. In addition, twenty-four of RCRC member counties have formed the Rural Counties Environmental Services Joint Powers Authority (ESJPA) to assist solid waste managers in rural counties. These solid waste managers are charged with ensuring their respective counties meet state-imposed requirements in order to reduce waste being disposed and increase recycling/re-use efforts for certain products.

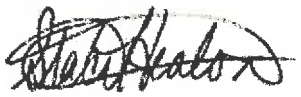
In general, RCRC and ESJPA continue to support the regulatory model as proposed and we appreciate many of the changes to the original proposed draft, which were largely clarifying in nature. Overall, it is our objective to ensure these stewardship programs do not result in a reduction of currently available services in counties. With regard to the specific changes made, we appreciate the inclusion of notification procedures to local agencies, and others, for safety and security incidents related to collection, transportation and disposal of covered drugs, as well as secure receptable collection of sharps.

We urge CalRecycle to reconsider many of our overlooked requests that would greatly improve Household Hazardous Waste (HHW) programs, especially in rural areas facing tight budgets and limited economies of scale. Specifically:

- There should be a mechanism to ensure local agencies can recover costs by covered entities to mitigate pharmaceuticals that wind up in solid waste, wastewater or sanitation facilities, not to mention parks or other public places. Further, local agencies that conduct testing of inert drugs, such as an aquatic toxicity test, should be reimbursed for these activities in the course of ensuring that pharmaceuticals are properly disposed and managed.
- Stewardship Organization(s) should be encouraged to financially contribute to a local agency's advertisements rather than create separate campaigns for education and outreach. Local entities, for example, provide public education through its HHW programs. Residents and consumers should receive consistent and comprehensive messaging.
- HHW programs should have an opportunity to receive sharps containers and dispose collected sharps under the stewardship program. This avenue could be one of the options under section 18972.1 (a)(11)(C). Many of these HHW programs have large (e.g. 30-gallon) containers to hold collected sharps, which should be eligible for free disposal rather than having to stockpile mail-away containers.

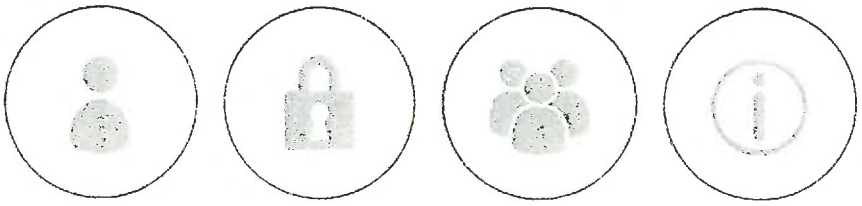
Thank you for your consideration of our comments. Please contact me at sheaton@rcrcnet.org if you have any questions or would like to further discuss our comments.

Sincerely,



STACI HEATON
Senior Regulatory Affairs Advocate

cc: Members of the Rural Counties' Environmental Services Joint Powers Authority Board of Directors
The Honorable Hannah-Beth Jackson, Member of the State Senate



The 2020 Verification Questionnaire report cycle is open.

EVQ Training Video | Watch Now

ID Number Inactive?

To reactivate your ID number(s), complete the 2020 Verification Questionnaire.

Check the Status of your ID Number

By ID Number | View
By Company | View

Pay Fees by Credit Card

To pay for your ID number verification and hazardous waste manifest fees by credit card, please go to our payment processing system.

What is the purpose of the Annual EPA ID Number Verification Questionnaire?

Anyone who generates, transports, offers for transport, treats, stores, or disposes of hazardous waste must have a hazardous waste identification (ID) number, which is used to identify the hazardous waste handler and track the hazardous waste from the point of origin to its final disposal ("cradle to grave"). The purpose of this verification is to ensure that the information on record for the EPA ID Number is correct and current.

The annual Verification Questionnaire and fees assessment for hazardous waste ID numbers and hazardous waste

manifests is required by Health & Safety Code section 25205.15 and 25205.16. Any generator, transporter, or facility operator who fails to provide information required by the department to verify the accuracy of hazardous waste activity data shall be subject to suspension of any and all identification numbers assigned and to any other enforcement action (Health & Safety Code section 25205.16(c)).

Popular Links

- EPA ID Number Verification Questionnaire FAQs
- Verification Questionnaire Step by Step Guide
- Hazardous Waste ID Numbers
- Fee Summary
- California Hazardous Waste Classification (Online Course)
- Managing Hazardous Waste
- Hazardous Waste Manifests
- Hazardous Waste Tracking System (HWTS)
- Check My ID Number Status

Subject: **Annual Reporting: Household Hazardous Waste Collection, Form 303 Open Season Reminder**

Date: 6/9/2020 7:32:45 AM Pacific Standard Time

From: form303@calrecycle.ca.gov

To: lsweetser@rcrcnet.org

It is that time of year (again) and I hope this email finds you and your loved ones healthy and happy.

This is a reminder that on July 1, 2020, the Form 303 database will open for the self-reporting of your Household Hazardous Waste Collections for the period 7/1/2019 to 6/30/2020.

Everything you need to know can be found on our Annual Reporting: Household Hazardous Waste Collection Information page.

If you don't already have one, you will need a WebPass to access the database. You can Create or Edit your WebPass on our WebPass Home page.

I expect there have been many staffing changes and as this email goes out and gets bounced back from those that are now 'Undeliverable', I will reach out to find out who will be your new Jurisdiction Contact(s). Repeatedly.

If you have questions or concerns, please send an email to Form303@CalRecycle.ca.gov. Our in-office attendance is intermittent, and your emails can be readily addressed/responded to remotely whereas phone calls are a bit more challenging.

We will not be closing the reporting period on the Statutorily mandated date of 10/1. The difficulties in reporting and aggregating your collections in this most interesting of years' will guide when to close the reporting period.

Your input and questions are welcome. I am available at your convenience,

Russ Carter
Environmental Scientist
Statewide Technical and Analytical Services Branch
Materials Management and Local Assistance Division
1001 I Street, P.O. Box 4025| Sacramento, CA 95814 | 916.341.6507 | Fax 916.319.7459|

To subscribe to or unsubscribe from the Household Hazardous Waste Reporting (Form 303) listserv or other listservs, please go to https://www2.calrecycle.ca.gov/Listservs/. For information on Household Hazardous Waste Reporting (Form 303) rulemaking process, as well as other relevant developments go to https://www.calrecycle.ca.gov/homehazwaste/reporting/.

~
Serial Number: B7RTPT57
Sent On: 06/09/2020 7:32 AM
~

CALIFORNIA
AIR RESOURCES BOARD

Gavin Newsom, Governor
Jared Blumenfeld, CalEPA Secretary
Mary D. Nichols, Chair

Notice of Decision

Project Title: Advanced Clean Truck Regulation **(SCH# 2018052041)**

Project Location: Statewide

Public Meeting Date: June 25, 2020; Agenda Item #20-6-3

Project Description: The Advanced Clean Truck Regulation is a requirement for truck manufacturers to sell zero-emission trucks in California and a one-time requirement for large entities to report about their facilities, types of truck services used, and fleet of vehicles.

This notice is to advise that the California Air Resources Board (CARB or Board), as the lead agency, approved the project, identified above, on June 25, 2020 and has made the following determinations.

CARB prepared and certified an environmental analysis (EA) for the project in accordance with the requirements of CEQA and its certified regulatory program. (Cal. Code Regs., tit. 14, §15251, subd, (d).) The EA, included as an appendix to the Staff Report prepared for the project, concluded the project may result in significant adverse environmental impacts. Mitigation measures were made a condition of approval. A mitigation reporting or monitoring plan was not adopted for this project because CARB lacks the jurisdiction to implement the suggested mitigation measures and made findings in the EA to that effect, consistent with CEQA Guidelines section 15091(a)(2). The Board made CEQA findings pursuant to section 15091 of the CEQA Guidelines and adopted a statement of overriding considerations for this project pursuant to section 15093 of the CEQA Guidelines.

CARB staff prepared written responses to comments received during noticed public comment period that raised significant environmental impacts pertaining to this project. The written responses to these comments are included in the *Response to Comments on the Draft Environmental Analysis for the Advanced Clean Truck Regulation*. Before taking final action on the project, the Board considered written responses to these comments as required by CARB's certified regulations. (Cal. Code Regs., tit. 17 § 60004.2(c)(2).)

This is to certify that the final EA with comments and responses and record of project approval is available to the General Public at the following locations:

https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks

California Air Resources Board
Attn: Board Administration and Regulatory Coordination Unit
1001 I Street
Sacramento, CA 95814

FILED
JUN 30 2020
Resources Agency of California

Certified: Nicole Haven
CARB CEQA Unit

Date: 6/30/2020

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE
ENVIRONMENTAL FILING FEE CASH RECEIPT
DFG 753.5a (01/2002)

Receipt No: **4097**

Date: **4/24/2020**

Invoice Date:

Lead Agency: California Air Resources Board
State Agency of Filing: Department of Fish and Wildlife
Project Title: Advanced Clean Trucks Regulation

Document No: **2018052041**
Deposit No: **2379001361**

California Air Resources Board
1001 I St # 2828
Sacramento, CA 95814

Project Applicant Name
Project Applicant Address:
City, State, Zip

Project Applicant (check appropriate box) ☐ Local Public Agency ☐ School District ☐ Other Special District ☐
☐ State Agency ☑ Private Entity ☐

APPLICABLE FEES:

Environmental Impact Report:		$0.00
Negative Declaration:		$0.00
Application Fee Water Diversion (State Water Resources Control Board Only):		$0.00
Projects Subject to Certified Regulatory Programs		$1,136.50
Lien fee:	$0.00	
Penalty:	$0.00	
County Administrative Fee:		$0.00
☐ Project exempt from fees		$0.00
Total Received		**$1,136.50**

Person receiving payment: Valeirya Kryuchkov, Accounting Officer

2 copies - Project Applicant, DFG/ASB

State of California
AIR RESOURCES BOARD

PUBLIC HEARING TO CONSIDER THE PROPOSED ADVANCED CLEAN TRUCKS REGULATION

Resolution 20-19

June 25, 2020

Agenda Item No.: 20-6-3

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the California Air Resources Board (CARB or Board) to adopt standards, rules, and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, section 39000 of the Health and Safety Code declares that the people of the State of California have a primary interest in the quality of the physical environment in which they live, and that this physical environment is being degraded by the waste and refuse of civilization polluting the atmosphere, thereby creating a situation which is detrimental to the health, safety, welfare, and sense of well-being of the people of California;

WHEREAS, section 39003 of the Health and Safety Code charges the Board with the responsibility for systematically attacking the serious air pollution problem caused by motor vehicles;

WHEREAS, section 39500 of the Health and Safety Code designates CARB as the agency responsible for control of emissions from motor vehicles;

WHEREAS, in section 39650 of the Health and Safety Code, the Legislature declares that it is the public policy of the state that emissions of toxic air contaminants should be controlled to levels which prevent harm to the public health;

WHEREAS, sections 39655, 39658 and 39659 of the Health and Safety Code authorizes the Board to establish airborne toxic control measures for toxic air contaminants;

WHEREAS, section 39667 of the Health and Safety Code authorizes the Board to regulate emissions of toxic air contaminants from vehicular sources;

WHEREAS, section 43000 of the Health and Safety Code declares that dependence on petroleum based fuels in motor vehicles not only contributes to substantial degradation of air quality and risk to public health, but also impedes the state's

progress toward petroleum use reduction, and that the State has a responsibility to establish uniform procedures applicable to all motor vehicles for compliance with vehicle emissions standards which control and eliminate emissions of air pollutants from motor vehicles, which is the primary cause of air pollution in many parts of the state;

WHEREAS, in section 43000.5 of the Health and Safety Code, the Legislature declares that the burden for achieving needed reductions in vehicle emissions should be distributed equitably among various classes of vehicles, and the Board should take immediate action to implement both short- and long-range programs of across-the-board reductions in vehicle emissions and smoke;

WHEREAS, sections 43013, 43100, 43101, 43102, and 43104 of the Health and Safety Code authorize the Board to adopt emission standards, in-use performance standards, and test procedures to control air pollution caused by motor vehicles;

WHEREAS, section 43018 of the Health and Safety Code authorizes the Board to achieve the maximum degree of emission reduction possible from vehicular and other mobile sources in order to accomplish the attainment of the state standards for ambient air quality at the earliest practicable date;

WHEREAS, section 43105 of the Health and Safety Code provides that no new motor vehicle or engine required under Part 5 of Division 26 of the Health and Safety Code to meet emission standards shall be sold to the ultimate purchaser, ordered or delivered for sale to the ultimate purchaser, or registered in this state, if the manufacturer has violated emission standards or test procedures and has failed to take corrective action, which may include recall of vehicles or engines, specified by the Board in accordance with its regulations; and provides that the Board shall establish procedures for determining, and the facts constituting, compliance or failure of compliance pursuant to section 43105;

WHEREAS, section 43106 of the Health and Safety Code provides that each new motor vehicle or engine required under Part 5 of Division 26 of the Health and Safety Code to meet the emission standards established pursuant to section 43101 shall be, in all material respects, substantially the same in construction as the test motor vehicle or engine that has been certified by the Board in accordance with Article 1, Chapter 2, Part 5, Division 26 of the Health and Safety Code;

WHEREAS, the Legislature has enacted the California Global Warming Solutions Act of 2006 (Assembly Bill 32 (AB 32); Stats 2006, chapter 488, Health and Safety Code section 38500 *et seq.*), which declares that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California, and requires a comprehensive multi-year program to reduce California's greenhouse gas (GHG) emissions to 1990 levels by 2020, and to maintain the emission levels and continue reductions thereafter;

WHEREAS, AB 32 added section 38501 to the Health and Safety Code, which expresses the Legislature's findings that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California, and the Legislature's intent that CARB coordinate with State agencies and consult with the environmental justice community, industry sectors, business groups, academic institutions, environmental organizations, and other stakeholders in implementing AB 32, and design emissions reduction measures to meet the statewide emissions limits for GHGs in a manner that minimizes costs and maximizes benefits for California's economy, maximizes additional environmental and economic co-benefits for California, and complements the State's efforts to improve air quality;

WHEREAS, section 38510 of the Health and Safety Code designates CARB as the State agency charged with monitoring and regulating sources of GHG emissions that cause global warming in order to reduce such emissions;

WHEREAS, section 38505 of the Health and Safety Code defines "greenhouse gas" (GHG) or "greenhouse gases" for purposes of Division 25.5 of the Health and Safety Code as including all of the following gases: carbon dioxide (CO2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride;

WHEREAS, section 38560 of the Health and Safety Code directs the Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions from sources or categories of sources;

WHEREAS, Senate Bill 32, statutes of 2016, chapter 249 (SB 32), was signed into law to expand upon the California Global Warming Solutions Act of 2006 to reduce GHG emissions to 40 percent below the 1990 level by 2030;

WHEREAS, section 38566 of the Health and Safety Code directs the Board to adopt rules and regulations to achieve the maximum technologically feasible and cost effective GHG emissions reductions authorized by this division, the state Board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide GHG emissions limit no later than December 31, 2030;

WHEREAS, in recognition of the devastating impacts of climate change emissions on California, Executive Order S-3-05 established the following GHG emission targets:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emission 80 percent below 1990 levels;

WHEREAS, Executive Order B-16-12 reaffirmed a 2050 GHG emission reduction target for the transportation sector of 80 percent below 1990 levels;

WHEREAS, Executive Order B-30-15 established a 2030 GHG emission reduction target of 40 percent below 1990 levels, in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050;

WHEREAS, Executive Order B-48-18, established a goal of at least 5 million zero-emission vehicles on California roads by 2030;

WHEREAS, Executive Order B-55-15 established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and maintain net negative emissions thereafter;

WHEREAS, Governor Gavin Newsom in Executive Order N-19-19 directed CARB to consider strengthening existing or adopting new regulations to achieve the necessary greenhouse gas reductions from within the transportation sector;

WHEREAS, CARB's 2016 Mobile Source Strategy identifies several potential technology advancing measures needed to achieve California's air quality and climate goals, including measures to accelerate the deployment of zero-emission vehicles in last-mile delivery applications;

WHEREAS, the 2016 Sustainable Freight Action Plan directed state agencies' actions to accelerate use of clean vehicle and equipment technologies and fuels for freight through targeted introduction of zero and near-zero emission technologies;

WHEREAS, in March 2017, the Board adopted the State Strategy for the State Implementation Plan, which identifies the deployment of zero-emission transportation as a necessary component for California to achieve established near and long- term air quality and climate mitigation targets;

WHEREAS, in December 2017, the Board adopted California's 2017 Climate Change Scoping Plan, which recommends transition to zero-emission vehicles in the transportation sector as a measure to meet the State's GHG emissions and air quality goals and enable long-term de-carbonization of the transportation sector;

WHEREAS, Senate Bill 350, statutes of 2015, chapter 547 directed the California Public Utility Commission to take actions to support widespread transportation electrification;

WHEREAS, the California Public Utility Commission unanimously approved three large-scale medium- and heavy-duty transportation electrification programs to install infrastructure needed to support medium and heavy-duty electric vehicles operated by fleets. Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric have been authorized to spend $236 million, $343 million, and $107 million, respectively over a five year period;

WHEREAS, the Low Carbon Fuel Standard (LCFS) regulation provides an opportunity for commercial fleets to generate credits for dispensing electricity or hydrogen, with a low-carbon intensity, into zero-emission vehicles. The credit value can offset some or all of the fuel cost and improves the total cost of ownership for zero-emission vehicles while stimulating the low carbon fuel market;

WHEREAS, dozens of truck and bus manufacturers exclusively sell zero-emission trucks and buses, and nearly all of the established medium- and heavy-duty vehicle manufacturers have announced plans to sell a wide range of zero-emission vans, trucks and buses in the United States;

WHEREAS, information collected from large entities and fleets is necessary to identify appropriate flexibilities and ensure a level playing field in developing fleet requirements and to accelerate the market with future zero-emission truck fleet rules;

WHEREAS, since 2016, CARB staff has held eight workshops, five workgroup meetings, and numerous individual meetings with stakeholders to provide information to the public and solicit feedback;

WHEREAS, on March 23, 2017, CARB adopted the Revised Proposed 2016 State Strategy for the State Implementation Plan (State SIP Strategy) and transmitted it to U.S. EPA for inclusion in the California SIP;

WHEREAS, the State SIP Strategy was developed to provide the emission reductions necessary to meet the national air quality standards throughout the State;

WHEREAS, the State SIP Strategy includes a commitment to develop and bring to the Board for consideration a measure entitled, "Last Mile Delivery" (now known as Advanced Clean Trucks) to achieve oxides of nitrogen (NOx) emission reductions throughout the State;

WHEREAS, the Advanced Clean Trucks regulation fulfills the State commitment to propose the measure for Board consideration and provides emission reductions toward the State's aggregate emission reduction commitment;

WHEREAS, the Initial Statement of Reasons (ISOR) presents, among other things, the rationale and basis for the Proposed Advanced Clean Trucks Regulation, as set forth in Appendix A to the ISOR released to the public on October 22, 2019, that identifies the data, reports, and information relied upon for these proposed regulations;

WHEREAS, the ISOR and proposed regulatory language and other required documents were made available to the public for comment for at least 45 days prior to the public hearing to consider the proposed regulatory action;

WHEREAS, the notice released to the public on October 22, 2019, stated that, if adopted by CARB, CARB plans to submit the proposed regulatory action to the U.S. EPA for approval as a revision to the SIP required by the federal Clean Air Act (CAA);

WHEREAS, CARB's regulatory program for considering the environmental impacts of the proposed adoption, approval, amendment, or repeal of standards, rules, regulations, or plans has been certified by the Secretary for Natural Resources under Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA; California Code of Regulations, title 14, section 15251(d)), and CARB conducts its CEQA review according to this certified program (California Code of Regulations, title 17, sections 60000-60008);

WHEREAS, CARB prepared a draft environmental analysis under its certified regulatory program for the proposed regulation entitled *Draft Environmental Analysis Prepared for the Proposed Advanced Clean Trucks Regulation* (Draft EA), and circulated it as Appendix D to the Staff Report for 45 days from October 22, 2019, through December 9, 2019;

WHEREAS, the environmental analysis concluded that:

- Implementation of the proposed regulation has the potential to result in beneficial impacts to long-term energy demand, long-term air quality emissions, and long-term GHG emissions;

- Implementation of the proposed regulation has the potential to result in less than significant impacts to: odor impacts, short-term energy demand, short-term GHG emissions, short-term impact on mineral resources, population, employment, housing, public services, and recreation; and

- Implementation of the proposed regulation has the potential to result in potentially significant and unavoidable adverse impacts to: aesthetics, conversion of agricultural and forest resources, short-term air quality, biological resources, cultural resources, geology and soil, hazardous materials and impacts, hydrology and water quality, long-term mineral resources, noise, traffic and transportation, and demand for utility services.

WHEREAS, on December 12, 2019, the Board conducted a public hearing on the proposed Advanced Clean Trucks regulation and the Draft EA;

WHEREAS, following the public hearing staff considered written comments submitted during the public review period and whether to make any additional appropriate conforming modifications available for public comment for at least 15 days, pursuant to Government Code section 11346.8;

WHEREAS, following the public hearing, modified regulatory language and supporting documentation were circulated for a 30-day public comment period, with the changes

to the originally proposed text clearly indicated, according to the provisions of Government Code, section 11340.85, and California Code of Regulations, title 1, section 44, from April 28, 2020, through May 28, 2020;

WHEREAS, staff evaluated all comments received during the public comment periods, including comments on the Draft EA, in order to prepare written responses to EA comments as required by CARB's certified regulations at California Code of Regulations, title 17, sections 60000-60008 and Government Code section 11346.9(a);

WHEREAS, staff prepared written responses to comments on the EA in a document entitled *Response to Comments on the Environmental Analysis Prepared for the Advanced Clean Trucks Regulation* (Response to EA Comments);

WHEREAS, pursuant to CARB's certified regulations at California Code of Regulations, title 17, sections 60000-60008 and Government Code section 11346.9(a), the Executive Officer presents to the Board the Final EA, along with the Response to EA Comments, for consideration for approval, and the finalized regulation for consideration for adoption;

WHEREAS, staff posted on the rulemaking page the Final EA, which includes minor revisions, and the Response to EA comments, on June 23, 2020;

WHEREAS, prior to the duly noticed public hearing held on June 25, 2020, staff presented the Final EA and the Response to EA Comments to the Board for consideration;

WHEREAS, a public hearing and other administrative proceedings have been held according to the provisions of Chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code; and

WHEREAS, in consideration of the ISOR, written comments, and public testimony, the Board finds that:

A new approach for requiring major truck manufacturers to sell zero-emission trucks in California and for large entities to report facility and vehicle use information is appropriate;

The Advanced Clean Trucks regulation contains elements to ensure a successful and orderly transition to a larger zero-emission transportation sector;

The Advanced Clean Trucks regulation is necessary for meeting the State's air quality goals and requirements to reduce NOx and PM emissions from on-road heavy-duty vehicles as prescribed by the revised 2016 State Implementation Plan.

The Advanced Clean Trucks regulation is necessary for meeting the State's climate goals by reducing GHG emissions as prescribed by legislation and several California Climate Executive Orders.

The Advanced Clean Trucks regulation will not have a significant statewide adverse economic impact that would directly affect businesses, including the ability of California businesses to compete with businesses in other states, or on represented private persons;

No alternative considered to date, or that has otherwise been identified and brought to the attention of the Board, would be more effective in carrying out the purpose for which the regulation is proposed, would be as effective and less burdensome to affected private persons than proposed regulation, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law of the proposed amendments, upon considering, among other things, the standardized regulatory impact analysis of the proposed amendments and the specific benefits of the proposed amendments that were identified in the Notice of this action; and

The proposed regulation and the amendments are consistent with the Board's environmental justice policies and do not disproportionately impact people of any race, culture, or income.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby certifies that the Final EA was completed in compliance with CARB's certified regulatory program to meet the requirements of CEQA, reflects the agency's independent judgment and analysis, and was presented to the Board whose members reviewed and considered the information therein before taking action to approve the regulations and the amendments.

BE IT FURTHER RESOLVED that the Board approves the Response to EA Comments.

BE IT FURTHER RESOLVED that in consideration of the Final EA, the Response to EA Comments, and the entirety of the record, the Board adopts the Findings and Statement of Overriding Considerations, set forth in Attachment A to this resolution.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby adopts sections 1963, 1963.1, 1963.2, 1963.3, 1963.4, 1963.5, 2012, 2012.1, and 2012.2, title 13, California Code of Regulations.

BE IT FURTHER RESOLVED that the adopted regulatory text may be further revised with grammatical or other non-substantial changes, which will be added to the rulemaking record and indicated as such.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to determine if additional sufficiently related modifications to the regulation are appropriate, and that if no additional modifications are appropriate, the Executive Officer shall take CARB's final step for final approval of the Board-approved regulations, as set forth in Appendix A, through submittal of the Board-approved rulemaking package to the Office of Administrative Law. If the Executive Officer determines that additional sufficiently related substantial modifications are appropriate, the modified regulatory language shall be made available for public comment, with any additional supporting documents and information, for at least 15 days. The Board delegates to the Executive Officer the authority to both (1) either approve or disapprove proposed changes in regulatory language under Government Code section 11346.8(c), and (2) conduct any appropriate further environmental review associated with such changes, consistent with the Board's Certified Regulatory Program regulations, at California Code of Regulations, title 17, sections 60000-60008, for those sufficiently related substantial modifications. Alternatively, rather than taking action on the proposed modifications, the Executive Officer may instead present the modifications, and any appropriate further environmental review associated with the modifications, to the Board for further consideration, if the Executive Officer determines further Board consideration is warranted.

BE IT FURTHER RESOLVED that if there is a possibility that any further modifications to the regulation may affect the conclusion of the environmental analysis, the Executive Officer shall prepare and circulate any additional environmental analysis to the extent required by the Board's regulations at California Code of Regulations, title 17, sections 60000-60008, and prepare written responses to any comments received raising significant environmental issues if required by the level of additional environmental analysis, to present to the Board for approval along with the final regulation, if the Executive Officer decides Board action is warranted to approve the modifications.

BE IT FURTHER RESOLVED that the Board hereby determines, pursuant to section 209 of the Federal Clean Air Act, that the requirements related to the control of emissions adopted as part of the amendments to the regulations adopted herein are, in the aggregate, at least as protective of public health and welfare as applicable federal standards, that California needs the adopted standards to meet compelling and extraordinary conditions of high concentrations of people and motor vehicles, vulnerability to climate change, and the geographic and climate conditions of the state, and that the adopted requirements are consistent with the provisions of sections 202(a) of the Clean Air Act.

BE IT FURTHER RESOLVED that the Executive Officer shall, upon adoption, forward the regulations to the Environmental Protection Agency with a request for a waiver or confirmation that the regulations are within the scope of an existing waiver of federal preemption pursuant to section 209(b) of the Clean Air Act, as appropriate.

BE IT FURTHER RESOLVED that CARB staff ensure that the Advanced Clean Trucks regulation, the proposed Low-NOx Omnibus rulemaking, and the proposed Zero-Emission Fleet Rules complement each other to ensure maximum emission reductions

from the medium- and heavy-duty sector. The goal of these regulations in combination is to transition California's medium-and heavy-duty fleet to zero-emission everywhere feasible and the cleanest possible combustion everywhere else.

BE IT FURTHER RESOLVED that CARB staff continue to take steps to determine how to best achieve a zero-emission California fleet of medium- and heavy-duty vehicles by 2045 everywhere feasible with an earlier transition for certain market segments, including a goal of:

- Drayage trucks, last mile delivery, and government fleets: 100 percent zero-emission vehicle fleets by 2035
- Refuse trucks and local buses: 100 percent zero-emission vehicle fleets by 2040
- Utility fleets: 100 percent zero-emission capable vehicles by 2040

BE IT FURTHER RESOLVED that CARB develop supporting regulations, with a goal for Board consideration in 2021, to ensure that fleets, businesses, and public entities that own or direct the operation of medium- and heavy-duty vehicles in California will purchase and operate zero-emission vehicles on a schedule that is consistent with this manufacturer rule and achieves a smooth transition to a zero-emission vehicle fleet by 2045 everywhere feasible. CARB shall ensure these upcoming regulations shall emphasize emissions reductions within disadvantaged communities to the maximum extent feasible.

BE IT FURTHER RESOLVED that CARB recognizes the importance of identifying and committing additional resources to addressing the need for infrastructure and supporting actions to make a full transition to a zero-emission transportation system. For that reason, CARB is committed to working with our sister state agencies, including the California Energy Commission, the California Public Utilities Commission, and the Governor's Office of Business Development as well as utilities, local permitting agencies, and fleets to expand infrastructure for the transition to zero-emission medium- and heavy-duty technologies.

BE IT FURTHER RESOLVED that CARB recognizes the importance of identifying and committing additional resources to addressing the need for workforce development and training associated with a transition to a zero-emission fleet. CARB recognizes that state investments that support California workers can expand the benefits of the regulation, and deliver much-needed jobs training and employment opportunities to communities across the state. For that reason, CARB is committed to working with our sister state agencies, such as the California Workforce Development Board and Employment Development Department, to invest in workforce development and training in the operation and maintenance of zero-emission medium- and heavy-duty vehicle technologies. CARB staff's efforts in this area will seek to leverage, to the maximum extent possible, existing and scalable curriculums already utilized by early adopters of zero-emission vehicles.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to submit the Advanced Clean Trucks regulation and other appropriate supporting documentation to U.S. EPA for inclusion in the SIP.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to work with U.S. EPA and take appropriate action to resolve any completeness or approvability issues that may arise regarding the SIP submission.

BE IT FURTHER RESOLVED that the Board authorizes the Executive Officer to include in the SIP submittal any technical corrections, clarifications, or additions that may be necessary to secure U.S. EPA approval.

BE IT FURTHER RESOLVED that the Board hereby certifies pursuant to 40 CFR, section, 51.102, that the Advanced Clean Trucks regulation was adopted after notice and public hearing as required by 40 CFR, section 51.10.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to finalize the Final Statement of Reasons, submit the completed rulemaking package to the Office of Administrative Law, and transmit the Notice of Decision with the Response to EA Comments to the Secretary of the Natural Resources Agency for posting.

I hereby certify that the above is a true and correct copy of Resolution 20-19 as adopted by the California Air Resources Board.

/s/

Ryan Sakazaki, Board Clerk

Resolution 20-19

June 25, 2020

Identification of Attachments to the Board Resolution

Attachment A: Findings and Statement of Overriding Considerations, released to the public at the June 25, 2020, CARB hearing

ATTACHMENT A

FINDINGS and STATEMENT OF OVERRIDING CONSIDERATIONS

Introduction

The California Air Resources Board (CARB), as the lead agency for the *Proposed Advanced Clean Trucks Regulation* (Proposed Project), prepared a Draft Environmental Analysis (EA) in accordance with its certified regulatory program (Cal. Code Regs., tit. 17, §§ 60000 – 60008) to comply with the requirements of the California Environmental Quality Act (CEQA) (Pub. Resources Code, §21000, *et seq.*). The Draft EA, entitled *Draft Environmental Analysis prepared for the Proposed Advanced Clean Trucks Regulation*, included as Appendix D to the Staff Report (Initial Statement of Reasons) for the Proposed Project, provided an analysis of the potential environmental impacts associated with the Proposed Project. Following circulation of the Draft EA for a 45-day public review and comment period from October 22, 2019 through December 9, 2019, CARB prepared the *Final Environmental Analysis prepared for the Proposed Advanced Clean Truck Regulation* (Final EA) which includes minor revisions to the Draft EA. While minor modifications have been made to the EA to ensure it reflects the Proposed Project as accurately as possible, these changes merely clarify, amplify, or make insignificant modifications to the otherwise-adequate Draft EA. In general, the modifications to the Proposed Project expand the scope by increasing the number of zero-emission vehicles sold in California, which will in turn increase the environmental benefits related to greenhouse gas reductions and air quality improvements. The Draft EA's findings, overall significance conclusions, mitigation measures and alternatives adequately address the environmental review for the proposed modifications. Therefore, there is no significant new information that would require the EA to be recirculated. The Final EA was posted on CARB's webpage on June 23, 2020.

This statement of findings and overriding considerations was prepared to comply with CEQA's requirement to address the environmental impacts identified in the Final EA. (Pub. Resources Code, §§ 21081, 21081.6, Cal. Code Regs, tit. 14, §§ 15091, 15093.) The Final EA is based on the expected compliance responses of the regulated entities covered by the Proposed Project. Although the policy aspects and requirements of the Proposed Project do not directly change the physical environment, there are potential indirect physical changes to the environment that could result from reasonably foreseeable actions undertaken by entities in response to the Proposed Project. These indirect impacts are the focus of the programmatic-level impacts analysis in the Final EA.

Collectively, across all categories, the Final EA concluded that the reasonably foreseeable compliance responses associated with the Proposed Project could result in the following short-term and long-term impacts: beneficial impacts to energy demand, and greenhouse gases; less than significant impacts, or no impacts, to air quality, energy demand, greenhouse gases, land use planning, mineral resources, population and housing, public service, and recreation; and potentially significant [indirect/secondary] adverse impacts to aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality,

land use planning, mineral resources, noise, transportation and traffic, and utilities and service systems. The potentially significant and unavoidable adverse impacts are disclosed for both short-term, construction-related activities and long-term operational activities, which is why some resource areas are identified above as having both beneficial or less-than-significant impacts and potentially significant impacts.

CARB's certified regulatory program requires that before adoption of an action for which significant adverse environmental impacts have been identified during the review process, CARB consider feasible mitigation measures and alternatives that could substantially reduce the impacts. (Cal. Code Regs, tit. 17, §60004.2.) CEQA places the burden on the approving agency to affirmatively show that it has considered feasible mitigation and alternatives that can lessen or avoid identified impacts through a statement of findings for each identified significant impact. (Pub. Resources Code, §21081.) CEQA Guidelines section 15091 provides direction on the content of the statement of findings. That section states that one or more of the following findings should be identified for each impact:

- Changes or alterations have been required in, or incorporated into, such projects which avoid or substantially lessen the significant environmental effect as identified in the final environmental impact report.

- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency, or can and should be adopted by such other agency.

- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report.

The potential adverse impacts identified in this programmatic level EA are potential indirect impacts associated with the compliance responses reasonably foreseeable in response to the Proposed Project based on currently available information. The ability to determine site- or project-specific impacts of projects carried out by third parties and the authority to require feasible mitigation lies with those agencies with authority to approve such actions, e.g. local permitting authorities in city or county governments and local air districts. CARB does not have the ability to determine with any specificity the project level impacts, nor the authority to require project-level mitigation in approving the Proposed Project, as discussed in the findings below.

An agency may approve a project with unavoidable (unmitigated) adverse environmental impacts. When doing so, CEQA requires the agency to make a statement in the record of its views on the ultimate balancing of the merits of approving the project despite the environmental impacts in a "statement of overriding considerations" (Pub. Resources Code, §21081(b); Cal. Code Regs, tit. 14, §15093.) The following presents the CARB Board's (Board) statement of findings for each significant adverse impact identified in the Final EA, accompanied by a brief explanation, and its statement of overriding considerations.

STATEMENT OF FINDINGS

The Board has independently reviewed and considered the entire record, including the information contained in the Final EA, public testimony, written comments received, and the written responses to environmental comments, all of which are hereby incorporated by reference. The Board makes the following written findings for each significant adverse impact identified, accompanied by a brief explanation of the rationale for each finding. These findings are supported by substantial evidence in the record.

Aesthetics

Finding and Explanation

The Final EA found that the reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant short-term construction-related impacts and long-term operational impacts on aesthetic resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA includes Mitigation Measures 1-1 and 1-2, which identify existing statutes and regulations and operating permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 1-1 and 1-2 are within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 1-1 and 1-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Impacts may be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval at a later stage. But at this stage, the Board lacks full details on the design of potential programs and associated required mitigation. Consequently, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Agriculture and Forest Resources

Finding and Explanation

The Final EA found that the reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant impacts on agriculture and forest resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA includes Mitigation Measure 2-1, which identifies existing statutes and regulations and construction and operating permit requirements as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 2-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 2-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Impacts may be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval at a later stage. But at this stage, the Board lacks full details on the

design of potential programs and associated required mitigation. Consequently, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Air Quality

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant short-term construction-related impacts on air quality. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA included Mitigation Measure 3-1, which identifies existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 3-1 within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 3-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource

associated with the proposed actions in the Proposed Project would be potentially significant and unavoidable. This impact potential is overridden by the project's benefits as set forth in the statement of overriding considerations.

Biological Resources

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant impacts on biological resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA included Mitigation Measures 4-1 and 4-2, which identify existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 4-1 and 4-2 are within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 4-1 and 4-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

The Final EA determined that it is unknown where and under which jurisdiction individual projects may be located. Thus, the authority to determine project-level impacts and applicable regulations lies with the permitting agency for individual projects. This programmatic analysis and CARB's lack of authority over certain aspects of project-level development do not allow CARB to require project-specific mitigation or guarantee its implementation, resulting in an

inherent uncertainty in the degree of mitigation ultimately implemented to reduce the potentially significant impacts.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Project would be potentially significant and unavoidable. This impact potential is overridden by the project's benefits as set forth in the statement of overriding considerations.

Cultural Resources

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant impacts on cultural resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA included Mitigation Measure 5-1, which identifies existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 5-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 5-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, there is inherent

uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

The Final EA determined that it is unknown where and under which jurisdiction individual projects may be located. Thus, the authority to determine project-level impacts and applicable regulations lies with the permitting agency for individual projects. This programmatic analysis and CARB's lack of authority over certain aspects of project-level development do not allow CARB to require project-specific mitigation or guarantee its implementation, resulting in an inherent uncertainty in the degree of mitigation ultimately implemented to reduce the potentially significant impacts.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Geology and Soils

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant impacts on geology and soil resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA included Mitigation Measure 7-1, which identifies existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 7-1 is within the responsibility and jurisdiction of other public agencies, and that the

requirements and practices in Mitigation Measure 7-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Hazards and Hazardous Materials

Finding and Explanation

The Final EA found that the reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant short-term construction-related and long-term operational-related impacts on hazards and hazardous material resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA includes Mitigation Measures 9-1 and 9-2, which identify existing statutes and regulations and construction and operating permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 9-1 and 9-2 is within the responsibility and jurisdiction of other public agencies, and that the requirements

and practices in Mitigation Measures 9-1 and 9-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource is inherently uncertain.

Impacts may be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval at a later stage. But at this stage, the Board lacks full details on the design of potential programs and associated required mitigation. Consequently, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Hydrology and Water Quality

Finding and Explanation

The Final EA found reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant impacts on hydrology and water quality resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA included Mitigation Measures 10-1 and 10-2, which identify existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 10-1 and 10-2 are within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 10-1 and 10-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the

identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Land Use and Planning

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant impacts on land use and planning resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

Construction and operation of new manufacturing and recycling facilities may require the conversion of non-industrial land uses to industrial land uses. Potential environmental effects associated with land use change on agriculture and forestry, biology, geology and soils, and hydrology and their related mitigation measures are discussed in further detail under their respective impact discussions.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to land use associated with the proposed actions in the Proposed Project would be potentially significant

and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Mineral Resources

Finding and Explanation

The Final EA found that the Proposed Project could result in impacts to mineral resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA included Mitigation Measure 12-1, which identifies existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 12-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 12-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Noise

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant impacts on noise resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA included Mitigation Measures 13-1 and 13-2, which identify existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 13-1 and 13-2 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 13-1 and 13-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Transportation and Traffic

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant impacts on transportation and traffic resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The Final EA included Mitigation Measures 17-1 and 17-2, which identify existing statutes and regulations and construction permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 17-1 and 17-2 are within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 17-1 and 17-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Utilities and Service Systems

Finding and Explanation

The Final EA found that the reasonably foreseeable actions associated with implementation of the Proposed Project could result in potentially significant long-term operational impacts on utilities and service systems resources. Implementation of the Proposed Project could result in an increase in manufacturing and associated facilities to increase the supply of zero-emission vehicles (ZEVs), along with construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations and associated increase in hydrogen fuel supply and transportation. Increased deployment of ZEVs would result in a corresponding decrease in deployment of gasoline and diesel fueled vehicles. Likewise, increased deployment of ZEVs would result in an increase in the production of electricity and hydrogen fuel, reduce rates of oil and gas extraction, and result in associated increases in lithium and platinum mining and exports from source countries or other states. This could result in increased rates of disposal of lithium batteries and hydrogen fuel cells; however, disposal would need to comply with California law, including but not limited to California's Hazardous Waste Control Law and implementing regulations. For lithium-ion batteries, it is anticipated they still have a useful life at the end of vehicle life, and are likely to be repurposed for a second life. To meet an increased demand of refurbishing or reusing batteries and fuel cells, new facilities or modifications to existing facilities could be constructed to accommodate recycling activities. Fleet turnover largely would be unaffected since the regulation is implemented at the time of normal vehicle purchase.

The EA includes Mitigation Measure 18-1, which identifies existing statutes and regulations and construction and operating permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 18-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 18-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource is inherently uncertain.

Impacts may be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval at a later stage. But at this stage, the Board lacks full details on the design of potential programs and associated required mitigation. Consequently, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Project would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Cumulatively Considerable Impacts

The applicable plan containing the appropriate summary of projections for considering cumulative impacts of the Proposed Project is the 2016 State SIP Strategy. The analysis of cumulative impacts for the Proposed Project included a summary of the cumulative impacts found for each resource area in this plan, and a conclusion regarding whether the Proposed Project could result in a cumulatively considerable contribution to an existing significant cumulative impact.

The EA concluded the Proposed Project could result in a cumulatively considerable contribution to significant cumulative impacts to aesthetics, agriculture and forest resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, noise, transportation and traffic, and utilities and service systems. While suggested mitigation is provided within the respective resource areas of the EA analyses that could address the contribution of the Proposed Project to each of these potentially cumulatively considerable impacts, the Board finds that because these adverse impacts are potential indirect impacts associated with the compliance responses of covered entities, the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible.

Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to these resources. Consequently, while cumulative impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the cumulatively considerable contribution of the Proposed Project to existing significant cumulative impacts to aesthetics, agriculture and forest resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, noise, transportation and traffic, and utilities and service systems to be potentially significant and unavoidable.

Findings on Alternatives to the Project

In addition to the No-Project Alternative, the EA considered a reasonable range of potentially feasible alternatives that could potentially reduce or eliminate the significant adverse environmental impacts associated with the Proposed Project, while accomplishing most of the basic project objectives.

The Board finds the alternatives analysis is sufficient to inform the Board and the public regarding the tradeoffs between the degree to which the alternatives could reduce environmental impacts and the corresponding degree to which the alternatives could achieve the project objectives.

Based upon a full evaluation of the alternatives, and the entirety of the record, the Board finds that adoption and implementation of the Proposed Project is the most desirable, feasible, and appropriate action for achieving the objectives of the project, and the Board rejects the other alternatives because they either fail to meet most project objectives, or are infeasible based on consideration of the relevant factors identified in the EA and briefly described below. Please see the Final EA for more in-depth discussion and analysis regarding project alternatives.

Alternative 1: No Project Alternative –

Alternative 1 in the EA describes a reasonably foreseeable scenario if CARB did not approve the Proposed Project. Under the No Project Alternative, the Proposed Project would not occur. Existing conditions would continue, and truck sales would continue as they have been to date, resulting in no development of a ZE truck market in California.

The Board finds that the No-Project Alternative would fail to meet most of the project objectives listed in Chapter 2 of the Final EA. Under the No Project Alternative, criteria pollutant and GHGs emissions would not decrease. The No Project Alternative would also fail to fulfill either the AB 1493 mandate to achieve maximum feasible GHG reductions or the AB 32 mandate to reduce GHG emissions to 1990 levels by 2020. The No Project Alternative would not result in energy savings. The No Project Alternative would not help attain the California and national ambient air quality standards, and it would fail to ensure all Californians live, work, and play in a healthful environment free from harmful exposure to air pollution. For these reasons, the Board rejects this alternative.

Alternative 2: Less Stringent ZEV Sales Requirement –

This alternative includes a less stringent ZEV sales requirement than the Proposed Project. Under this alternative, three percent of regulated manufacturer sales would need to be ZEVs in Class 2b-7 ramping up to 15 percent in 2030. Class 2b-3 pickup trucks and all Class 8 vehicles would be excluded from the ZEV sales requirement. This alternative would result in fewer ZEV sales compared to the Proposed Project.

The Board finds that emissions reduction achieved under this alternative would not be as great as the reductions that would be achieved under the Proposed Project (Objective 2, 5, and 9). The less stringent ZEV sales requirement will result in less emissions reduction benefits compared with the Proposed Project and no new GHG reductions because the reductions are already attributed to the CA Phase 2 GHG regulation. In addition, the less stringent ZEV sales requirement may not develop a self-staining ZE truck market (Objective 1, 6, 8, and 10) This could prevent California from achieving the GHG reduction goal of AB 32 (Objective 3), particularly if CARB cannot develop other programs or regulations to reduce GHG emissions (Objective 4 and 7). As such, this alternative would partially achieve some of the project objectives identified under the Proposed Project, but not to the same degree as the Proposed Project. For these reasons, the Board rejects this alternative.

Alternative 3: More Stringent in Early Years ZEV Sales Requirement –

This alternative includes a more stringent ZEV sales requirement in the early years of the regulatory timeframe than the Proposed Project. Under this alternative, 15 percent of

regulated manufacturer sales would need to be ZEVs in class 2b-8 ramping up to 40 percent in 2030. No vehicle types are excluded from the ZEV sales requirement in this scenario.

The Board finds that this alternative could meet objectives related to more emission reductions (Objective 2, 5, and 9) and health benefits (Objective 11) from early years; however, it also bears some risks. First, it moves all infrastructure cost earlier which could be too much of a financial burden for fleets or manufacturers (Objective 12). Due to the increased ZEV percentage sales requirements, fleets and utilities will need to significantly accelerate the purchase or ZEVs and the rollout of ZEV infrastructure. Even though this alternative results in more ZEVs deployed than the proposed ACT regulation (Objective 1, 6, 8, and 10) and would result in more NOx and $PM_{2.5}$ emission reductions (Objective 4 and 7), having a more aggressive timeframe raises questions about feasibility for manufacturers, fleets, and utilities to comply with its requirements in its initial years and makes the emissions reductions less cost effective. For these reasons, the Board rejects this alternative.

Alternatives Considered but Rejected –

Four additional alternatives were considered during development of the alternatives to the Proposed Project. The first was "Balanced Heavy-Duty Truck and Bus Low NOx Credit Policy Approach", the second was "Total Truck Population ZEV Sales Requirement", the third was "Fleet Rule Requirement" and the fourth was "EMA Sector Requirement". The CEQA Guidelines Section 15126.6(c) includes three factors that may be used to eliminate alternatives from detailed consideration in an Environmental Impact Report (EIR): "(i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impact." These alternatives were rejected because they do not meet the most basic of the project objectives or are either infeasible or would not result in additional NOx, PM or GHG emission reductions.

STATEMENT OF OVERRIDING CONSIDERATIONS

CARB expects that many of the significant adverse impacts identified in the EA will be avoided or mitigated; however, since uncertainty exists as to the extent of mitigation that other agencies will require at the site- and project-specific level, the Board is conservatively considering the impacts to be potentially significant and unavoidable. The Board finds that despite the potential for adverse environmental impacts associated with the Proposed Project, other benefits of the proposed actions are determined to be overriding considerations that warrant approval of the Proposed Project and outweigh and override its unavoidable significant impacts. Each benefit set forth below constitutes an overriding consideration warranting approval of the project, independent of the other benefits, despite each and every unavoidable impact. These benefits include:

1. Accelerating the deployment of vehicles that achieve the maximum emissions reduction possible from medium- and heavy-duty vehicles to assist in the attainment of national ambient air quality standards for criteria air pollutants (Health & Safety Code Sections 43000.5(b), 43018(a)).
2. Reducing the State's dependence on petroleum as an energy resource and support the use of diversified fuels in the State's transportation fleet (Health & Safety Code Section 43000(e), California Public Resources Code (PRC) Section 25000.5). In

addition, petroleum use as an energy resource contributes substantially to the following public health and environmental problems: air pollution, acid rain, global warming, and the degradation of California's marine environment and fisheries (PRC Section 25000.5(b), (c)).

3. Decreasing GHG emissions in support of statewide GHG reduction goals by adopting strategies to deploy medium- and heavy-duty zero-emission vehicles (ZEV) in California as identified in the Scoping Plan as "Last Mile Delivery", which was developed to reduce GHG emissions in California, as directed by AB 32. The CARB's 2017 Climate Change Scoping Plan and 2016 Mobile Source Strategy aim to accelerate development and deployment of the cleanest feasible mobile source technologies and to improve access to clean transportation. Implementation of the Proposed Project would also provide further GHG reductions pursuant to AB 1493 (Ch. 200, Stats. of 2002, Pavley).
4. Developing a regulation that is consistent with and meets the goals of the State Implementation Plan (SIP), providing necessary emission reductions from vehicular sources for all of California's nonattainment areas to meet federal ambient air quality standards (Health & Safety Code Sections 39002, 39003, 39602.5, 43000, 43000.5, 43013, 43018).
5. Maintaining and continuing reductions in emissions of GHGs beyond 2020, in accordance with AB 32 (Health & Safety Code Sections 38551(b), 38562, 38562.5, 38566); pursue measures that implement reduction strategies covering the State's GHG emissions in furtherance of California's mandate to reduce GHG emissions to the 1990 level by 2020 and 40 percent below the 1990 level by December 31, 2030.
6. Leading the transition of California's medium- and heavy-duty transportation sector from internal combustion to all electric powertrains.
7. Complementing existing programs and plans to ensure, to the extent feasible, that activities undertaken pursuant to the measures complement, and do not interfere with, existing planning efforts to reduce GHG emissions, criteria pollutants, petroleum-based transportation fuels, and TAC emissions.
8. Incentivizing and supporting emerging zero-emission technology that will be needed to achieve CARB's SIP goals.
9. Achieving emission reductions that are real, permanent, quantifiable, verifiable, and enforceable (Health & Safety Code Sections 38560, 38562(d)(1)).
10. Providing market certainty for zero-emission technologies and fueling infrastructure to guide the acceleration of the development of environmentally superior medium- and heavy-duty vehicles that will continue to deliver performance, utility, and safety demanded by the market.
11. Taking steps to ensure all Californians can live, work, and play in a healthful environment free from harmful exposure to air pollution. Protect and preserve public health and well-being, and prevent irritation to the senses, interference with visibility, and damage to vegetation and property (Health & Safety Code Section 43000(b)) in

recognition that the emission of air pollutants from motor vehicles is the primary cause of air pollution in many parts of the State (Health & Safety Code Section 43000(a)).

12. Spurring economic activity of zero-emission technologies in the medium- and heavy-duty vehicle sectors. Incentivizing innovation that will transition California's economy into greater use of clean and sustainable zero-emission technologies and promote increased economic and employment benefits that will accompany this transition (AB 1493, Section 1(g); Health & Safety Code Section 38501(e)).

LOCATION AND CUSTODIAN OF THE RECORD

The documents and other materials that constitute the record of proceedings on which these findings are based are located at 1001 I Street Sacramento, CA 95814. The custodian for these documents is the California Air Resources Board Legal Office.

REQUEST FOR APPROVAL

To: Matt Henigan, Deputy Director
Materials Management and Local Assistance Division

From: Cara Morgan, Branch Chief
Local Assistance and Market Development

Request Date: June 26, 2020

Decision Subject: Compliance Investigation Results Regarding the Implementation of Mandatory Commercial Recycling (MCR) and/or Mandatory Commercial Organics Recycling (MORe) Programs for the Jurisdictions listed in Attachment 1

Action By: July 21, 2020

Summary of Request:

A key component in maintaining the success of the Mandatory Commercial Recycling (MCR) and Mandatory Organics Recycling (MORe) laws is CalRecycle's role in overseeing how well jurisdictions are implementing these programs. Pursuant to Public Resources Code (PRC) Sections 42649.3(g) and 42649.82((g)(1), CalRecycle reviews each jurisdiction's compliance with these laws as part of the reviews required by PRC Section 41825. Additionally, CalRecycle may evaluate at any time whether a jurisdiction is in compliance with these two laws pursuant to PRC Sections 42649.3(h) and 42649.82(g)(2).

In January 2017, CalRecycle's Director sent a letter to all jurisdictions informing them of the "At Any Time Review" process. The process specifies that if staff identifies a gap in how a jurisdiction is implementing the requirements of either of these laws, then:

- Staff will inform the jurisdiction that a formal Letter of Concern from CalRecycle to the jurisdiction is coming. Once the letter is received, the jurisdiction will have 30 days to respond.
- After CalRecycle receives the jurisdiction's response to the letter, or lack thereof, an agenda item for approval by CalRecycle's MMLA Deputy Director will be presented at a CalRecycle monthly public meeting. The agenda item will indicate one of three potential staff recommendations:
  1. The jurisdiction failed to respond and staff recommends that the jurisdiction be referred to CalRecycle's enforcement unit for consideration of a compliance order; or
  2. The jurisdiction's response to the letter is inadequate and staff recommends that the jurisdiction be referred to the enforcement unit for consideration of a compliance order; or

3. The jurisdiction's response to the letter is adequate and staff recommends that the program be monitored. However, if the same gaps still persist within the next year, an agenda item that refers the jurisdiction to the Jurisdiction Compliance unit for consideration of a compliance order will be presented at CalRecycle's next monthly public meeting.

This Request for Approval addresses Local Assistance and Market Development (LAMD) staff's review finding that 13 jurisdictions have significant gaps in program implementation for MCR and/or MORe. These gaps were determined during LAMD staff's annual review of each jurisdiction. LAMD staff informed each of these jurisdictions of the identified program gaps, sent them a Letter of Concern, and gave them 30 days to submit a response that explained how they would address the program gaps. All of the jurisdictions responded with appropriate information.

LAMD staff will also closely monitor each of these jurisdictions over the next 12-18 months. If at any time during this period LAMD staff finds that any of these jurisdictions have not made adequate progress on implementing the plans that they submitted to CalRecycle, then they will be referred immediately to JCU. JCU will then conduct an independent investigation and consider whether a compliance order should be issued. Jurisdictions that fail to satisfy the conditions of a subsequent compliance order may be subject to a fine of up to $10,000 per day.

Recommendation:
Staff recommends that it be determined that the jurisdictions noted in Attachment 1 have submitted adequate plans and that they be monitored over the next 12-18 months.

Deputy Director Action:

Based on the information and analysis in this Request for Action and the findings set out above, I hereby approve the recommendation that these jurisdictions have submitted adequate responses in accordance with the "At Any Time Review Process" and that they will not be referred to JCU at this time. I direct staff to further monitor all of these jurisdictions over the next 12-18 months. If, at any time during this period, any jurisdiction is found to not be fully implementing its plan to address the identified gaps, that jurisdiction will be referred to JCU for consideration of whether a compliance order should be issued.

Dated: _____

_____
Matt Henigan, Deputy Director
Materials Management and Local Assistance

_____
Attachment 1 contains a listing of the Jurisdictions referenced in this Request for Approval.

Background Information

Over the past several years, the Legislature and Governor have set ambitious goals to increase recycling and reduce solid waste disposal, in part driven by associated greenhouse gas emission reductions. In particular, Assembly Bill 341 set a goal of reducing landfill disposal by 75 percent by 2020 and established MCR requirements, and Assembly Bill 1826 established MORe requirements. The purpose of MCR and MORe is to reduce greenhouse gas emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California. PRC sections 42649 and 42649.8 *et seq.* requires each jurisdiction to implement a mandatory commercial solid waste recycling and organics recycling program appropriate for that jurisdiction. The program is to be designed to divert commercial solid waste from regulated businesses, whether or not the jurisdiction has met the requirements of PRC section 41780. Each jurisdiction is also required to report its progress achieved in implementing the MCR and MORe laws, including education and outreach, identification, monitoring, and if applicable, enforcement efforts, by providing updates in the annual report required by PRC Sections 41821.

Statute requires CalRecycle to review whether a jurisdiction has complied with, or made a good faith effort to comply with, the requirements of the MCR and MORe laws. For purposes of this evaluation, "good faith effort" means all reasonable and feasible efforts by a jurisdiction to implement its commercial recycling program in accordance with the MCR and MORe laws (See PRC Sections 42649.3(i) and 42649.82(h)). CalRecycle may also evaluate whether a jurisdiction is in compliance at any time CalRecycle receives information the jurisdiction has not implemented, or is not making a good faith effort, to implement its mandatory commercial recycling and mandatory commercial organics recycling programs (See PRC section 42649.3(h) and 42649.82(g)(2)).

In determining compliance with this requirement, CalRecycle's evaluation may include, but is not limited to, the following factors:

- The extent to which businesses have implemented recycling programs;
- The recovery rate of the commercial waste from the material recovery facilities that are utilized by the businesses;
- The extent to which the jurisdiction is conducting education and outreach to businesses; and
- The extent to which the jurisdiction is monitoring businesses, and notifying those businesses that are out of compliance.
- The availability of markets for collected recyclables.
- Budgetary constraints.
- In the case of rural jurisdictions, the effects of small geographic size, low population density, or distance to markets.

As a result of its review, CalRecycle may find that a jurisdiction:

1) has made a good faith effort to implement its MCR and/or MORe programs; or
2) has failed to adequately implement its MCR and/or MORe program and consider issuance of a compliance order. Jurisdictions that fail to satisfy the conditions of a subsequent compliance order may be subject to a fine of up to $10,000 per day.

Staff's analysis of program implementation is based upon the Countywide Integrated Waste Management Plan Enforcement Policy Part II, originally adopted in August 2001 (by CalRecycle's predecessor, the California Integrated Waste Management Board) and revised in June 2015 pursuant to AB 341, AB 1826, and AB 1594. Pursuant to PRC section 41825(e)(3), staff utilizes the criteria delineated in the Enforcement Policy to determine the extent to which a jurisdiction has implemented, or has shown a good faith effort to implement, its MCR and MORe programs. The scenarios in the Enforcement Policy Part II provide illustrative criteria to serve as examples of the issues staff utilizes in examining local jurisdiction program implementation.

Findings

CalRecycle's LAMD staff extensively reviewed each jurisdiction during 2019 as a part of its annual review by conducting conference calls and on-site visits to verify program implementation and by reviewing documentation, including annual reports, hauler data, outreach and education materials, etc. This investigation determined the extent to which each jurisdiction has implemented PRC Sections 42649 *et seq.* and 42649.8 *et seq.*

As a result of reviewing each jurisdiction, LAMD staff identified program gaps for the jurisdictions identified in this Request for Approval. For these jurisdictions, staff looked at a variety of factors, including if annual monitoring was conducted, trends in regulated entity compliance rates, etc.

LAMD staff discussed these program gaps with each jurisdiction and, pursuant to the "At Any Time Review Process" described above, sent a Letter of Concern and provided each one 30 days to submit a plan to correct the gaps. Subsequently, these jurisdictions responded with information detailing how the gap(s) would be addressed.

LAMD staff will closely monitor each of these jurisdictions over the next 12-18 months. If at any time during this period LAMD staff finds that any of these jurisdictions have not made adequate progress on implementing the plans that they submitted to CalRecycle, then they will be referred immediately to JCU. JCU will then conduct an independent investigation and consider whether a compliance order should be issued. Jurisdictions that fail to satisfy the conditions of a subsequent compliance order may be subject to a fine of up to $10,000 per day.

The following is a summary of the program gaps for each of these jurisdictions. This summary also includes the information that the jurisdictions provided on how they will correct the program gaps.

Arcadia (MORe)

The jurisdiction is implementing its MORe program, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of December 2019 provided in Table 1 below.

Plan to Address Program Gaps:

- The City will review its existing Municipal Code to determine if haulers can be required to provide organics services to businesses under current ordinance, and, if not, the City will update its ordinance to incorporate the requirements to specify organics collection as a mandatory service and include enforcement provisions. The jurisdiction has also provided a date by which enforcement would be implemented after a period of education and outreach about the requirements.
- City will assess if modifications are needed to franchise agreement and/or rates to require the residential hauler to provide organics services to all multi-family complexes automatically.
- Review MORe program to ensure effective follow up with those not recycling and that education and outreach materials are up to date.

Bell (MORe)

The jurisdiction is implementing its MORe program, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Compliance rate nearly 100% following roll-out of automatic service subsequent to CalRecycle issuing a 30-day letter identifying MORe program gaps.

Plan to Address Program Gaps:

- Adopt an ordinance, pursuant to City Council approval, that specifies organics collection as a mandatory service and includes enforcement provisions. The jurisdiction has also provided a date by which enforcement would be implemented after a period of education and outreach about the requirements.
- Provide MORe services automatically to all covered businesses.
    - Note: Subsequent to receiving the letter from CalRecycle indicating gaps in MORe program implementation, the City subsequently rolled out carts to all MORe subject accounts as of February 2020.
- Identify businesses that self-haul and/or use 3rd party recyclers. Establish method of data collection and monitoring of self-haulers and 3rd party recyclers.
- Identify edible food recovery services/organizations, and conduct outreach to edible food generators to connect them with edible food recovery services/organizations.

Buena Park (MORe)

The jurisdiction is implementing its MORe program, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of Oct. 2019 provided in Table 1 below.

Plan to Address Program Gaps:

- Adopt an ordinance, pursuant to City Council approval, that specifies organics collection as mandatory services and includes enforcement provisions. The jurisdiction has also provided a date by which enforcement would be implemented after a period of education and outreach about the requirements.
- Review MCR and MORe programs to ensure effective follow up with those not recycling and that education and outreach materials are up to date.

Carson (MCR and MORe)

The jurisdiction is implementing its MORe program, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of November 2019 provided in Table 1 below.

Plan to Address Program Gaps:

- City and hauler will enter into negotiations for a modified franchise agreement that will include comprehensive programs to ensure the MCR and MORe programs are provided to all regulated businesses.
- Review existing Franchise Agreement and Rate Schedule to determine if modifications are needed to formally require hauler to provide services to all regulated businesses automatically.
- Provide recycling and organics services automatically to all covered businesses. The jurisdiction has provided a date by when containers would be delivered.
- Identify businesses that self-haul and/or use 3rd party recyclers. Establish method of data collection and monitoring of self-haulers and 3rd party recyclers.
- Identify edible food recovery services/organizations, and conduct outreach to edible food generators to connect them with edible food recovery services/organizations.
- Evaluate hauler's current "red tag" system, revise as necessary, and establish schedule for contamination tracking in each container.
- Review MCR and MORe programs to ensure effective follow up with those not recycling and that education and outreach materials are up to date.
- Identify current infrastructure and processing capability and determine future capacity needs.

Cerritos (MORe)

The jurisdiction is implementing its MORe program, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of November 2019 provided in Table 1 below.

Plan to Address Program Gaps:

- Solicit a rate adjustment proposal from franchise hauler that includes mandatory participation in the City's organics recycling program for all commercial rates.
- Adopt an ordinance, pursuant to City Council approval, that specifies organics collection as a mandatory service and includes enforcement provisions. The jurisdiction has also provided a date by which enforcement would be implemented after a period of education and outreach about the requirements.
- Develop process to evaluate covered businesses for possible exemptions to the MORe program, including what types of exemptions will be allowed under the City's program and statute, how to verify exemptions, and, with the City's approval, to grant an exemption to the MORe program.
- Review MORe program to ensure effective follow up with those not recycling and that education and outreach materials are up to date.
- Identify businesses that self-haul and/or use 3rd party recyclers. Establish method of data collection and monitoring of self-haulers and 3rd party recyclers.
- Identify edible food recovery services/organizations, and conduct outreach to edible food generators to connect them with edible food recovery services/organizations.

Fullerton (MCR)

The jurisdiction is implementing its MCR program, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of October 25, 2019 provided in Table 1 below.

Plan to Address Program Gaps:

- Review the downtown district shared enclosures and swap out one refuse container for a recycling bin.
- Adopt an ordinance, pursuant to City Council approval, that specifies recycling collection as a mandatory service and includes enforcement provisions. The jurisdiction has also provided a date by which enforcement would be implemented after a period of education and outreach about the requirements.
- Review MCR program to ensure effective follow up with those not recycling and that education and outreach materials are up to date.
- Identify businesses that self-haul and/or use 3rd party recyclers. Establish method of data collection and monitoring of self-haulers and 3rd party recyclers.

Glendale (MCR and MORe)

The jurisdiction is implementing its MCR and MORe programs, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of December 2019 provided in Table 1 below.

Plan to Address Program Gaps:

- Review existing solid waste ordinances/permit/agreement requirements to determine if modifications are needed to require hauler(s) to provide services to all regulated businesses automatically.
- Adopt an ordinance, pursuant to City Council approval, that specifies recycling and organics collection as mandatory services and includes enforcement provisions. The jurisdiction has also provided a date by which enforcement would be implemented after a period of education and outreach about the requirements.
- Identify businesses that self-haul. Establish method of data collection and monitoring of self-haulers.
- Develop plan to determine service levels for regulated businesses that will receive service.
- Review MCR and MORe programs to ensure effective follow up with those not recycling and that education and outreach materials are up to date.
- Identify current infrastructure and processing capability and determine future capacity needs.
- Identify edible food recovery services/organizations, and conduct outreach to edible food generators to connect them with edible food recovery services/organizations.

Hawthorne (MCR and MORe)

The jurisdiction is implementing its MCR and MORe programs, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of December 2019 provided in Table 1 below.

Plan to Address Program Gaps:

- Begin enforcement of City ordinance, which requires participation in the MCR and MORe programs, and tracking of violations.
- Modify the City's ordinance to ensure that all businesses subject to MORe are covered by the ordinance.
- Identify businesses that self-haul and/or use 3rd party recyclers. Establish method of data collection and monitoring of self-haulers and 3rd party recyclers.

La Palma (MORe)

The jurisdiction is implementing its MORe program, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of Oct. 2019 provided in Table 1 below.

Plan to Address Program Gaps:

- Adopt an ordinance, pursuant to City Council approval, that specifies organics collection as mandatory services and includes enforcement provisions. The jurisdiction has also provided a date by which enforcement

would be implemented after a period of education and outreach about the requirements.
- Review MORe program to ensure effective follow up with those not recycling and that education and outreach materials are up to date.

La Verne (MORe)
The jurisdiction is implementing its MORe program, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of June 2020 provided in Table 1 below.

Plan to Address Program Gaps:
- Adopt an ordinance, pursuant to City Council approval, that specifies organics collection as a mandatory service and includes enforcement provisions. The jurisdiction has also provided a date by which enforcement would be implemented after a period of education and outreach about the requirements.
- Review MORe program to ensure effective follow up with those not recycling and that education and outreach materials are up to date.

Lakewood (MCR & MORe)
The jurisdiction is implementing its MCR and MORe programs, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of November 2019 provided in Table 1 below.

Plan to Address Program Gaps:
- Adopt an ordinance, pursuant to City Council approval, that specifies organics collection as mandatory services and includes enforcement provisions.
- Review MCR and MORe programs to ensure effective follow up with those not recycling and develop new education and outreach materials as well as ensure existing materials are up to date.
- Improve monitoring of businesses that utilize self-haulers and 3rd party recyclers as well as document exemptions.
- Identify food recovery services/organizations, and report edible food recovered.

Pico Rivera (MORe)
The jurisdiction is implementing its MORe program, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of November 2019 provided in Table 1 below.

Plan to Address Program Gaps:
- Adopt an ordinance, pursuant to City Council approval, that specifies organics collection as a mandatory service and includes enforcement provisions. The jurisdiction has also provided a date by which

enforcement would be implemented after a period of education and outreach about the requirements.
- Review MORe program to ensure effective follow up with those not recycling and that education and outreach materials are up to date.

South Gate (MCR and MORe)
The jurisdiction is implementing its MCR and MORe programs, but based on the monitoring numbers submitted by the jurisdiction, there is still a high level of non-compliance. Non-compliance rate as of February 2019 provided in Table 1 below.

Plan to Address Program Gaps:
- Adopt an ordinance, pursuant to City Council approval, that specifies organics collection as a mandatory service and includes enforcement provisions. The jurisdiction has also provided a date by which enforcement would be implemented after a period of education and outreach about the requirements.
- Identify businesses that self-haul. Establish method of data collection and monitoring of self-haulers.
- Develop process to evaluate covered businesses for possible exemptions to the MORe program, including what types of exemptions will be allowed under the City's program and statute, how to verify exemptions, and, with the City's approval, to grant an exemption to the MORe program.
- Review MORe program to ensure effective follow up with those not recycling and that education and outreach materials are up to date.
- Identify edible food recovery services/organizations, and conduct outreach to edible food generators to connect them with edible food recovery services/organizations.

Table 1: Non-Compliance Rate for MCR and/or MORe Programs

Jurisdiction	MCR Business Non-Compliance Rate	MCR Multifamily Non-Compliance Rate	MORe Business Non-Compliance Rate	MORe Multifamily Non-Compliance Rate
Arcadia	N/A	N/A	96%	80%
Bell	N/A	N/A	N/A	N/A
Buena Park	N/A	N/A	87%	80%
Carson	Unknown	Unknown	99%	35%
Cerritos	N/A	N/A	93%	50%
Fullerton	89%	100%	N/A	N/A
Glendale	N/A	54%	31%	94%
Hawthorne	55%	74%	98%	73%
La Palma	N/A	N/A	88%	65%
La Verne	N/A	N/A	79%	78%

Lakewood	69%	76%	90%	100%

Table 1: Non-Compliance Rate for MCR and/or MORe Programs (cont.)

Jurisdiction	MCR Business Non-Compliance Rate	MCR Multifamily Non-Compliance Rate	MORe Business Non-Compliance Rate	MORe Multifamily Non-Compliance Rate
Pico Rivera	N/A	N/A	96%	100%
South Gate	57%	91%	98%	100%

CalEPA
California Environmental Protection Agency

Gavin Newsom
Governor

Jared Blumenfeld
Secretary for Environmental Protection

Unified Program Newsletter – June 2020

Contents

CalEPA

CERS Knowledge Base, Help Articles and FAQs

(https://cers.calepa.ca.gov/newsletter-articles)

How to Create a New Organization (with no facilities added) in CERS

(https://cers.calepa.ca.gov/wp-content/uploads/sites/11/2020/06/CERS-Regulator-Portal-Help-Newsletter-Article-June-2020.pdf)

AB 1429: CERS HMBP Annual Certification

Background:

Assembly Bill 1429 of 2019 (Health and Safety Code Chapter 6.95 Article 1, Section 25508) modifies the Hazardous Material Business Plan (HMBP) program by changing the business plan submittal period from annually to once every three years for businesses not subject to EPCRA Tier II reporting requirements or the Aboveground Petroleum Storage Act. AB 1429 also requires these businesses to annually review and certify that the information in the California Environmental Reporting System (CERS) is complete, accurate, and in compliance with EPCRA. An electronic HMBP submittal to CERS satisfies this certification requirement. The businesses who are not subject to the EPCRA or APSA requirements will still be required to submit a complete HMBP every three years.

CERS currently does not have this HMBP certification functionality. CalEPA is currently working to develop the HMBP certification functionality in CERS, which will allow businesses to annually certify that the HMBP information in CERS is complete, accurate, and in compliance with EPCRA.

CERS Solution:
The CERS solution will create the functionality in CERS that will allow a business to certify annually that the information in CERS is complete, accurate, and in compliance with EPCRA in lieu of a complete HMBP submittal in CERS. The primary components of the CERS solution are:

- HMBP Certification Option to User Interface – insert a certification button to allow businesses to certify the HMBP information in CERS is accurate and complete instead of submitting a complete HMBP.
- Determining/Validating HMBP Certification Eligibility – submittal in past 36 months, not subject to EPCRA or APSA, etc.
- Add New Submittal Status "Certified" – The submittal will come in the system as certified and be automatically accepted with no further action required by CUPA.
- Add New Event Types/Notifications for "Certified" Submittals – email notifications, etc.
- Update Affected Reports – to add "certified" submissions.
- Update Windows Services – used for large user print jobs, large submittal, and inventory downloads, etc., to ease the burden on the server.
- Testing certification functionality (internal, external and portal CUPA's) – This will be an ongoing process as the CalEPA IT Team completes sections of the overall update requirements. Subject matter experts and key stakeholders are involved in user acceptance testing for each of the major requirements. The deployment of new features will be created in the CERS test environment as they are completed. When there are testable units of functionality, SMEs and key stakeholders will be asked to participate in testing.
- Deployment in CERS – Once all requirements and functionality are completed, tested, and approved by the Unified Program and stakeholder community, the final solution will be deployed to the CERS production environment. At this point, eligible businesses can certify that the HMBP information in CERS is complete, accurate, and in compliance with EPCRA.

Status:
The Cal EPA IT Team have began development of the Annual HMBP Certification functionality in CERS. Development of each of the major requirements will use an iterative process where subject matter experts and key stakeholders are involved in each development iteration to provide input for the development of each requirement.

Anticipated Completion Date:
Mid-August – Early September 2020

Potential Future Additional Modifications:

- Allow businesses with multiple facilities to certify all qualified facilities at one time, rather than a single facility at a time;
- EDT Tier changes.

State Water Board

Adoption of Proposed Reporting Regulations

The proposed underground storage tank (UST) regulations for reporting were adopted at the May 19, 2020, Board Meeting conducted by the State Water Resources Control Board (State Water Board). The adopted UST regulations amend California Code of Regulations, title 23, division 3, chapter 16, (UST Regulations) sections 2713, 2716 and Appendices (forms). The adopted amendments modify the reporting requirements of owners and operators, and local agencies. The State Water Board also adopted significant modifications to certification, inspection, and testing forms.

State Water Board staff will soon submit the completed rulemaking package to the Office of Administrative Law (OAL) for review and approval before being filed with the California Secretary of State. We will provide an effective date once we have been advised by OAL. A copy of the resolution adopting the proposed UST regulations will be posted on the State Water Board's 2020 Resolutions webpage shortly. (https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/res20.html)

Additional information on the rulemaking package is available on the UST Program's Proposed Reporting UST Regulations webpage (https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/represgs/index.html).

For additional information regarding the adopted UST Regulations, contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Changes to Report 6 and Associated Documents

The United States Environmental Protection Agency (U.S. EPA) revised the UST compliance performance measures known as technical compliance rate (TCR), to reflect changes to the federal UST regulations of 2015. Additionally, the U.S. EPA requires states to provide the number of field constructed tanks (FCT) and airport hydrant systems (AHS) within their jurisdiction. Unified Program Agencies (UPAs) will submit the FCT data as part of the Report 6 due on September 1, 2020. Reporting AHS data will require collaboration between State Water Board, UPAs, and operating hydrant system owners and operators to determine if AHS are subject to UST regulation and therefore also subject to reporting. State Water Board will begin coordination this summer with all the involved regulatory agencies. UPAs will begin reporting AHS data as part of Report 6 due on September 1, 2021.

The U.S. EPA defines an FCT as:
A tank constructed in the field. For example, tanks constructed of concrete that is poured in the field, or steel or fiberglass tanks primarily fabricated in the field are considered field-constructed.

This is a broad definition and goes beyond what the State Water Board has historically termed as Bulk Field Constructed Storage Tanks (LG-151)
(https://www.waterboards.ca.gov/water_issues/programs/ust/leak_prevention/lgs/151_3.shtml).

Therefore, any UST where either the primary or secondary containment was poured, assembled, or constructed onsite or in site must be identified and reported as an FCT in the upcoming Report 6 due on September 1, 2020.

Additionally, the Report 6 will require UPAs to identify using the CERS identification number, those facilities with USTs that have received a red tag during the report period, or have an abandoned or temporarily closed UST as of the closing date of the reporting period.

For additional information regarding changes to Report 6, contact
Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or
Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

UST Program Monthly Update Index

UST Program Monthly Updates are organized by topic in a searchable index. This index is available on the UST Program Monthly Update web page
(https://www.waterboards.ca.gov/ust/cupa/updates/).

Topics from 2014 to present may be found covering everything from new regulations to program guidance. In addition, the index identifies State Water Board staff contact information in the event UPAs have additional questions on covered topics. Many questions State Water Board staff receive can be answered using this index.

For additional information regarding the UST Program monthly update index, contact
Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov, or
Mr. Wesley Franks at (916) 319-0742 or Wesley.Franks@waterboards.ca.gov.

Lyris Email Distribution System

The UST Program uses a Lyris email distribution system (Lyris) to distribute UST Program correspondence. State Water Board staff continue to find members of both the UPAs and UST stakeholders who have not heard about Lyris, and as such, UST Program correspondence may go unseen. State Water Board staff continues to encourage Lyris participation at meetings, technical advisory groups, and regional gatherings, but there is more which can be done. Therefore, we encourage UPAs to assist their colleagues and UST stakeholders in signing up for Lyris.

To subscribe to the UST Program Lyris, please go to the UST Program Lyris subscription web page
(https://www.waterboards.ca.gov/resources/email_subscriptions/ust_subscribe.html).

State Water Board staff encourages UPAs to select "CUPA/PA UST Managers and Inspectors" and UST stakeholders to select any of the other lists available.

For addition information regarding signing up for Lyris, contact
Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov, or
Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

UST Inspector Training for Continuing Education

Due to the COVID-19 pandemic shelter in place orders and limited training opportunities, UPA inspectors may need alternative training opportunities to meet the continuing education requirement for renewal of the International Code Council (ICC) UST Inspector certification. UST Regulations require inspectors to possess a current inspector certificate issued by the ICC. In addition, UST Regulations require the ICC inspector certificate to be renewed once every 24 months. UPA inspectors have the option to either re-take the ICC UST Inspector exam or use continuing education for renewal purposes.

State Water Board revised the correspondence *Implementation of Continuing Education Contact Hours for Renewal of California UST Inspector ICC Certification* dated September 10, 2019. A copy of this correspondence can be obtained on the State Water Board UST Program - Certification and Training Information web page.
(https://www.waterboards.ca.gov/ust/training/docs/causticc20190910.pdf)

In order to track and verify continuing education contact hours, UPA inspectors should use the *California ICC UST Inspector Contact Hour Verification Form*
(https://www.waterboards.ca.gov/ust/forms/docs/icc_contact_hr_verification.pdf).

UPA inspectors using the verification form will need their manager, supervisor, or trainer to sign off on the verification form and maintain the verification form for renewing their ICC UST Inspector certificate.

The list below identifies some web-based training topics and associated links for UST inspectors in the event inspectors need opportunities for continuing education in order to renew ICC UST Inspector certificates:

U.S. EPA Virtual Training
https://19january2017snapshot.epa.gov/ust/ust-lust-virtual-classroom_.html

U.S. EPA UST and LUST Training
https://www.epa.gov/ust/ust-and-lust-training

New Federal UST Regulations (CUPA Training Conference 2015)
https://youtu.be/--6gUR_9TBA

Basic/Intermediate UST Inspections (CUPA Training Conference 2015)
https://www.youtube.com/watch?v=rleDNE5BYwY&feature=youtu.be

Xerxes Installation
https://www.youtube.com/watch?v=fDwjDXg87dM

Emerging Fuels
https://www.youtube.com/watch?v=l2e9CWh92O8

Automatic Tank Gauges
https://www.youtube.com/watch?v=EUtCFAVB6_U

Overfill Prevention
https://www.youtube.com/watch?v=ypsxe7XxSCc&t=11s

PEI 1200 Training
https://www.youtube.com/watch?v=k1l9digvjE8

Beginner UST Inspector 101-The Basics (CUPA Training Conference 2016)
https://www.youtube.com/watch?v=jnXi7Uw5D5U

Note: Some of the training identified in the table above is based on Federal and other state requirements.

For additional information regarding web-based training opportunities for continuing education in order to renew ICC UST Inspector certificates, contact
Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov, or
Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

DTSC

RCRA "State Review Framework"

U.S. EPA HQ has revised its mechanism for displaying RCRA "State Review Framework" (SRF) compliance summary data to the public. The new user interface is a group of reports presented as a dashboard. The public (and registered regulator users) have access to 10 years' worth of evaluation, violation, and enforcement data. These changes have been documented well in the 'what's new' section of ECHO, but here are the highlights:

How does RCRA info data get to ECHO?
(https://echo.epa.gov/help/tutorials#rcradataflow)

The old SRF dashboards have been retired and replaced with a new RCRA dashboard.
(https://echo.epa.gov/trends/comparative-maps-dashboards/state-hazardous-waste-dashboard?state=National&view=activity)

To update compliance data steward information for your state please click on the "Contact Us" link on EPA Web Application Access Page.
(https://echo.epa.gov/resources/echo-data/data-stewards#bystate)

Please take some time to look at dashboard data for your state. Any feedback on the dashboard can be sent to kane.rebecca@epa.gov.

Cal FIRE OSFM

State Fire Marshal Appointment

Chief Michael Richwine was appointed as the State Fire Marshal by Governor Newsom on May 15, 2020. Information may be viewed on the California Governor's Office website.
(https://www.gov.ca.gov/2020/05/15/governor-newsom-announces-appointments-5-15-20/)

References or links to information cited in this newsletter are subject to change. CalEPA is interested in your comments and suggestions regarding the Unified Program monthly newsletter. Please email your comments and suggestions to: cupa@calepa.ca.gov.

CalEPA Unified Program Home Page

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State Water Board

Financial Responsibility Requirement and the UST Cleanup Fund

The State Water Resources Control Board (State Water Board) Underground Storage Tank (UST) Cleanup Fund, currently used as all or part of the financial responsibility mechanism by about 60 percent of UST facilities, will sunset on January 1, 2026. With the exception of state and federally owned UST facilities, all petroleum UST facilities require financial responsibility. Although the UST Cleanup Fund will not sunset until January 1, 2026, UST owners and operators will not be permitted to use the UST Cleanup Fund as a financial responsibility mechanism after December 31, 2024. All UST owners and operators must provide evidence of a new financial responsibility mechanism on or before December 31, 2024.

While single-walled UST facilities are not required to permanently close until December 31, 2025, it is unlikely these facilities will be able to obtain another mechanism for financial responsibility after December 31, 2024, as required. This will have two immediate effects:

- Single-walled facilities that cannot obtain a new financial responsibility mechanism, as required by both federal rule and state law, will be required to immediately shut down and permanently close the USTs; and
- Single-walled facilities that no longer have a financial responsibility mechanism will not be eligible to file a claim with the UST Cleanup Fund.

Additional deadlines and restrictions apply to new UST Cleanup Fund claims and UST Cleanup Fund reimbursements in 2025. UST owners and operators who delay removing single-walled USTs may have to pay the entire cost of any site investigation and remediation. Site investigation and cleanup can take years and cost hundreds of thousands of dollars.

While there are many financial responsibility mechanisms available to UST owners and operators, including private insurance, surety bonds, and letters of credit, some of these mechanisms may not be accessible or feasible to small businesses. UST owners and operators should be familiar with the financial responsibility requirements and options as defined in 40 Code of Federal Regulations, section 280, subpart H (https://www.ecfr.gov/cgi-bin/text-idx).

For additional information regarding financial responsibility requirements, contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Tank Tester Licensing Regulations

The Office of Tank Tester Licensing (OTTL) updated the desk reference version of the California Code of Regulation, title 23, division 3, chapter 17 (OTTL Regulations) to an accessible format in order to comply with accessibility requirements. The accessible OTTL Regulations are available on the State Water Board UST Program Statutes & Regulations web page (https://www.waterboards.ca.gov/ust/regulatory/docs/chapter17.pdf).

For additional information regarding OTTL Regulations, contact Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Regulatory Deadline for Overfill Prevention Equipment Inspection

On June 24, 2020, correspondence was issued regarding the regulatory deadline (deadline) for overfill prevention equipment inspection (overfill inspection) and the possibility of service technician and equipment availability issues in anticipation of numerous UST owners or operators required to complete overfill inspections in October 2021.

California Code of Regulations, title 23, division 3, chapter 16 (UST Regulations), section 2637.2(a) requires overfill inspections to be completed no later than October 13, 2018, at installation, upon repair, and every 36 months thereafter. In accordance with UST Regulations, section 2620(e), all periodic overfill inspections must be completed no later than the last day of the month during which the overfill inspection is required. Therefore, those overfill inspections completed before the October 2018 deadline must be completed no later than 36 months after the initial overfill inspection (e.g., An overfill inspection performed August 2018 must complete the periodic overfill inspection no later than August 31, 2021.)

UST owners or operators that failed to meet the October 2018 deadline for the initial overfill inspection must complete the periodic overfill inspection on or before the last day of the month required. Since the initial overfill inspection was required by October 13, 2018, the periodic overfill inspection deadline for all late overfill inspections is October 31, 2021.

To avoid the risk of violations and to reduce the possibility of service technician and equipment constraints now and in the future, the State Water Board staff encourages UST owners or operators to complete the overfill inspection early. UST owners or operators may also obtain cost savings by completing the overfill inspection with the secondary containment testing or the annual monitoring system certification. In accordance with UST Regulations, section 2620(e), completing the overfill inspection early moves the deadline forward, so that the next overfill inspection will be due at the end of the 36th month following the overfill inspection, rather than October 2024, when service technician and overfill equipment availability again is expected to be limited.

For more information regarding the deadline for overfill inspections, contact Ms. Jessica Botsford at (916) 341-7338 or Jessica.Botsford@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

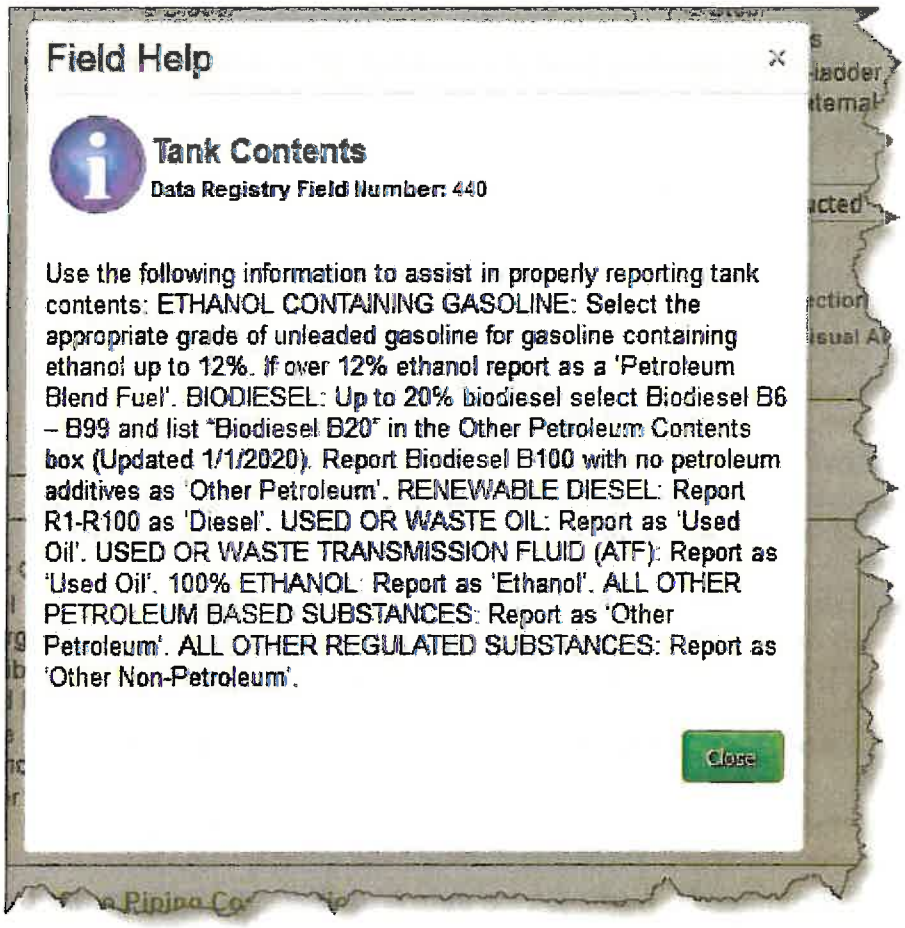
California Environmental Reporting System Enhancement: Help Bubble for Biodiesel up to 20 Percent

State Water Board updated the California Environmental Reporting System (CERS) to include a help bubble in Field 440 - "Tank Contents." This help bubble includes instructions for USTs containing up to 20 percent biodiesel fuel (B20), and will assist UST owners or operators with selecting proper tank content information. UST owners or operators must properly identify in submittals, USTs containing up to B20 by:

- Selecting "Biodiesel B6 – B99"; and
- Listing "Biodiesel B20" in the Other Petroleum Content box.

To ensure correct reporting of UST contents, Unified Program Agencies (UPAs) must only accept submittals for USTs containing up to B20 that conform to this protocol. Inspection and permitting activities are the best time to ensure USTs storing B20 are properly reported in CERS.

A screenshot of the CERS help bubble may be viewed below:



For additional information regarding proper reporting of B20, contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Product Pipe Manifolded in the Under-Dispenser Containment

State Water Board staff have seen an increase in the number of UST systems that have manifolded two or more USTs in the under-dispenser container (UDC) rather than at the USTs. The UST Regulations do not prohibit manifolding UST systems within the UDC, however, there are several considerations that must be taken into account when UST systems are manifolded:

Line leak detector – If installed incorrectly then line leak detectors (LLD) on manifolded lines will not work properly. Please consult the LLD manufacturer for proper installation and testing guidance of LLDs for manifolded systems. The location of the LLD could differ between electronic and mechanical LLDs.

Piping Construction – In-line components such as check valves and pressure relief valves can affect how the system functions and possibly whether the LLD will function properly.

System Programming – Owners and operators should confirm how the turbine operation is set as this could affect the proper operation of the LLD and shear valves. Whether the system is set for the turbines to alternate or both run at the same time must be considered.

Shear Valves – Systems are being manifolded both above and below the shear valves. While this would not be specifically addressed as part of the UST Regulations, this likely would be part of fire code and possibly local ordinances. Before manifolding pipe in the UDC, contact the local fire department.

Positive Shut Off – If the system is using the fail safe and positive shut off option rather than performing an annual line tightness test, any sensor used to generate the positive shut off must shut down all manifolded UST turbines.

UST owners, operators and their contractors should contact the UPA and the local fire department for direction prior to beginning work on manifolding pipe.

For additional information regarding pipe manifolded in the UDC, contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Testing Notifications for Tank and Line Integrity Testing, Enhanced Leak Detection Testing, and Associated Test Results

To improve tracking and monitoring of tank tester activities, the OTTL provided correspondence to licensed California tank and line integrity testers on June 12, 2020. The correspondence elaborates on the regulatory requirement to submit test notifications for the purpose of testing the integrity of tanks and lines, and for enhanced leak detection (ELD) testing to OTTL. In addition, the correspondence elaborates on the regulatory requirement to submit associated test results for tank, line, and ELD testing to OTTL. The correspondence is available on the State Water Board UST Program OTTL web page (https://www.waterboards.ca.gov/ust/tank_testers/docs/noticetosubmit_2020.pdf).

In addition to the correspondence, and to ensure critical testing information is provided to OTTL, the OTTL has developed a test notification form for submitting tank, line, and ELD test notifications to OTTL. The test notification form is available on the State Water Board UST Program OTTL web page (https://www.waterboards.ca.gov/ust/tank_testers/docs/testnotification_2020.pdf).

For information regarding tank and line integrity or ELD test notifications, contact Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Monitoring System Certification Requirement for In-Tank Gauging

State Water Board staff routinely field the question, "When is the certification of the automatic tank gauge (ATG) required as part of the 12-month UST monitoring system certification?" While staff receive this question from UST owner and operators, service

technicians and, UST inspectors, the question almost always derives from an incorrect application of the requirement, resulting in either a violation for the owner or operator, or unnecessary additional work for the service technician performing the certification, by misclassifying the ATG as release detection.

Double-walled UST systems require interstitial monitoring as defined in UST Regulation, section 2632(b) and therefor prohibits the use of an ATG as a method of release detection. Double-walled UST systems can use the ATG as part of the overfill prevention equipment or for tank inventory. Neither of these uses, overfill or tank inventory, require the ATG to be certified as part of the monitoring certification.

Conversely, while there exist some rare exceptions, virtually all single-walled UST systems require the ATG to be used as the release detection method. Since the ATG is the release detection method for single-walled UST systems, service technicians are required to certify the ATG as part of the monitoring certification every 12 months.

USTs using the ATG as part of overfill prevention equipment are required to inspect the device upon installation, repair, and at least once every 36 months. Overfill equipment inspections are documented on the *Overfill Prevention Equipment Inspection Report Form*, and not on the *Monitoring System Certification Form*.

For additional information regarding when ATG certification is required, contact Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov, or Mr. Tom Henderson at (916) 341-9128 or Tom.Henderson@waterboards.ca.gov.

Underground Storage Tanks Connected to Tanks in Underground Areas

Beginning July 1, 2018, tanks in underground areas (TIUGA) are regulated by the Office of State Fire Marshal as aboveground storage tanks (ASTs). This date was established by effective date of TIUGA regulations. Additionally, TIUGAs and associated pipe are exempt from the definition of a UST, in accordance with Health and Safety Code (H&SC), section 25281(y)(1)(E).

The piping associated with a TIUGA, if shared with a UST, specifically includes the liquid product and return piping and associated pump or turbine, up to the tank top fitting. However, UST sumps containing the liquid product and return piping connections, additional components within the sump, and any other shared TIUGA and UST components, other than the TIUGA supply and return pipe and associated pump or turbine, are part of the UST system and must meet all UST requirements.

For additional information regarding TIUGAs connected to USTs, contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Changes to Report 6 and Associated Documents

The United States Environmental Protection Agency (U.S. EPA) revised the UST compliance performance measures known as technical compliance rate (TCR), to

reflect changes to the federal UST regulations of 2015. Additionally, the U.S. EPA requires states to provide the number of field constructed tanks (FCT) and airport hydrant systems (AHS) within their jurisdiction. UPAs will submit the FCT data as part of the Report 6 due on September 1, 2020. Reporting AHS data will require collaboration between State Water Board, UPAs, and operating hydrant system owners and operators to determine if AHS are subject to UST regulation and therefore also subject to reporting. State Water Board will begin coordination this summer with all the involved regulatory agencies. UPAs will begin reporting AHS data as part of Report 6 due on September 1, 2021.

The U.S. EPA defines an FCT as:
A tank constructed in the field. For example, tanks constructed of concrete that is poured in the field, or steel or fiberglass tanks primarily fabricated in the field are considered field-constructed. This is a broad definition and goes beyond what the State Water Board has historically termed as Bulk Field Constructed Storage Tanks (LG-151) (https://www.waterboards.ca.gov/water_issues/programs/ust/leak_prevention/lgs/151_3.shtml).

Therefore, any UST where either the primary or secondary containment was poured, assembled or constructed onsite or in situ must be identified and reported as an FCT in the upcoming Report 6 due on September 1, 2020.

Additionally, the Report 6 will require UPAs to identify using the CERS identification number, those facilities with USTs that have received a red tag during the report period or have an abandoned or temporarily closed UST as of the closing date of the reporting period.

For additional information regarding changes to Report 6, contact
Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or
Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

DTSC

DTSC's 2020 ID Number Verification Questionnaire Report Cycle Now Open

DTSC's 2020 Hazardous Waste ID Number Verification Questionnaire and Manifest Fees Assessment report cycle opened on July 1, 2020. The Verification Questionnaire is completed through the electronic Verification Questionnaire (eVQ) System (https://evq.dtsc.ca.gov/Home.aspx).

The eVQ System provides a fast and convenient way for required hazardous waste handlers to complete the annual Verification Questionnaire to maintain the active status of their EPA ID numbers. If you receive any questions from your stakeholders regarding the questionnaire, refer them to the information below:

Website: evq.dtsc.ca.gov
Training Video: https://dtsc.ca.gov/evq-training-video/
FAQ: https://dtsc.ca.gov/hazardous-waste-id-number-verification-questionnaire/

Email: eVQ@dtsc.ca.gov
Telephone Number: 1-877-454-4012 (toll-free)

References or links to information cited in this newsletter are subject to change. CalEPA is interested in your comments and suggestions regarding the Unified Program monthly newsletter. Please email your comments and suggestions to: cupa@calepa.ca.gov.

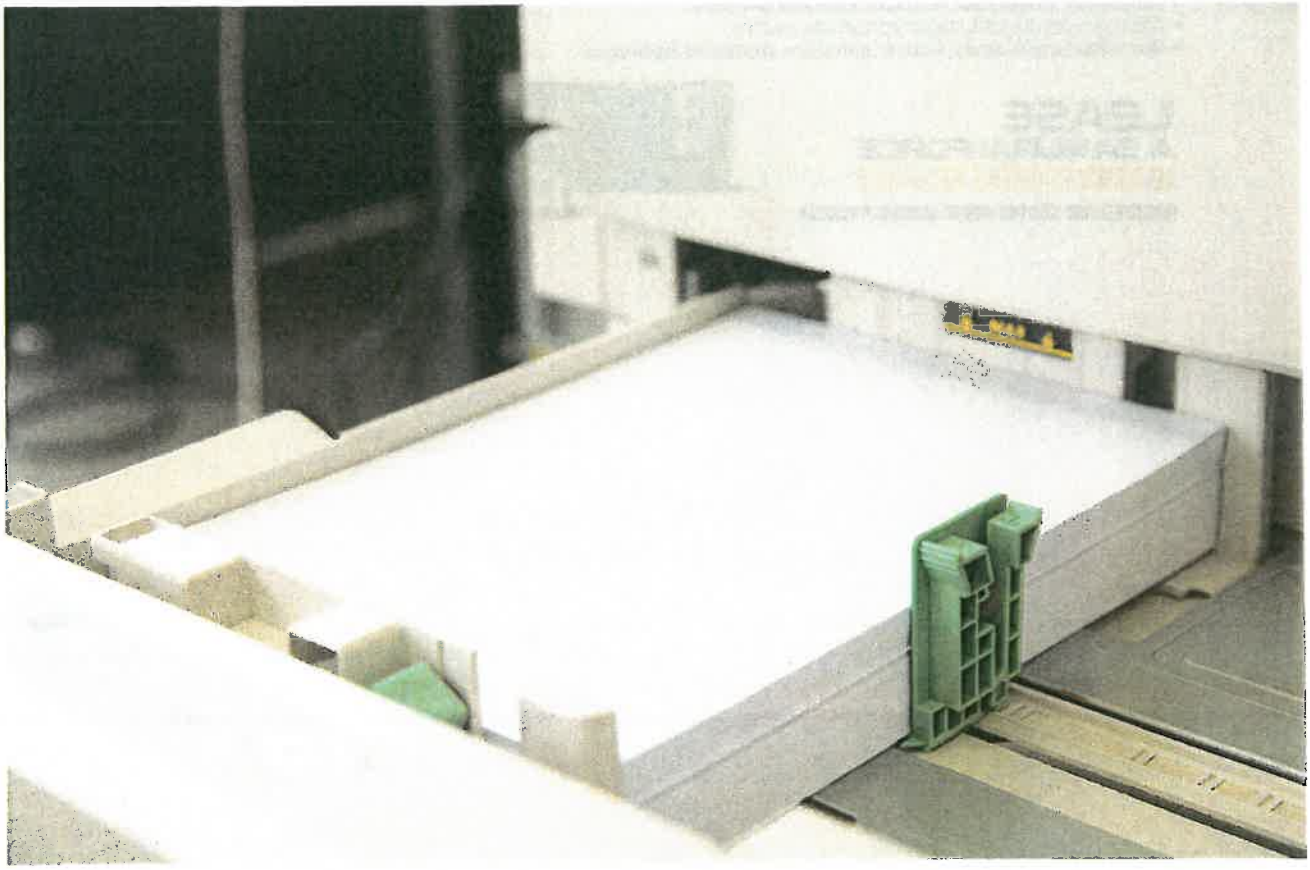
CalEPA Unified Program Home Page

Agenda Item IX

ARTICLES OF INTEREST

Cities and groups chime in on feds' procurement planning - Resource Recycling News

Jared Paben



Paper is one of eight categories within the U.S. EPA's federal procurement guidelines | Aleksei Lazukov/Shutterstock

The U.S. EPA asked for public feedback on a list of recycled-content products purchased by federal agencies. The request drew 114 responses from a range of recycling stakeholders.

For the first time in 13 years, the U.S. EPA is going through the process of updating what it calls its Comprehensive Procurement Guidelines (CPGs), which push federal agencies toward buying 61 recycled-content products in eight categories: paper, vehicular, construction, transportation, park and recreation, landscaping, non-paper office and miscellaneous products.

As part of the update, the EPA asked for public comments on the existing lists, seeking feedback on whether products should be added or deleted, recycled-content levels adjusted and more. In addition to the lists, the EPA produces advisory notices to help agencies go about buying specific products in those categories. EPA sought feedback on those advisory notices, too.

A total of 114 comments were submitted before the July 6 deadline. Among the public entities submitting comments were representatives from Alameda County, Calif.; Baltimore County, Md; Chatham County, N.C.; King County, Wash.; the Missouri State Recycling Program; Pennsylvania Recycling Markets Center; Phoenix; Portland, Ore.; San Francisco; Santa Monica, Calif.; and the Washington State Department of Ecology. All of the comments are available online.

A number of commenters noted the federal government's purchasing power through the CPGs also helps state and local governments buy recycled products.

For the past 15 years, the Missouri State Recycling Program has used the federal CPGs to encourage Missouri state agencies to buy recycled-content products, wrote Robert Didriksen, the state recycling coordinator. "For an agency with limited resources the CPG has been an invaluable resource that has greatly facilitated our ability to promote buying recycled through the years," he wrote.

Alameda County, Calif, which includes the cities of Berkeley and Oakland, relies on the CPG standards to buy products as diverse as file folders and plastic signs, wrote Karen Cook, sustainability project manager at the county.

"Without EPA's leadership in setting standards for recycled content, we would not be able to set standards across a broad range of products, because we would not have the time or expertise to engage the marketplace to identify reasonable stretch goals for driving the market forward in their use of recycled content source materials," she wrote.

A number of prominent nationwide recycling industry groups also weighed in, including the Association of Plastic Recyclers (APR),

Construction & Demolition Recycling Association, Institute of Scrap Recycling Industries (ISRI), National Recycling Coalition (NRC), Northeast Recycling Council (NERC), US Composting Council and others. Some major corporations, including Waste Management (WM), also submitted comments.

According to the EPA's request for comments, before finalizing any changes to the CPGs, the agency will issue a public notice and solicit another round of comments.

More stories about regulation/oversight

- GFL to buy assets from WM and Advanced Disposal
- C&D recycler hit with major permitting penalty
- Recycling largely steers clear of mandates shuttering businesses

Can Ash Be Transformed from Waste to Desired Commodity?

Arlene Karidis | Jul 20, 2020

Of the hundreds of millions of tons of materials burned at U.S. waste-to-energy plants, about 20% remains as residual ash, taking up landfill space and ratcheting up disposal costs.

Some in the industry are looking to transform municipal solid waste ash from a drain on their operations and bottom lines to a high-demand commody. A central focus has been exploring the incorporation of ash in cement mixes and road materials. But there have been barriers, two big ones being product performance and the potential environmental risks associated with this approach.

A few industry participants may be getting closer to the holy grail, with their goal being to produce viable products at commercial scale.

A Florida municipality has proven that MSW ash works well in aggregate for small road applications, but has been challenged to convince engineers and contractors it will hold up to Department of Transportation standards.

Another group of Florida researchers are looking at a process involving a kiln that produces an ash-amended product comparable to Portland cement.

Perhaps the group closest to breaking into markets at commercial scale is Covanta, which launched a plant in 2015 with this aspiration in mind. Covanta has since figured out how to make several products incorporating ash at the plant, leveraging what it calls its "total ash processing system."

With this system, Covanta, which has a solid presence throughout North America, would landfill less than 10% of its ash. And company officials say they hope to get that figure down to zero. The technology cleans and separates ash into components to make a high-grade offtake to incorporate into asphalt and concrete products.

"We have a lot of ash: 5 million tons a year," says Steve Bossotti, senior

vice president of Covanta Metals Management. "This is our first full-scale plant, and in the first year it will take 400,000 tons and turn it into reusable aggregates, while also recovering more metal than we were already recycling. If proven out, we hope to replicate the technology to avoid landfilling while providing more sustainable materials to recycle and reuse for different manufacturing applications."

Some have tried using raw ash and have run into problems — a major one being the presence of metals.

"We found a way around this by getting metal to a micron level, which allows us to make aggregate that's metal free and can be reused in asphalt, and a product that will go in cement kilns to make concrete," says Bossotti.

The small metal size will go to the company's existing aluminum and copper smelters. The aggregate left after metals are extracted will go to asphalt and concrete manufacturers.

Covanta has secured letters of intent with a few such businesses after having spent several years fine-tuning the technology. It entails a three-step process:

1. Processing different grades or particle sizes of metals.
2. Separating each grade by density or weight.
3. Further refining the aggregate to extract aluminum.

What's in it for the aggregate guys? Currently, many pay to mine for virgin sand. But the new technology will give them an alternative whereby they can replace 50% of the sand in concrete mix with manufactured sand derived from ash. As a result, Bossotti says, aggregate producers will save money, and Covanta will make money on a material that it previously had to pay to send to landfills.

An additional benefit for some operations will be an easier route to compliance.

"Some states are beginning to restrict the mining of sand," Bossotti says. "But we are not digging more holes in the ground, so there will be less need for mining."

In 2014, the solid waste department in Pasco County, Florida, undertook a pilot project that entailed processing and screening ash from its WTE plant for use as construction material.

The department produced three sections of road at its site that incorporated ash in three different materials: concrete, asphalt, and road subbase. After finding no impact on groundwater in 14 monitoring wells over several years, the agency has looked to expand to other applications. But it has had a hard time getting material specifications that engineers and contractors feel comfortable with, showing that it is DOT-quality aggregate.

"Moving from smaller projects to larger ones requires more testing and gathering more data," says Justin Roessler, assistant solid waste director for Pasco County's Public Infrastructure Branch. "We've done access roads on our site, and it has worked well. But, again, it's about long-term proof of concept and data to support wide use applications with more traffic like arterial roads."

But Roessler says he's buoyed by the fact that his group has been working with DOT to develop specifications. "I think that would give everyone great confidence," he says.

Roessler says that he hopes by the end of the year to have a larger project lined up to do a higher-traffic road.

Linda Monroy, a PhD engineer in training in the solid waste division in Lee County, Florida, has been involved in exploring the feasibility of

placing ash along with other raw materials into a kiln to make cement that goes into concrete.

Monroy has done research involving collecting ash from different facilities in Florida and studying their chemical characteristics to assess how much could be put in a kiln along with the other raw materials. Her team also did a cost analysis to assess the benefits for cement manufacturers and ash generators.

The team found that all ash samples could potentially form a viable cement clinker, but the amount of ash in the raw mix would be limited.

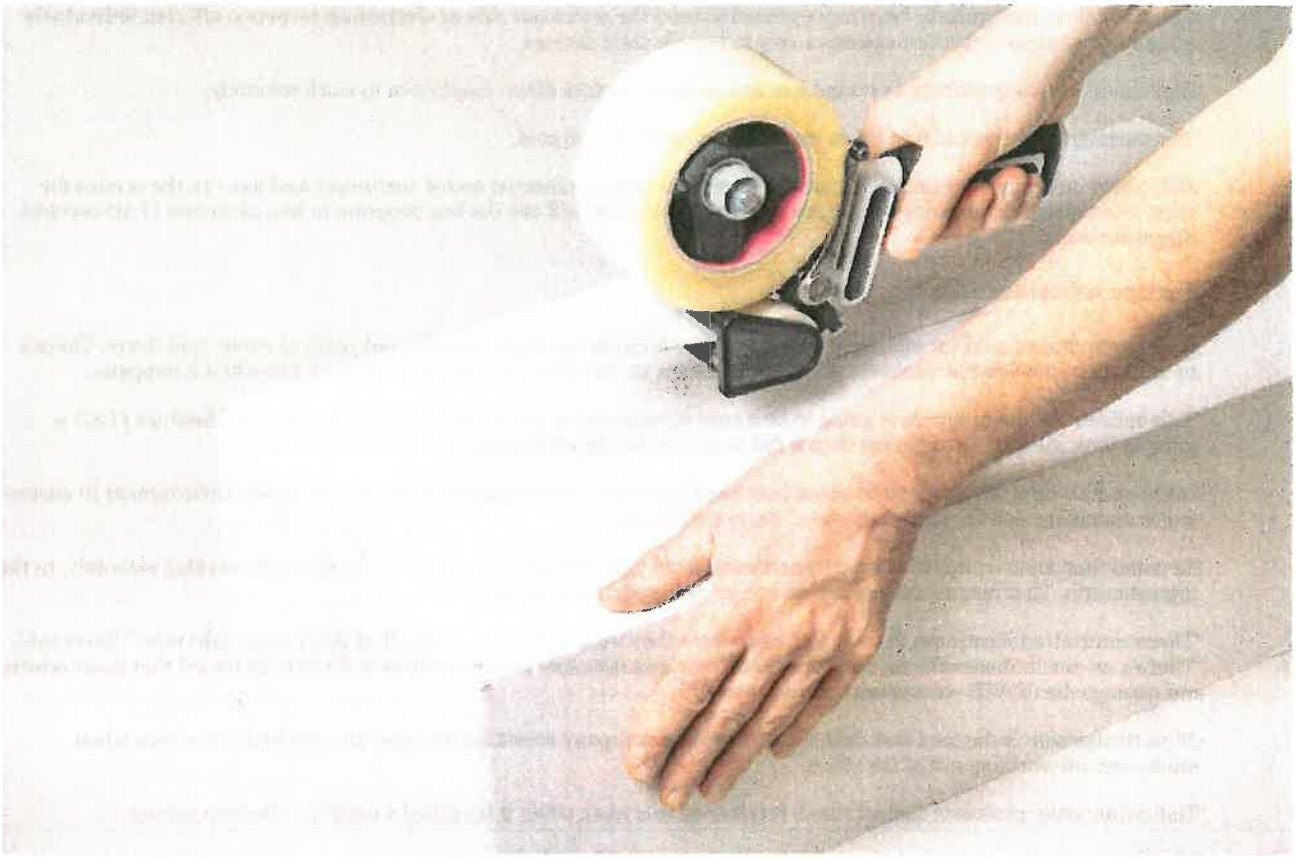
On the cost end, they found that the process was not feasible in one scenario in which the closest cement kiln was 143 miles away. But at a second facility within 62 miles of a kiln, the use of ash could save $1.70 per ton of cement clinker produced, says Monroy.

She figures that beneficial MSW ash use projects could appeal to more landfill operators and other solid waste professionals.

"We are always looking for ways to optimize landfill operations and maximize capacity," Monroy says. "New ways to recycle MSW incineration ash can tackle both of these by reducing the amount of ash that needs to be managed at the landfill. Working alongside the cement industry can give us another option to manage part of the ash in an environmentally and financially sound manner."

For more processors, 'mailing it in' means opportunity - E-Scrap News

Colin Staub



Mail-in electronics recycling has become more common in the era of COVID-19 as in-person collection events are cancelled. | mdbildes/Shutterstock

The coronavirus pandemic has strained e-scrap collection, but that's opening the door to an alternative recovery system that minimizes contact between people.

Mail-in device collection has for years been offered by electronics recovery firms in various forms, with many companies calling the strategy a "box program." Now, the approach is taking on greater importance as in-person events get canceled and the offices that would previously be serviced by ITAD vendors remain closed.

"We've seen massive interest in the box program since the pandemic began," said John Shegerian, co-founder and executive chairman of ERI. It's not something ERI planned for, he said, but the program was up and running and was able to meet a need as COVID-19 took hold.

"Tens of millions of pounds were already being collected annually through our box program and we have seen a dramatic increase in 2020 for the box program specifically, so we are aware we are meeting a significant need with this," Shegerian said.

Brent Berry, Ingram Micro's executive director of client services for the Americas, said his company has offered the service for more than seven years. But he sees mail-in arrangements drawing greater focus as ITAD firms and their clients grapple with new realities around asset management.

"It's about, how are you leveraging that program into your customer's new infrastructure?" Berry said.

Consumers and businesses take note

One newer industry initiative connects a number of different processors through mail-in collection.

The Done with IT mail-in program, launched a year ago, provides a collection-by-mail service that ITAD firms can join

to garner material. There are currently 24 ITAD firms partnering with the program.

The organization saw a 197% increase in utilization from the first quarter of the year to the second, said Steven Napoli, president and CEO of The Electronics Reuse & Recycling Alliance (TERRA), which administers Done with IT.

"It's potentially a good opportunity for [ITAD firms] to get equipment, especially in places that are very locked down and have been since the beginning of all this," Napoli said. He noted that some of the large-scale consumer-facing device collection options, including Best Buy and Staples, suspended service as the pandemic took hold.

Beyond an increase in firms using the service, Done with IT is seeing a shift in the types of clients looking to the mail-in option. Mail-in has typically been more geared toward the consumer side of electronics recovery, offering individuals without convenient collection options a way to recycle their devices.

That could be slowly shifting as companies across many sectors direct employees to work remotely.

"It's starting to increase a little bit on the business end," Napoli said.

ERI, which offers its mail-in service to both consumer and commercial sector customers and has run the service for eight years, also sees the occasional case in which businesses will use the box program in lieu of on-site ITAD services, Shegerian said.

Future of collection?

For Ingram Micro, mail-in will likely take on greater importance in the months and years to come, said Berry. There's no indication of when the business world could return to "normal," or what that will look like when it happens.

"I do believe the box program is going to be a core component of the future of ITAD," Berry said. "Because ITAD is going to look completely different than it did at the beginning of this year, last year, 2018, 2017.

"2020 and beyond, it's going to be about less touch, and how do you control a less-touch-driven environment to ensure you're managing risk for your customer," Berry continued.

He noted that some companies have transitioned from 75% of employees in the office and 25% working remotely, to the opposite ratio. That means devices are no longer aggregated in a single place.

"These centralized locations, these big offices where they were collecting assets, they don't exist right now," Berry said. "There's no one in these offices, everyone is still working remotely for the most part. So how do we get that asset return, and manage the COVID component of this as well?"

Of particular note is the fact that data security around company assets can become an even bigger concern when employees are working out of the office.

That is one issue processor CyberCrunch referenced this week when it launched a mail-in collection service.

"Our largest clients asked for help managing their remote IT equipment sitting in employees' homes," said CyberCrunch President Serdar Bankaci. "This new program creates a secure, contactless process to dispose of remote company IT equipment in a responsible way."

Bankaci added that "data security is difficult enough when IT assets sit in company facilities. In a work-from-home environment, the risks increase immensely, and so data security practices need to adapt accordingly."

As for the consumer side of the business, Napoli of TERRA sees a future where mail-in options exist alongside physical collection events. On-site collection will always have a place, Napoli said, but it can be complemented by the mail-in service.

"Areas that are really underserved, there's really not many options to do this," Napoli said, noting that in some areas, local collection events occur just once a year. "One of our strategies going forward is to really engage deserts that don't have options."

More stories about collection

- Doorstep e-scrap collection service launches in Philadelphia
- TerraCycle reports on earnings tied to e-scrap
- Texas e-scrap program reports device collection results

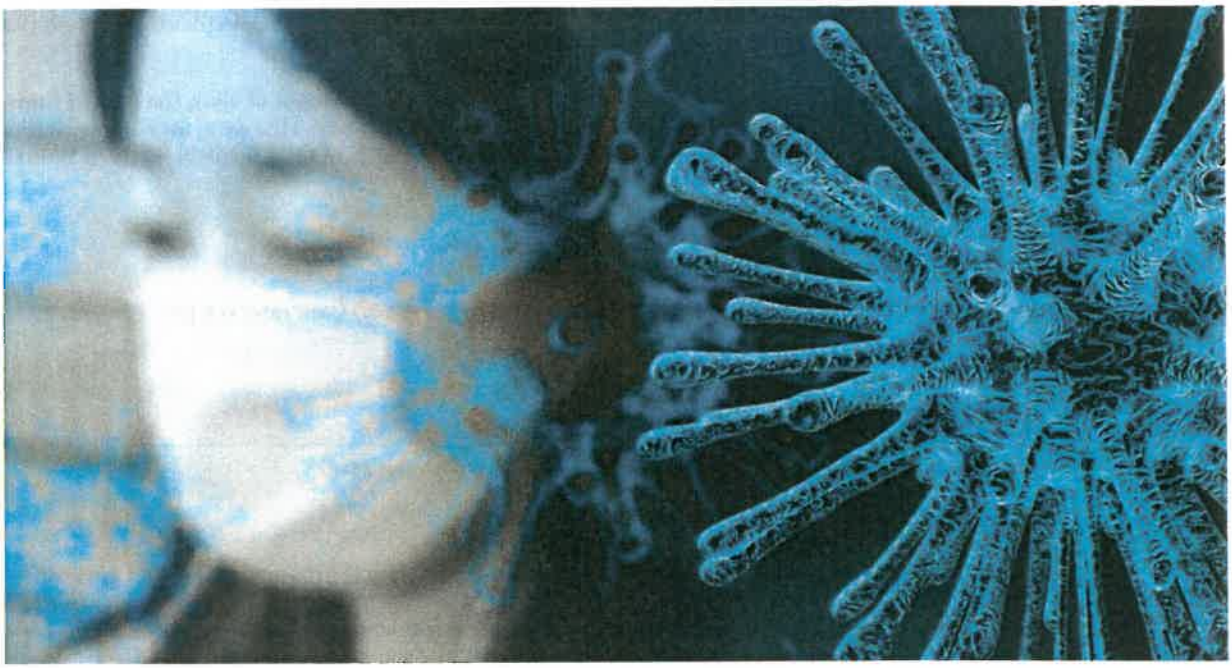
Guest Blog | Medical Waste Treatment Lessons from the COVID-19 Outbreak in Wuhan

- Recycling
- Waste to energy
- Collection and handling
- Biowaste
- Landfill
- Opinion
- Markets and policy
- Events

- Guest Blog | Medical Waste Treatment Lessons from the COVID-19 Outbreak in Wuhan

Mr Gong Wei on What happened in Wuhan during COVID-19 outbreak? 2020-07-17 13:49:59

Mr Gong Wei explores the lessons we can learn about the need for adequate medical waste disposal capacity from the experiences of Wuhan and New York City...



Mr Gong Wei explores the lessons we can learn about the need for adequate medical waste disposal capacity from the experiences of Wuhan and New York City...

In January 2020, many people in Wuhan had symptoms such as fever, fatigue and cough but only some went to the hospital. However, before January 20, nobody knew anything about COVID-19. As the number of patients increased sharply after January 20, hospitalization shortage became quite serious and many patients had to go back home to recover by themselves.

It was a difficult situation. Meanwhile, there was no credible data confirming the number of people that were infected or who had died due to COVID-19 in January because there was no extensive testing at that moment.

From Jan 23 to Feb 11, Wuhan government had officially declared the lockdown of the city, but people could still walk around in the city and meet with others as usual. There were no mandatory policies that restricted people to stay home or keep social distancing.

As a result, the infection continued to expand, and the number of infected cases still grew rapidly. Meanwhile, medical waste growth far exceeded the capability of existing treatment/disposal plants. A large quantity of medical waste piled up in hospitals and could not be disposed of in a timely manner.

From February 11 to March 18, Some Wuhan government officials had been replaced because of their inability

to do the job. The new top management officials of Wuhan government implemented very strict community isolation policies and extensive testing protocols for all people who had fever and cough or had any contact with someone confirmed with Covid-19.

Additionally, within one or two weeks there were tens of thousands of medical personnel headed to Wuhan from other provinces following the government's call. Many people came to Wuhan to build temporary hospitals and necessary facilities including medical waste treatment plants.

The confirmed cases increased significantly after the extensive testing and then gradually dropped after the community isolation policies were strictly executed. The peak of medical waste generation occurred in late February and early March. At that time, one new temporary medical waste plant with 30-ton daily treatment capacity was put into operation, so that medical waste could be treated and disposed of timely.

On April 8, the Wuhan government ended the lockdown but the community isolation policy was still strictly implemented. Residents could go out only to buy necessary items. Most companies gradually returned to full operation. The city was reopening very cautiously. The new generated medical waste dropped steadily to a normal rate. The large piles of medical waste were safely disposed of in April.

It is difficult to get accurate data of confirmed cases and deaths prior to the extensive testing. Nobody knows the exact number of cases before February. However, we did our research to come up with as accurate as possible data.

We contacted more than ten local companies for statistical analysis. Four of the selected companies provide public services in Wuhan city, with around 5,500 employees working in branches throughout the city, and 5100 retirees living in various communities of the city. They work in hospitals, waste plants and communities where they had high risks of infection.

The data could be higher than only ordinarily residents. From a statistical point of view, the data of those four companies could be good to extrapolate the numerical reality in Wuhan city. This data, together with the medical waste data from Gient, which built a facility to treat around 25% of total medical waste in Wuhan city during the pandemic outbreak, is stated as below:

I. Current employees

- Staff: 5,500.
- Infected cases: 35 (including 21 confirmed and 14 suspected cases) Case rate: 0.64%

II. Retirees (elders)

- Number of people: 5100
- Infected cases: 60
- Case rate: 1.17%, including 24 confirmed cases and 36 suspected cases.

III. The extrapolated maximum data of Wuhan city:

- Total population: 9.06 million (1.94 million is over 60) - The data is provided by Wuhan government in November 2019
- Extrapolated confirmed cases: 68,266 - Including: 45,568 from current employees and 22,698 people over 60.

IV. The data of Wuhan published by China government:

- confirmed cases: 50,333

It's estimated from the official data and the medical waste data that Gient got in Wuhan, that the total number of beds in hospitals and clinics were around 90,000, including 54,000 beds in large hospitals, 14,000 used for COVID-19 patients only, and 20,000 in temporary hospitals. All small clinics and healthcare centres had been closed.

Considering that the hospital had other inpatients, the number of total patient visits returned to normal. People staying in quarantine areas for medical observation were not included because it's difficult to get the correct number, but household waste from these quarantine areas was collected and properly disposed of as medical waste.

3. How much medical waste was generated during the pandemic outbreak? How did the local government handle it?

It's also a very difficult question. Some reference data collected from both Wuhan medical waste emergency treatment plant and official sources such as Wuhan Environment Department is listed below:

- Before the pandemic outbreak, the daily medical waste disposal capacity in Wuhan was 50 tons but the average output was around 45 tons. This is the capacity of an incineration plant which normally operated 24/7. There wasn't neither enough reserved disposal capacity nor enough storage capacity for medical waste management.

- After January 20, Wuhan government and China Ministry of Environment found out that the local existing facility could not meet the needs of the rapidly growing medical waste treatment. They asked for the solutions from the experts, such as waste management companies as well as waste disposal equipment manufacturers like Gient. In the following days, dozens of emergency equipment was delivered to Wuhan responding to the call of the local government and the Ministry of Environment. In the meantime, each district was required to quickly build at least one temporary storage facility with over 50 tons capacity. Moreover, one 30 tons/day capacity emergency treatment plant was in the designing process.

- The output of medical waste increased to 110-150 tons per day in mid-Feb when Gient team arrived in Wuhan to build the emergency treatment plant with 30 tons capacity per day. The plant was completed and put into operation by Feb 22.

- The output of medical waste kept increasing and the maximum was up to 247 tons per day on March 1, but it has progressively decreased since mid-March and back to normal in early May.

- The volume of medical waste disposal in the 30 tons/day emergency treatment plant is as follows:
  - January and March: operation at 100% capacity. April: operation at 80% to 90% capacity.
  - May: operation at 50% to 60% but it will be closed by the end of May.

- The changes of medical waste average density in Wuhan during pandemic times:
  - January and March: 67kg/m3
  - April: 77kg/m3; May: 85kg/m3
  - Remarks: the normal average density of medical waste in China was 120 kg/m3. It was decreased because that PPE (personal protective equipment) consumption had increased a lot. This change resulted in significant reduction of disposal capacity of the facilities by weight.

4. Key experience and lessons of medical waste management during COVID-19 outbreak.

I. Adequate reserved capacity of medical waste treatment facilities, highly necessary.

As we have mentioned above, inadequate disposal and storage capacity of existing facilities in Wuhan was the key reason leading to large quantities of piled medical waste in hospitals and clinics. In fact, China (and most developing countries) have a very weak infrastructure for medical waste treatment.

The total disposal capacity of Bondtech autoclaves in New York State and surrounding areas reach a daily processing capacity that exceeds 500 tons/day, which is 10 times higher than that of Wuhan City, while the population of New York State only doubles that of Wuhan.

This capacity does not include treatment facilities in New York with equipment manufactured by other companies. Therefore, the medical waste in Wuhan piled up after the outbreak while New York State was able to handle it properly. Obviously, if the medical waste during the pandemic was not treated promptly and effectively, the consequences would have been catastrophic.

II. We found that the quantity of medical waste generated in New York did not rise but declined during the pandemic. On the contrary, the quantity of medical waste generated in Wuhan increased significantly. It's estimated that the amount of medical waste generated by Wuhan hospital during the pandemic tripled from about 0.7 kg per bed to about 2 kg per bed.

The main reason for the rise is the widespread and massive use of PPE, and the second reason is all the household waste generated in hospitals was treated as medical waste during the pandemic.

The waste from people in hospitals, including doctors and nurses, cleaners wearing protective gowns, as well as the household waste from designated isolation sites were all treated as medical waste for collection and transportation, which resulted in further medical waste volume increase.

However, according to reports from the media, some doctors and nurses in the hospitals in New York did not wear protective suits. From our US counterparts, we learned that a lot of the PPE and household waste from US hospitals was not collected and disposed of as medical waste. This is the main reason for the huge difference in the amount of medical waste generated during the pandemic between NYC and Wuhan. At present, PPE and the household waste of infectious patients are regarded as the medical waste for collection and transportation, which is listed in the latest revised standards in China. Are there any hidden dangers in US practices?

III. Facilities need to be more intelligent and automated relying less on labour. It is an efficient way to

protect labour from infection. On the other side, it is very difficult to employ skilled labour for medical waste disposal during the outbreak. The new treatment plant in Wuhan was manufactured with a fully intelligent and automated system which reduces 90% labour.

IV. Large capacity mobile facilities as a strategic backup for a nation or a state will be highly useful and important for developing countries who do not have adequate medical waste disposal facilities. Obviously, the mobile facility is a high-cost performance solution for countries or regions that have adequate capability of managing medical waste during a pandemic. It could be a part of a national strategic backup capacity in these counties and regions in the future. Not every country or city can have as many medical waste disposal facilities and enough capacity as New York.

V. We do not need to be afraid of COVID-19 virus. It is a normal virus for us if we properly protect ourselves. In fact, there are no further infected cases of doctors and nurses as well as other labourers working for medical waste disposal in Wuhan since March. We just need to use PPE well and pay attention to self-protection. The government needs to make a sound and firm voice. The media needs to bear the responsibility to disseminate correct information to the public. That is enough.

Thanks to my partner Ms. Elsa Brown, President of Bondtech Corporation in USA, for sharing with me relevant information on the treatment of medical waste in New York State during the COVID-19 pandemic and her valuable advices and revision to this article.

About the Author:

Mr. Gong Wei, Chairman of ISWA's newest Silver Member, Gient Heating Industry Co., Ltd., a major manufacturer of medical waste treatment equipment in China. As an invited expert, Gong Wei recently participated in the review of China's latest medical waste treatment standards. During the outbreak of Wuhan from February to April 2020, he personally led the team to Wuhan, and completed the construction of a 30tons/day medical waste emergency disposal plant and another 30tons/day fully automated medical waste disposal plant.

He has the first-hand direct experience in Wuhan's anti-pandemic efforts, and he is also a participant in the emergency treatment plan for medical waste in Wuhan.

For more information about Gient please click here.

SWANA Submits Written Statement to US Senate on Recycling Challenges in Face of COVID-19

- Recycling
- Waste to energy
- Collection and handling
- Biowaste
- Landfill
- Opinion
- Markets and policy
- Events

- SWANA Submits Written Statement to US Senate on Recycling Challenges in Face of COVID-19

Surge in Residential Waste Volumes & Changes in Operational Practices at Waste Facilities Cited 2020-06-26 14:12:41

SWANA has submitted a written statement to the leadership of the U.S. Senate Committee of Environment and Public Works concerning some of the challenges facing recycling in the United States.

The Solid Waste Association of America (SWANA) has submitted a written statement to the leadership of the U.S. Senate Committee of Environment and Public Works (EPW) concerning some of the challenges facing recycling in the United States. This is in conjunction with the Committee's oversight hearing, "Responding to the Challenges Facing Recycling in the United States."

The organisation also noted that, coincidentally, it is also three years since China announced its National Sword program.

SWANA's written statement focused on the impact that the COVID-19 pandemic is having on recycling programs and facilities, noting the decrease in recovered material from commercial customers such as schools, offices, and stores. At the same time, SWANA described how residential waste and recycling volume increased nationwide in March and April, though it has declined from the peak of about twenty percent higher than normal.

Other impacts identified in SWANA's written testimony included operational changes at recycling facilities to keep workers safe, the temporary suspension of some curbside collection programs, and additional personal protective equipment provided by employers in response to concerns about exposure expressed by front-line workers.

"We are pleased to provide SWANA's perspective on the current challenges facing municipal and private sector recycling programs, including the impacts of COVID and continued concerns about contamination. We have been working closely with Congress, EPA, and other recycling stakeholders on these issues, and look forward to continuing to do so in the months to come," commented SWANA Executive Director & CEO.

Full Statement
Dear Chairman Barrasso and Ranking Member Carper:

The Solid Waste Association of North America (SWANA) appreciates the opportunity to provide this testimony to the Environment and Public Works (EPW) Committee concerning the challenges facing recycling in the United States. SWANA is the largest professional association for the solid waste and recycling industry in the United States, with more than 10,000 members in 47 chapters. We are committed to advancing from solid waste management to resource management. Our members include both local government officials and private sector representatives.

This week marks three years since China announced its National Sword program, which has had a dramatic impact on recycling programs in the United States and elsewhere. Under National Sword, China has imposed significant restrictions on the import of recyclables and scrap. Because the United States about twenty-five percent of these recovered materials to China, nearly 17 million tons per year, local governments, recycling facilities, and scrap processors have been forced to find other markets for much of the paper, metal, and plastic that we recover from the waste stream. A lack of domestic processing facilities, along with other countries following China's lead in reducing imports of recyclables, have made this challenging.

Among the impacts of National Sword was a decrease in the value of recovered materials. With our largest export destination reducing its demand, prices for recovered paper and plastic declined. Prices leveled off in late 2019 and some commodity prices were increasing in early 2020, but the COVID-19 pandemic has had a very significant impact on the recycling supply chain, including pricing. The emergency orders issued by numerous states closing industrial and commercial facilities such as schools, offices, and stores meant that recovered paper generated at these locations was no longer available. This affects manufacturers who rely on recovered paper in their operations. For example, recovered office paper is a substantial source of feedstock for the manufacturing of toilet paper. If you're wondering why so many stores were out of toilet paper in the early weeks of the COVID-19 pandemic, the disruption of the recycling supply chain was a major contributor.

At the same time, with many more Americans working from home, we have seen an increase in the volume of waste and recyclables generated from the residential side of the industry. Unfortunately, residential recyclables typically have a higher contamination rate than commercial recyclables. Contamination refers to non-recyclable material that is placed in a recycling bin, such as plastic bags, diapers, holiday lights, or bowling balls. One of the serious challenges that U.S. recycling programs and facilities face is the high level of contamination in the residential recycling stream, which increases costs and disrupts operations.

Because residential waste and recyclable volumes spiked upwards in March and April, some local governments temporarily suspended their curbside recycling collection programs to make sure that all of the trash was collected and managed properly. SWANA estimates that in late April, residential waste volumes peaked nationally at about twenty percent higher than normal, with some communities experiencing increases of more than thirty percent. This stressed many residential solid waste collection systems, although as businesses have started to reopen over the past month, we've seen a decline in volume on the residential side from the peak. As a result, most communities that suspended curbside recycling programs have reinstated them.

A second COVID impact was operational changes at recycling facilities. A typical modern recycling facility often includes workers working on either side of a conveyor belt picking materials off the belt. These workers are usually very close to each other. Our members have had to change processes, including installing plexiglass separators between employees or mandating social distancing, and providing additional personal protective equipment, which has increased costs. A handful of recycling facilities temporarily closed to make these changes, although most have reopened.

A third impact has been increased concerns by front-line recycling collection and processing workers about exposure to the COVID-19 from the materials they were collecting or processing. According to one report, the virus can live on cardboard for up to twenty-four hours and on certain plastic and metal for up to three days. Recycling collection workers touch cardboard every day on their routes, as they place boxes from e-commerce and stores placed at the curb into the truck. SWANA has provided guidance to employers, employees, and the general public about steps they can take to reduce the potential for exposure, and although employers in the industry have provided gloves, facial coverings, and other personal protective equipment (PPE) to protect against exposure, these concerns continue.

A fourth and final impact of COVID-19 has been a delay in Congress' consideration of legislation that would support American recycling programs and systems. This delay is entirely understandable, as the House and Senate have focused appropriately on responding both to the pandemic and the resulting adverse economic impact. In the months before COVID-19, several bills were introduced that would support recycling, including the Save Our Seas 2.0 Act, the RECOVER Act, the RECYCLE Act, and the Break Free from Plastic Pollution

Act. In January 2020, Save Our Seas 2.0 was approved unanimously by the Senate, and awaits consideration in the House. SWANA strongly supports this bill, which in addition to addressing marine litter and

pollution, provides money to local governments and others for recycling education. SWANA also supports the RECOVER and RECYCLE Acts. With local governments under unprecedented budgetary pressure, federal support for municipal recycling programs is more important than ever. Just like roads and bridges, recycling is part of America's essential infrastructure, providing hundreds of thousands of jobs and billions in tax revenue, as well as protecting the environment and reducing greenhouse gas emissions.

SWANA's work to help the industry overcome the current challenges facing recycling programs has continued despite the impact of COVID-19. For example, next week, SWANA is holding a major technical conference (virtually), and we have many sessions on recycling, including a session featuring EPA and industry leaders discussing both the challenges and opportunities our industry is facing. EPA will be providing an update on its America Recycles initiatives, including its work towards announcing new national recycling goals later this year. In November 2019, at its America Recycles Day Summit, EPA Administrator Wheeler announced that the agency would propose such goals in Fall 2020. We urge this Committee, Congress, and other stakeholders to hold the Agency to that commitment. National recycling goals will galvanize private investment in our recycling infrastructure and focus public attention on this important topic.

Finally, SWANA notes this is National Waste and Recycling Workers week. This is a week in which the waste and recycling industry and local governments recognize the great work that these hard-working men and women do, every day, collecting and processing our trash and recyclables. SWANA urges all Americans to be thankful to waste and recycling workers for the amazing job they are doing keeping our communities and neighborhoods safe and clean, especially during the COVID-19 pandemic. In a recent letter to SWANA, Maryland Governor Larry Hogan, who chairs the National Governors Association, thanked both SWANA and "waste collectors, recyclers, drivers, engineers, technicians" and others who have provided the essential service of waste and recycling during the pandemic. We couldn't agree more. This Committee can support the remarkable work that these employees are doing by: (1) providing financial support to local recycling programs; (2) urging EPA to issue national recycling goals; and (3) making sure that America's recycling workers receive appropriate personal protective equipment and COVID-19 testing to they can safely continue to turn our discarded materials into new useful products.

SWANA appreciates the opportunity to provide this testimony, and looks forward to working with the Committee, EPA, and others to strengthen recycling in the United States.

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Why the pandemic could slash the amount of plastic waste we recycle

A startup in Lagos, Nigeria hopes to help manage the recent deluge of plastic waste. EPA-EFE/AKINTUNDE AKINLEYE

The COVID-19 pandemic has increased the use of plastic medical and protective equipment, such as single-use gloves, masks and aprons. Much of this equipment must be discarded after use to limit the spread of the virus.

But demand for plastic packaging has also spiked in the retail sector, as customers wary of catching the virus shun loose products. Elsewhere, people are using antibacterial wipes and bottles of hand sanitiser at a rapid rate, with some worrying that discarded "COVID waste" could soon outnumber jellyfish in the Mediterranean Sea.

The market for plastic packaging is projected to grow by 5.5% in 2020, causing a surge in the amount of waste being sent for recycling. But just when its services are needed more than ever, the recycling industry has been rocked by crises.

The future of plastics recycling

International travel and industrial activity dried up with the onset of global lockdowns, causing oil demand and prices to plummet. Since most plastic is made from oil, its falling price has meant the cost of plastic resin production has dropped too, making it cheaper than ever to manufacture new plastic products.

Amid a glut of cheap virgin plastic, petrochemical companies could end up churning out even more to stabilise the demand for crude oil. That would make using recycled plastic material economically foolish, as it would contribute to the oversupply haunting the market. With demand for recycled plastic at a record low, the recycling industry may be left with fewer and fewer buyers.

A drop in demand for recycled plastic material would cut into the profit margins of recycling companies. Lower revenue will delay investments in new plants and technologies and limit how effectively the system can improve recycling rates.

***Read more:** Rubbish is piling up and recycling has stalled – waste systems must adapt*

For waste management and recycling companies to turn a profit, the taxpayer would have to bear a greater share of their costs. But will this added burden go down well post-pandemic, with cash-strapped local authorities and widespread redundancies?

The UK government has now pushed back the ban on single-use plastic items from April to October 2020, to ensure supply chains have enough time to source alternative materials for straws, stirrers and cotton buds. If this delay affects the planned implementation of a plastic packaging tax on products with a recycled material content lower than 30%, currently pegged for April 2022, these twin setbacks could threaten the UK's goal to eliminate all plastic waste by 2043. Businesses would revert to using virgin plastics with little incentive to opt for more expensive recycled materials.

Rescuing the industry

A coordinated effort between governments and the industry could maintain recent progress on recycling rates. Pushing ahead with the ban and new taxes could ensure businesses continue funding the recycling of plastic packaging waste, and using it in the new products they make.

If businesses stick to their targets of replacing some of their virgin plastic material with recycled plastic, regardless of the costs involved, it could help maintain investment in the recycling sector within the UK. But with more plastic waste being treated domestically amid reduced demand for waste in foreign markets, recycling companies in the UK could be overwhelmed with waste they have little financial incentive to process.

***Read more:** Recycling: poorer countries can now refuse plastic waste imports – this could make the system fairer*

Recycling companies and exporters of plastic packaging waste under pressure to deal with more of it may ship it to other countries illegally, or falsely claim they have recycled a higher amount. This information is self-reported, leaving regulation vulnerable to fraud.

And then there's you, the consumer. We each drive demand for single-use

plastic packaging with our buying habits, and we can reduce it and increase recycling rates by purchasing wisely and checking whether the packaging we discard is recyclable or not.

Unwittingly, we bear a significant proportion of the cost of the recycling process via the council taxes we pay. That money can be used to improve services if the burden of waste management is lower. Reduced demand for plastic packaging and better sorting of household waste can, collectively, lead to a more effective and cost-efficient recycling system.

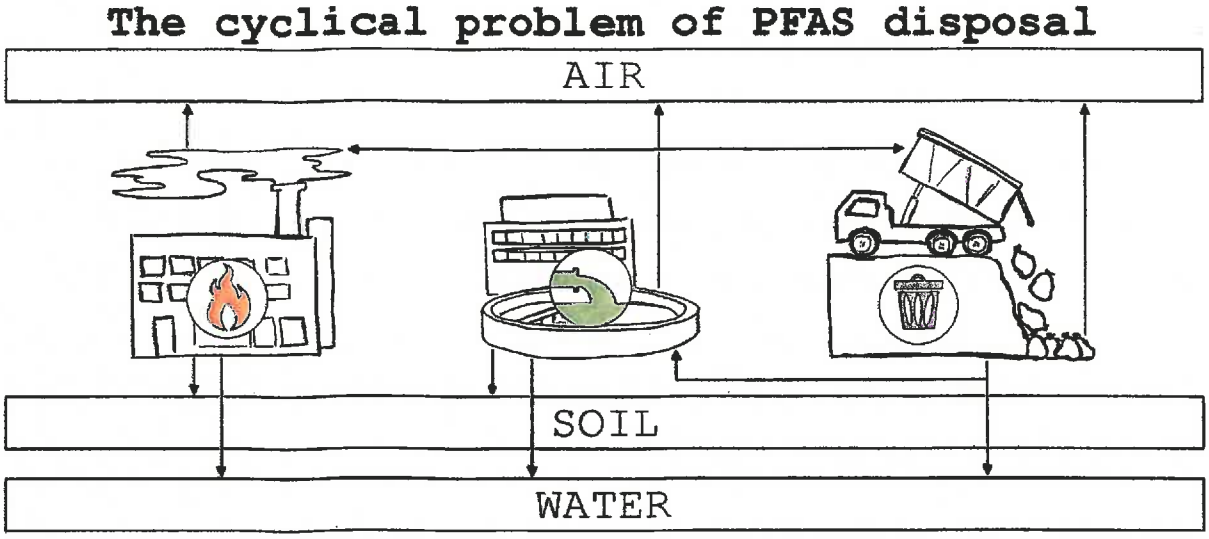
Buying less goods that come with unnecessary plastic packaging, and becoming more mindful of how we separate our plastic waste in the home will improve the efforts of local authorities and the recycling industry, and could also improve the odds that the government meet its ambitious recycling targets on time.

The Conversation

The authors do not work for, consult, own shares in or receive funding from any company or organisation that would benefit from this article, and have disclosed no relevant affiliations beyond their academic appointment.

Waste 360

NEED TO KNOW



Study: Disposal of PFAS Waste Increases Contamination

Jul 16, 2020

WASHINGTON – In a study published in the peer-reviewed journal *Chemosphere* , scientists at the Environmental Working Group conclude that burning, discarding and flushing waste containing the

toxic fluorinated chemicals known as PFAS all contribute to environmental contamination. The three standard practices for waste management outlined in the review – landfilling, wastewater treatment and incineration – do not effectively contain or destroy PFAS.

"The three common 'disposal' options for getting rid of PFAS do not eliminate these contaminants but rather end up just returning either the same chemicals or their byproducts back into the environment," says Tasha Stoiber, Ph.D., EWG senior scientist and primary author of the study. "PFAS disposal is really just another step in the contamination cycle."

Communities with contaminated water supplies increasingly look to PFAS treatment technologies, but every technology produces PFAS-laden waste. With current disposal options, the concentrated PFAS likely returns to the environment, to require removal once more. As the need to dispose of this waste grows, handling of PFAS waste at disposal sites has received more scrutiny.

PFAS are discharged by industrial facilities, released by airports and military bases using PFAS-containing firefighting foams, and sent to landfills or flushed down drains following their use in a multitude of consumer products. Vast stores of legacy firefighting foam are being sent to incinerators that are suspected of spreading the contamination to local communities. In the absence of federal regulations, PFAS receive no special treatment during the disposal process. There is no requirement to monitor for PFAS in waste streams. Contamination moves from site to site as a result, contributing to the ever-increasing list of contaminated communities.

Mapping the full PFAS contamination cycle, including what happens after disposal, is of critical importance. PFAS are called "forever

chemicals" because they never break down in the environment and could move through the cycle indefinitely. These chemicals might suppress the immune system and are associated with cancer, reproductive and developmental harms , and reduced effectiveness of vaccines , among other health problems.

"The disposal of PFAS can cause environmental pollution, which disproportionately affects people and communities near the waste disposal sites," says Olga V. Naidenko, Ph.D., vice president for science investigations at EWG. "States, the EPA and waste management companies must take strong action to protect fence-line communities from harmful exposures to PFAS."

The paper concludes with six measures for addressing the PFAS problem:

- Limiting the use of PFAS to essential applications in order to reduce industrial discharges.
- Protecting the health of fence-line communities through strong public health policies.
- Capturing all liquid wastes from landfills and keeping them on site what leaches from the treating landfill.
- Monitoring PFAS contamination at and near disposal sites.
- Researching PFAS incineration to address current data gaps.
- Researching advanced remediation technologies to generate new waste management solutions.

###

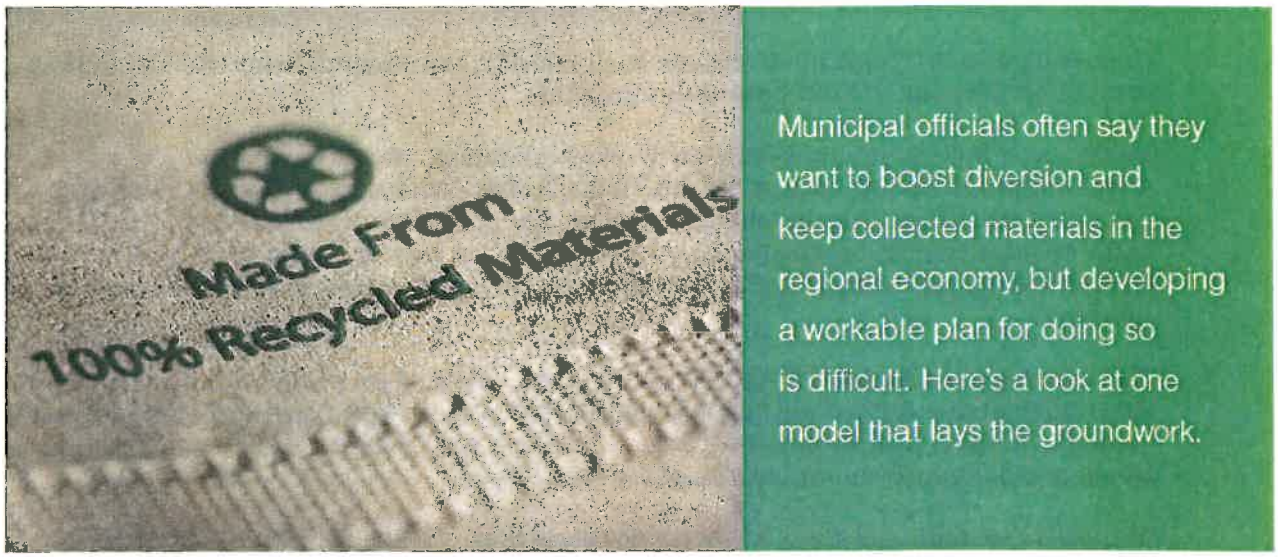
The Environmental Working Group is a nonprofit, non-partisan organization that empowers people to live healthier lives in a healthier

environment. Through research, advocacy and unique education tools, EWG drives consumer choice and civic action.

Source URL: https://www.waste360.com/pfas-pfoas/study-disposal-pfas-waste-increases-contamination

The local approach - Resource Recycling News

Kevin Dooley, Jacob Bethem, William Campbell and Carole Mars



This article appeared in the May 2020 issue of Resource Recycling. Subscribe today for access to all print content.

This is the first in a series of articles called "Steps to Circularity" that will explore a variety of different projects and viewpoints connecting the business of recycling to the wider circular economy movement.

Municipalities face challenges when trying to provide value through their waste management services. There is increasing pressure on communities to divert as much waste from landfill as possible, and local officials are also tasked with measuring and communicating their waste diversion performance to citizens and city government.

Today, in addition to fulfilling their traditional sanitation mission, municipal public works organizations are also expected to do business development, as residents and the local government expect them to create revenue and jobs for the city.

With these factors in mind, the city of Phoenix recently recently established the "Reimagine Phoenix: Transforming Trash into Resources" initiative in support of its goal to divert 40 percent of its waste away from landfill by 2020.

In order to explore different ways of measuring and communicating waste diversion and recycling success to the City Council and residents, the Phoenix Public Works Department partnered with the Rob and Melani Walton Sustainability Service and The Sustainability Consortium at Arizona State University to perform research on diversion metrics.

As part of that effort, the research team created a conceptual framework to help identify the steps that a city could take to improve waste diversion and recycling – or more generally, to become more of a circular economy in which we move away from the current linear model of make-use-dispose.

This article describes our "5S Model" for circularity in a city, which boils down to five

tenets: support, serve, sort, save and sell.

It is a simple framework that communicates what a city can do to create a more circular economy. It can also be used to help a city plan its strategic waste management goals and actions; to identify strengths, weaknesses opportunities, and threats in existing programs; and to serve as a template for measuring circularity success.

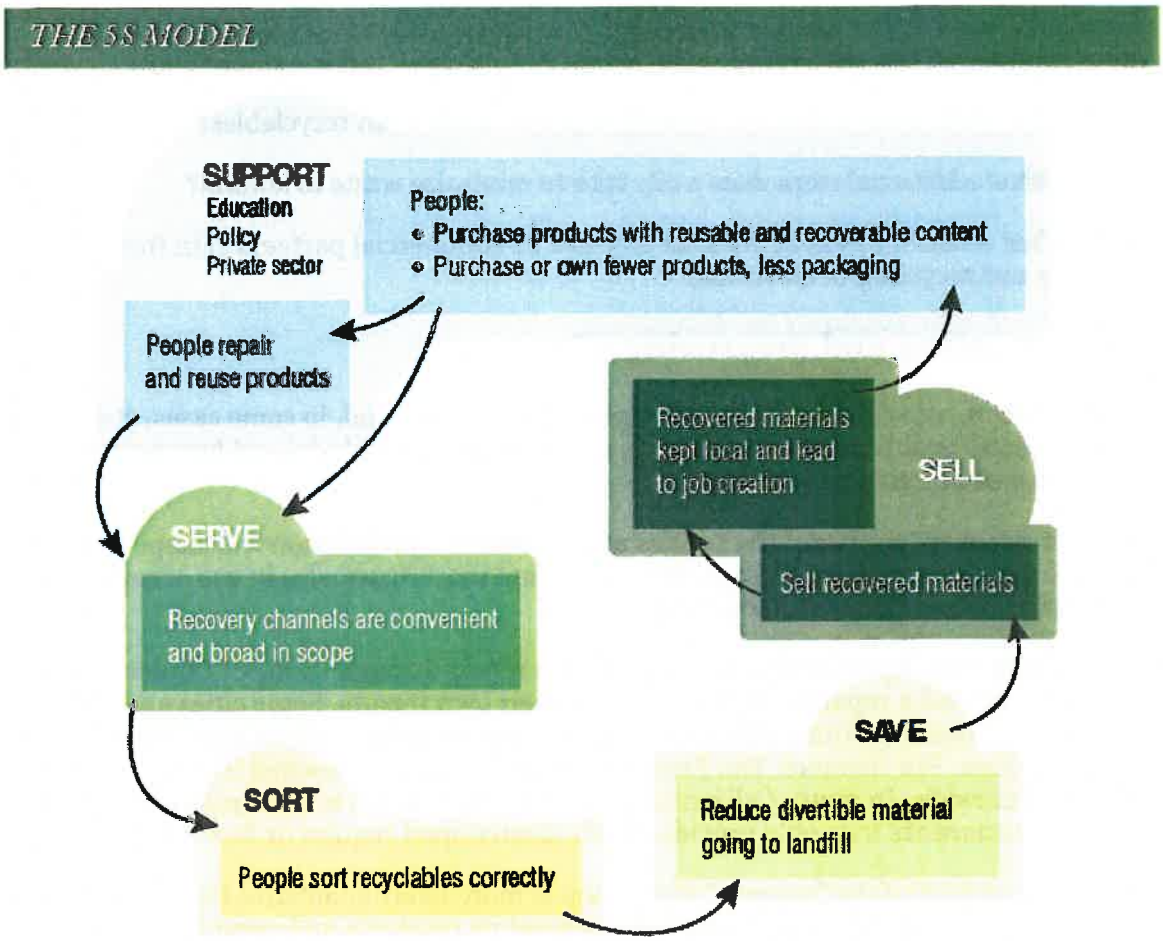
Taking cues from world of public health

In seeking ways to think about success in circularity, our research team was inspired by the United Nations' UNAIDS 90-90-90 program.

AIDS is a complex and nuanced issue in which planning, measurement and communication are key factors. Traditionally, health care leaders articulate goals and progress with difficult-to-understand metrics, like mortality rates. UNAIDS identified a pathway to success for managing and treating AIDS. A person has to: (1) know they have HIV/AIDS, (2) get treated, and (3) get better. If all three happen, a successful outcome is achieved.

This campaign led to the UNAIDS 90-90-90 goal – 90% of people living with HIV will know their status; 90% of those infected with HIV will get treatment; and 90% of those treated will have viral suppression. It gave planners and leaders a simple way to think about and communicate what was needed for success.

We asked the same question: What are the steps that, if taken, will lead a city to be more successful in creating a circular flow of materials? Our 5S Model, shown in the figure below, is formulated around those steps.



A model for circular success

Not to be confused with "5S" from lean manufacturing, our 5S Model suggests that circularity can be achieved by way of a clear path that takes into account a handful of important realities.

City residents have their own role in making a city more circular. First, they can purchase products with reusable or recoverable content. Second, they can purchase or own fewer products or purchase products with less packaging, which reduces waste. Finally, they can repair, refurbish and reuse the products they own.

Meanwhile, the city and its commercial partners need to provide convenient recovery channels for the recyclable material to be collected, and residents need to correctly sort their waste from recyclables. The city can also engage in additional activities that recover materials bound for landfill after being disposed by residents.

Finally, recovered material can be sold for revenue. If recyclers or remanufacturers are local, then it can also lead to local job creation.

The 5S Model takes those basic facts of material use and recovery and outlines five distinct areas where a municipality can take clear action.

Support: What can the city do through education, policy or public-private partnership that can help residents purchase reusable, repairable and recyclable products and packaging?

Serve: To what extent has a city provided convenient and easy-to-use channels for recovering recyclable materials?

Sort: How well do residents successfully separate trash from recyclables?

Save: What additional steps does a city take to minimize waste to landfill?

Sell: What economic benefit does the city and its commercial partners gain from recovery and recycling of materials?

Implementing and measuring 5S

In this section, we will share some examples of how cities (and, in some cases, state governments) have implemented various elements of the 5S Model and how performance can or cannot be easily measured.

When it comes to "support," the politics and culture of a jurisdiction will shape to what extent it can drive regional change. Some cities are more aggressive in use of regulatory power or collaboration with the private sector.

For example, the city of Austin, Texas promotes repair through its Fix-It Clinics, where residents can find a repairer or learn to make their own repairs. Some cities and states have used financial (dis)incentives to reduce use of unwanted materials or to encourage their collection. For instance, San Francisco's plastic bag ban, enacted in 2007, is now effective statewide. In 2020, California has also made it illegal to offer plastic straws by default. Restaurants may only provide plastic straws upon request or face a $25 fine.

The measurement of the "support" dimension is more likely qualitative than quantitative. From 2001 to 2008, however, California surveyed its residents and organizations to measure landfill diversion. Activity such as use of e-billing or composting yard waste was counted toward an overall landfill diversion rate.

Moving to "serve," cities can make it easier or harder for residents to get recyclables successfully into a formal recycling stream. For example, San Francisco offers residents a free compost pail, free home hazardous waste pick-up, and a free program geared toward collection of medical waste and syringes. Medford, Mass., meanwhile, utilizes a pink bag for curbside clothing collection. And Boulder, Colo. created a Center for Hard-to-Recycle Materials (CHaRM) for electronics, a variety of plastics and miscellaneous materials such as concrete.

In order to measure the "serve" dimension, a city has to take into account the convenience of their programs. Is curbside pick-up the only channel to be considered convenient, or does a bin at a local shopping mall count? How far do residents have to travel to get to a specialty recovery facility for materials such as electronics or organics? Measurement of "serve" also requires the city define what materials are considered recyclable and whether it matters if the channel is being offered through a private entity, such as a service that picks up used carpet or building materials.

A number of possible actions fall into the "sort" section. Research shows that educating residents as to what can and cannot be recycled is a key driver of improving the sorting that residents do. In Phoenix, an auditing process is used to see how much contamination is in a household's recycling bin, and the resident either gets an "Oops" or "Shine On" sticker for the outcome.

Success in the "sort" dimension is typically measured by two rates – percent of recyclables that contain non-recyclables, and percent of non-recyclables that contain recyclables. Most cities or commercial partners pay more attention to the first metric, as

this impacts the quality of recovered material, the cost to remove contamination, and the market price obtained for the recovered material. As with "serve," measuring "sort" requires a city to define what materials are considered recyclable in order to calculate rates. Planners also must determine whether to include bulk recyclables (carpet and e-scrap, for instance) or organics as part of the accounting.

This brings us to what cities can do to "save" additional tonnages from going to disposal. In Phoenix, the city has implemented a common-sense practice: If operators within the transfer station see a large heap of yard waste, they can extract it and send it instead to the organics composting stream.

For more information on the 5S Model and the wider effort in Phoenix to advance a local circular economy through the ReImagine Phoenix project, go to phoenix.gov/publicworks/reimagine.

Technological advancements could create more opportunities for more "save" actions. Last year, for instance, a sortation pilot project was established in Portland, Ore. to study the possibility of recovering mixed plastics from loads of residue at regional MRFs. The practice of landfill mining is also a strategy that has been discussed in different areas across the globe.

Finally, there is the need to "sell" the benefits of materials recovery to the wider community. The recent collapse of the recycling markets has decreased revenue for cities and commercial partners, making it harder for cities to justify continued operation of recycling. For that reason, it is important for cities to consider ways to change the dialogue from measuring revenue from commodity materials sales to measuring benefits like the number of jobs created through local remanufacturing. For example, in a recent report the National Resources Defense Council estimates that achieving a 75 percent recycling rate in California has the potential to create at least 110,000 additional recycling jobs.

The path to progress

A city can become more circular in its materials by (1) supporting the local circular economy through education, policy and public-private partnerships, (2) serving residents with convenient channels for material recovery, (3) educating residents how to sort materials correctly, (4) taking action to maximize recovery of recyclables or compostables, and (5) selling the recovered material for revenue, ideally locally so local jobs are created.

Kevin Dooley is chief scientist of The Sustainability Consortium and Distinguished Professor of Supply Chain Management in the W. P. Carey School of Business at Arizona State University. Jacob Bethem is a visiting assistant professor of sustainable

business at the University of Redlands. William Campbell is a project manager at the Rob and Melani Walton Sustainable Solutions Service at Arizona State University. Carole Mars is director of technical development and innovation at The Sustainability Consortium.

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Judge's ruling means plastics initiative likely going to voters - Plastics Recycling Update

Jared Paben

A proposed California ballot measure would direct CalRecycle to charge producers up to a 1-cent fee for each single-use plastic package sold into the state. | RaksyBH/Shutterstock

A California court has given proponents of a California plastic waste initiative more time to gather signatures, all but assuring it will make the ballot, according to supporters.

The proposed statewide initiative was submitted last fall by Recology CEO Michael Sangiacomo and two prominent environmentalists. It directs the California Department of Resources Recycling and Recovery (CalRecycle) to charge producers up to a 1-cent fee for each single-use plastic package sold into the state.

The act requires CalRecycle to use the money to reduce costs related to recycling and composting for local governments and ratepayers. Among other initiatives, the funds would also be used to develop long-term incentives to support recycling and composting and to support the increased use of recycled materials in new products.

Additionally, the act directs CalRecycle to mandate packaging reusability, recyclability or compostability; ban certain packaging, such as EPS food-service containers; prohibit the use of virgin plastic in some instances; require recycled content; impose deposit systems and retailer take-back requirements; impose labeling and marketing requirements; and more.

According to a press release, a Sacramento County Superior Court judge gave supporters of the initiative more time to gather signatures, "essentially guaranteeing" the proposal will qualify for the state general election ballot, likely in November 2022. The release was published by Arianna Z. Smith Public Affairs, which is working on behalf of environmental advocacy group Californians Against Waste.

The initiative was submitted to state officials in November by Sangiacomo, Caryl Hart and Linda Escalante. Hart and Escalante are both members of the California Coastal Commission.

The initiative backers must gather at least 623,212 valid signatures from registered voters to qualify for the ballot; however, around 30% are generally invalidated for a variety of reasons, so initiative campaigns effectively have to

gather considerably more than the minimum. In this case, they estimate they need 890,000 signatures, according to Judge James Arguelles's July 2 tentative ruling.

Between Jan. 8 and mid-March, they spent $3.4 million to gather 789,943 signatures. Then, during the week of March 15-21, local and state authorities imposed shelter-in-place orders to slow the spread of coronavirus. Because signatures are usually gathered face-to-face in public places, the order meant supporters weren't able to gather enough signatures by the June 24 deadline to make the November 2020 ballot.

Their fallback plan, to qualify the initiative for the November 2022 ballot, required collecting about 890,000 signatures by July 6. After it looked unlikely they'd be able to hit that deadline given difficulties gathering signatures during a pandemic, Sangiacomo and others filed a court petition asking for an extension. In his July 2 order, Arguelles gave them until Sept. 28, 2020 to turn in the signatures.

"Voters will now have the opportunity to take meaningful action to reduce unnecessary, costly, and harmful overuse of plastics," Sangiacomo stated in the press release.

A version of this story appeared in Resource Recycling on July 7.

More stories about California

- California reinstates bag ban and PCR requirements
- Pause on bag law is a hit to some recyclers
- How much recycled plastic do California bottlers use?