Rural Counties
Environmental Services
Joint Powers Authority

ESJPA

Board of Directors Meeting

Thursday
October 15, 2020
9:00 A.M.

1215 K St., Suite 1650
Sacramento, CA 95814
916-447-4806
****Meeting to be held virtually via Zoom****

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, October 15, 2020 9:00 a.m. – 2 p.m.

In accordance with Executive Orders N-25-20 and N-29-20, the October 15, 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 October 15, 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/98317657264
Enter Password: 567659

2. Call-in and listen to the meeting:
Dial (669) 900-9128
Enter meeting ID: 983 1765 7264
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, October 14th 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 August 13, 2020 **(ACTION)** – Supervisor Michael Kobseff, ESJPA Chair *(pp 2-9; 5 minutes)*

B. Review and approval of the 2021 Meeting Schedule **(ACTION)** – Staci Heaton, ESJPA Program Manager *(pg. 10; 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 **Page 11**

A. Landfill Postclosure and Corrective Action Issues – Michael Wochnick, Senior Waste Management Engineer, CalRecycle and Richard Castle, Research Data Supervisor, CalRecycle *(pp 12-21; 20 minutes)*
B. Statewide Commission on Recycling Markets and Curbside Recycling Update – Tedd Ward, Del Norte Solid Waste Management Agency *(pp 22-29; 20 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 *(10 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 30**

Discussion and possible action related to the following:

A. Governor's Emergency Proclamation on Wildfire Debris and Cleanup – Staci Heaton and Larry Sweetser, ESJPA Consultant *(pp 31-46; 10 minutes)*

B. CalRecycle
   - SB 1383 Short-Lived Climate Pollutant Regulations–Mary Pitto, RCRC Regulatory Affairs Advocate and Larry Sweetser *(pp 47-91; 10 minutes)*
   - AB 901 Recycling and Disposal Reporting Regulations – Larry Sweetser *(10 minutes)*
   - Mattress Recycling Council Proposed Budget and Annual Report – Leigh Kammerich, RCRC Regulatory Affairs Specialist *(pp 92-94; 5 minutes)*
   - Illegal Dumping Technical Advisory Committee Update- Larry Sweetser *(pp 95-99; 10 minutes)*

C. California Air Resources Board
   - Advanced Clean Fleet Rule – Staci Heaton *(pp 100-118; 5 minutes)*

D. State Water Resources Control Board
   - Waste Discharge Fees – Larry Sweetser *(pp 119-138; 5 minutes)*

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

F. Extended Producer Responsibility
   - California Product Stewardship Council Update – Joanne Brasch, Special Projects Manager, 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)*

G. Calculating Landfill Liability/Financial Assurance

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

I. Highlights of August and September CalRecycle Meetings – Larry Sweetser *(pp; 5 minutes)*

J. Other Regulatory Announcements/Issues of Interest
   - Cal EPA CUPA Newsletters *(pp 139-153)*

VIII. Agenda Suggestions, Member County Presentation Volunteer, Workshop Topics for Next ESJPA Board Meeting Scheduled Thursday, December 10, 2020.

IX. Articles of Interest **Page 154**
(pp 155-183)

X. Adjournment

Pre-TAG Session BREAK *(10 minutes)*

12:10 PM

Technical Advisory Group Breakout Session

Navigating Current Regulatory Enforcement Efforts

Staci Heaton, ESJPA Program Manager, Larry Sweetser, ESJPA Consultant, Mary Pitto, RCRC Regulatory Affairs Advocate

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, August 13, 2020

VOTING MEMBERS PRESENT

Jeff Gardner	Amador County
Tedd Ward	Del Norte County
Lori Parlin	El Dorado County
Ed Delgado	Imperial County
Lars Ewing	Lake County
Sam Cerveny	Mariposa County
Justin Nalder	Mono County
Lee Adams	Sierra County
Michael Kobseff	Siskiyou County
Rachel Ross-Donaldson	Tehama County
Diane Rader	Trinity County
Gretchen Olsen	Tuolumne 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
Mary Pitto, Regulatory Affairs	RCRC Governmental Affairs

GUEST SPEAKERS

Joaquin Wright	CalRecycle
Curt Fujii	Fujii Civil Engineering
Marshalle Graham	CalRecycle
Julie Trueblood	CalRecycle
Michael LaRussa	Mattress Recycling Council
Daria Kent	PaintCare

OTHERS IN ATTENDANCE

Craig Cissell	Butte County
Valerie Meza	Butte County

Greg Stanton	El Dorado County
Mark Moss	El Dorado County
Heidi Putnam	Plumas County
Madison Bible	Shasta County
Tom Ramont	Shasta County
Jason Ledbetter	Siskiyou County
Paul Freund	Tehama County
Spencer Fine	CalRecycle
John Duke	CalRecycle
Alex Souza	CalRecycle
Melissa Vargas	CalRecycle
Ward Danner	CalRecycle
Kyle Pogue	CalRecycle
Pinar Kose	CalRecycle
Jill Larner	CalRecycle
Jennifer Duran	Mattress Recycling Council

MEMBERS NOT REPRESENTED BY VOTING DELEGATES
Alpine, Butte, Calaveras, Colusa, Glenn, Inyo, Lassen, Madera, Modoc, Nevada, Plumas and Shasta counties.

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

At 9:03am the meeting was called to order, a roll-call was made and quorum was determined.

II. Business Matters

A. Approval of Minutes from the Meeting of June 25, 2020

Approval of the minutes was moved by Tedd Ward, Del Norte County and seconded by Rachel Ross-Donaldson, Tehama County.

III. Public Comment

No public comments were made.

IV. Presentations

A. Road Repair and Civil Engineering using TDA and the CalRecycle Grant program

Joaquin Wright, Environmental Program Manager, CalRecycle gave a presentation of road repair projects using tire-derived aggregate (TDA) and available grant opportunities in civil engineering applications, including sharing a video on TDA and its various uses. TDA is a solution that is cost-effective solution that is also lightweight, highly permeable, and durable. Eight sites in Tuolumne County were

highlighted as example applications. The minimum amounts allowed under the grants for roads is 500 tons or about 750 cubic yards.

The CalRecycle grant program has a maximum award of $350,000 and provides 24 months of reimbursable expenses such as TDA material, transportation, installation, and design work. Applications are due November 2020 and January 2021, see www.calrecycle.ca.gov/Tires/Grants/TDA.

Tedd Ward, Del Norte County, asked if TDA could be used for odor abatement on composting facilities, and Mr. Wright responded that it hasn't come up as a potential use in an application. Mr. Ward continued that he was encouraged by the use of gabions to contain the material should a roadway potentially fail.

Justin Nalder, Mono County, asked about TDA minimums for projects and sourcing materials. Mr. Wright answered that there are minimums depending on the project type. For example, a 500-ton minimum for road repair projects. Further, there is a list of four suppliers on CalRecycle's website.

Larry Sweetser asked if projects have to be predetermined or if you can stockpile the material. Mr. Wright said at least 50% of the design plan must be identified, but welcomed conversations between potential grantees and CalRecycle.

B. Trust Funds: Things to Consider

Curt Fujji, Consultant, gave an overview of trust funds and how to consider their use for closures, post-closure maintenance, third party operating liability, and/or corrective action. There are pros and cons. For example, cash in a trust fund is generally conservative and safe. However, they can also tie up cash, not keep up with inflation, and using the money can be restrictive. In general, he cautioned against the use of trust funds for use for landfill closure and postclosure financial assurances.

Rachel Ross-Donaldson countered that there is an opportunity do a phased closure. Tedd Ward told of his experience where pledge revenue was an effective option versus the hoops of a post-closure trust fund for corrective action requirements.

C. Report from CalRecycle

Marshalle Graham, Senior Environmental Scientist, gave a status update of SB 1383 which is still being prepared for approval to the Office of Administrative Law (OAL), which may be submitted by the end of August. OAL has 120 days to approve but has committed to expedite the approval timeframe. Until it is approved, model tools are postponed, such as model franchise agreements and other related ordinances. In the meantime, CalRecycle has released a compliance guidance document that outlines CalRecycle's discretion in implementation.

Further, Ms. Graham noted that electronic annual reports (EAR) are ongoing. Should have finalized data from the new Recycling and Disposal Reporting System (RDRS) soon for entering into the EAR for jurisdictions.

The following update of open grant or payment cycles were provided:

- Regarding open grant and payment or loan cycles for the AB 827 city/county payment program, expenditure term extended to September 21st due to COVID-19, but unspent funds must be returned to CalRecycle by September 1st.
- NOFA for Farm and Ranch clean-up grants for FY 20-21 were approved in June and eligibility includes cities, counties.
- NOFA for Tire Incentive Program business incentives (manufacturers), $4.5 million available in FY 20-21.
- Applications for re-use grants in FY 19-20, $2 million total available; due September 10th.
- Beverage container redemption pilot grant, continuing and ongoing application period through January 1, 2022.
- GHG reduction loan program are continuous.

Lastly, events ongoing, upcoming public meetings.

Julie Trueblood, Environmental Program Manager added educational materials are available on CalRecycle's website for SB 1383.

John Duke asked about electronic annual report, if it will look different due to recent changes? Ms. Graham said she believe it appears the same; next year it may be different. Work with your local rep on disposal reporting modifications if necessary.

V. Legislative Update

John Kennedy, Legislative Advocate for RCRC, gave a legislative update on the status of several legislative items of interest. The Legislature has two more weeks to wrap up all bills. While solid waste bills have dwindled, Mr. Kennedy discussed other items currently pending:

- SB 54/AB 1080—renewed effort has been made on these plastics bills; it's still being negotiated and narrowed down.
- AB 995—DTSC overhaul. Could invest DTSC with additional regulatory authority on hazardous waste reductions, which may have downstream effects on local collection efforts. Part of the proposal would remove fee exemptions for household hazardous waste, used oil, and load checking programs.
- SB 1156—Requires CAL FIRE to work on protocols and training for lithium-ion battery fires.
- SB 409—only illegal dumping bill left. Adds penalties.
- AB 2287—Biodegradability criteria, provides a pathway for mulch. Extends deadline for Commission on Curbside Recycling and Markets by 6 months.

- AB 793—Bottle Bill, minimum recycled contents (50% by 2030).

SB 1191, regarding alternative compliance pathways to SB 1383 for rural and low-population counties, was a valuable education campaign with Legislators and RCRC remains committed to addressing this issue next year.

VI. Member County Concerns/Comments

Tedd Ward, Del Norte County, brought up the mixed messages of CalRecycle on SB 1383. While CalRecycle may be flexible on other items, they are adamant that the SB 1383 deadlines are real.

VII. Solid Waste/Regulatory Update

A. CalRecycle

- SB 1383 Short-Lived Climate Pollutant Regulations

  Mary Pitto, Regulatory Affairs Advocate for RCRC, discussed SB 1383 becoming effective by the end of September or October. Page 19 of the packet are key implementation dates for exempt counties. ESJPA will prepare sample resolutions and board reports. One year from the effective date, landfills have to submit status impact reports to CalRecycle, which is prior to January 1, 2022 date. Page 21 lists key dates for non-exempt counties. All summaries will be updated once the Regulations are adopted and effective. ESJPA would like to facilitate small regional discussions and conduct brainstorming on solutions. Will be including non-ESJPA counties, like RCRC counties, in those discussions.

  Mr. Sweetser added education efforts from CalRecycle need to have a rural appropriate message.

  Tedd Ward requested an all-inclusive resolution designating who's responsible in a county for certain SB 1383 programs given that some requirements are not just on solid waste. Mr. Ward expressed a desire that everything be contained in one resolution because some Boards of Supervisors tend to be reticent on the issue overall.

  Supervisor Kobseff asked CalRecycle if there will be a delay or extension to implement SB 1383 given other COVID-19 delays. Ms. Graham answered that there is currently no adjustment to timelines, which are in statute.

- COVID-19 Relief Check-In

  Staci Heaton, ESJPA Program Manager, requested feedback after the last ESJPA TAG Session and asked if there were any new concerns. Justin Nalder, Mono County and Tedd Ward, Del Norte County, both mentioned staff shortages given COVID-19 restrictions and quarantine time periods can lead to workers being off for several weeks.

- AB 901 Recycling and Disposal Reporting Regulations

  Larry Sweetser wants folks to be aware that half of the reporting this year is under the old Disposal Reporting System (DRS) while half is the new Recycling and Disposal Reporting System (RDRS). Make sure to scrutinize disposal numbers. There are a number of RDRS issues, such as tonnages leaving the county; might not get reflected in outflows. One issue to highlight is the need to manually addto the inflow landfill tonnages any outflow recycling, compost, or other material sent off site otherwise you may get dinged for disposal when in reality they were exported out—the system didn't take that into account. Jurisdictions should track their own materials to serve as a verification on the tonnages reported by the solid waste facilities.

- SB 212 Pharmaceuticals and Sharps Waste Stewardship Program

  Leigh Kammerich, Regulatory Affairs Specialist, gave an overview of an open CalRecycle Rulemaking to implement Senate Bill 212, Pharmaceutical and Sharps Waste Stewardship Program. SB 212, passed in 2018, requires CalRecycle to adopt regulations for safe and convenient collection and disposal of covered drugs and home-generated sharps waste, alleviating a significant financial burden of local governments.

  RCRC largely supports the regulatory model as proposed. Overall, the objective to ensure these stewardship programs do not result in a reduction of currently available services in counties. While the recent changes to the regulatory text were largely clarifying, RCRC reiterated requests to make improvements to Household Hazardous Waste programs in this regard. While Senate Bill 212 allows local agencies to request management or reimbursement for home-generated sharps waste collected at local household hazardous waste facilities, we would like a more explicit avenue to receive sharps containers for distribution.

  Tedd Ward was curious that locally certain retailers temporarily stopped their collection of these products in select locations

- Annual Electronic Reports

  Larry Sweetser reminded everyone that this is the end of a four-year cycle. Reach out to your local assistance folks. The August 1st submittal date has been extended to a future date to be determined due to the delay in RDRS numbers. Meanwhile, jurisdictions can update their programs. Even though COVID-19 related waste does not count as disaster debris per CalRecycle, jurisdictions should still track and report those tonnage issues in the notes.

- Form 303

Larry Sweetser noted not much has changed to the reporting system. Suggests asking vendors for data from their activities. If you report used oil and used oil filters to OPP, you do not need to double report it in the Form 303. Due October 1, 2020. Send copies to CUPA by October 1st as well.

B. California Air Resources Board

Staci Heaton presented an update on the Advanced Clean Truck (ACT) Rule, page 41. CARB adopted reporting requirements on light, medium and heavy-duty vehicles for large fleets (50 vehicles and above), including all municipalities including contracted fleets. Not sure on implementation on outreach CARB will perform. It's the first step to getting more electric vehicles and creating a mandate. We understand this is not feasible in many areas. RCRC will continue to be actively involved.

C. State Water Resources Control Board

With regard to Waste Discharge fees, Larry Sweetser said land disposal fees are increasing by 0.2%.

D. Department of Toxic Substances Control

Larry Sweetser said the Photovoltaic Modules rulemaking is ongoing, advises not to accept solar panels until regulations are in place. Once the regulations are done, DTSC must be notified 30 days in advance of receipt of panels. We lost the argument on allowing notification after receipt for load checking programs. Regarding, Household Hazardous Waste programs, many receiving more materials than they were initially before COVID-19. EVQ Questionnaires due to DTSC who can deactivate your ID numbers if you didn't submit. EVQ questionnaires are not required for HHW programs. The eVQ are due 30 days from first notification to file.

E. Extended Producer Responsibility

Michael LaRussa, Northern California Program Coordinator of Mattress Recycling Council (MRC) gave an update on collection events. Funding available for certain collection sites that need equipment and site improvements. Application deadline has been extended until the end of August. In 2018, mattress recycling was down by over 50,000 units compared to 2019. Continue to add more sites and events, happy with results and hope to share more after our annual report is submitted to CalRecycle.

Tedd Ward mentioned that if there are mattresses for sale every day in a county, that there should be take back facilities open every day in the county at no charge, as the program was intended.

Larry Sweetser added that both MRC and Carpet Advisory committees have openings. Rural representation is needed.

Daria Kent, Northern Regional Coordinator of PaintCare discussed COVID-19 impacts, many retail stores stopped accepting paint temporarily, but most are now re-opened. Follow local rules on how best to operate. Dropped 200 gallon minimum to 100 gallon minimum to arrange large volume collection. Have events lined up for Spring 2021.

Tedd Ward asked if he could put local tribes in touch with PaintCare as a large-volume user for paint collection.

F. Grant Program Update

Larry Sweetser, OPP reports are due August 17th. Safety-Kleen is not accepting mixed paper and metal oil filters. Have been conducting Tire Amnesty events, there are a lot of tires out there.

G. Highlights of July and August CalRecycle Meetings

Larry Sweetser mentioned CalRecycle compliance orders in 13 Southern California jurisdictions, watching them. SB 498 biomass conversion facility annual report on the next meeting agenda.

H. Other Regulatory Announcements/Issues of Interest

None announced.

VIII. Agenda Suggestions, Member County Presentation Volunteer, Workshop Topics for Next ESJPA Board Meeting Scheduled Thursday, October 15, 2020.

IX. Articles of Interest

None announced.

X. Adjournment

Was called at 12:03pm.

ESJPA BOARD OF DIRECTORS
2021 MEETING CALENDAR

Thursday, March 11th	RCRC Conference Room
Thursday, June 24th	RCRC Conference Room
Thursday, August 19th	RCRC Conference Room
Thursday, October 14th	RCRC Conference Room
Thursday, December 9th	RCRC Conference Room

** Note: Board of Directors meetings are anticipated to be held from 9:00 a.m. to noon, with a Technical Advisory Group session to follow at 1:00 p.m. Lunch is provided.

Agenda Item IV

PRESENTATIONS

Financial Assurance-Postclosure Maintenance:Step-Down Criteria

Proactive Monitoring

Purpose

The purpose of this document is to provide guidance on the preparation and implementation of a proactive monitoring program (PMP). The implementation of a PMP may impact the level of financial assurance required of a landfill operator.

Financial Assurance Requirements

State regulations (Title 27 California Code of Regulations [27 CCR] section 22211) require the operator of each solid waste landfill that accepted waste on or after January 1, 1988, to demonstrate financial responsibility (financial assurance) for postclosure maintenance until released from postclosure maintenance. Postclosure maintenance financial assurance is required for the entire postclosure maintenance period; that is, until the owner/operator demonstrates that the waste no longer poses a threat to public health and safety and the environment.

Amount of Financial Assurance

For landfills that do not have final closure and postclosure maintenance plans approved on or before July 1, 2010, the amount of financial assurance must be at least the amount of the greater of either the most recently approved or most recently submitted postclosure maintenance annualized cost estimate multiplied by 30. Unless the operator meets specified conditions contained in the regulations, this multiplier will continue for a minimum of 30 years and until the owner/operator is released from postclosure maintenance. A release from postclosure maintenance may be approved by the regulatory agencies if the landfill owner/operator demonstrates that the waste no longer poses a

threat to public health and safety and the environment and all other requirements of postclosure maintenance identified in the approved postclosure maintenance plan or statutes/regulations have been met.

After five (5) years of completed postclosure maintenance activities, at each postclosure maintenance plan review, the operator may submit a request for approval to use a reduced multiplier (i.e., step-down). A reduced multiplier may be approved if certain criteria have been satisfied.

General Step-Down Criteria

The purpose of allowing an owner/operator to step-down (i.e., provide less financial assurance), is to provide an incentive for an owner/operator to perform high-quality postclosure maintenance. Accordingly, a four-part, performance-based criteria must be satisfied for approval of the step-down. The criteria provide evidence that the owner/operator is performing high-quality postclosure maintenance. High-quality performance during these years is anticipated to result in lower future maintenance and repair costs and fewer and less costly corrective actions. Reduced costs and frequency of correction will reduce the risk to the State upon default by an owner/operator. The criteria for qualifying for a step-down are stringent but achievable.

The criteria are:

- With certain exceptions, the operator has not been subject to an enforcement order of EA, CalRecycle, or Regional Water Quality Control Board (RWQCB) during the five-year interval prior to the requested reduction, and the landfill has not been placed on the Inventory of Facilities Violating State Minimum Standards;
- There must have been no disbursements from the corrective action financial assurance demonstration during the same five-year period;
- The postclosure maintenance estimated activities and costs must have been consistent with the actual activities and costs at the closed facility; and
- The owner/operator must have consistently performed an approved proactive monitoring program.

Proactive Monitoring Criterion

Specifically, for the proactive monitoring criterion, the regulations state:

> "The operator has consistently performed a proactive monitoring program that has been described in the operator's postclosure maintenance plan that has been approved by EA, CalRecycle, and RWQCB. The proactive monitoring program shall include, but not be limited to the following: leachate quality and quantity; landfill gas generation and migration; groundwater quality; and final cover settlement, stability, integrity, and maintenance history including repair and replacement. If the operator is already monitoring one or more of the items identified in this section due to other requirements, these may be included within the proactive monitoring program. The proactive monitoring program shall ensure that the operator is obtaining information in order to determine the characteristics and trends of leachate, landfill gas, groundwater and final cover both individually and as they interact with each other in the landfill. The operator shall analyze the data to determine if postclosure maintenance activities have been and will be effective in meeting the requirements of §§21090 and 21180. The monitoring data and evaluation shall be made available to EA, CalRecycle, and RWQCB upon request," [22211(a)(2)(C)2]

In other words, a proactive monitoring program is one that evaluates and demonstrates the overall condition of the landfill. The program must be described within the postclosure maintenance plan and approved by the regulatory agencies.

Proactive Monitoring Program

To the extent that proactive monitoring is already being conducted, the owner/operator would not have to increase monitoring efforts. However, routine regulatory required (compliance) monitoring such as quarterly, semiannual, or annual monitoring of ground water and landfill gas migration monitoring wells, in and of itself, would not be considered proactive monitoring. The purpose of these compliance monitoring wells is to determine if leachate or gas has adversely impacted the environment and whether the landfill has violated State standards. However, this monitoring data, alone,

does not define the overall condition of the landfill. The purpose of proactive monitoring is to determine the overall condition of the landfill and any trends in the condition. Although compliance monitoring data may be acceptable for a PMP, an approved PMP must include an evaluation process that identifies how the landfill system is functioning over time. A properly designed, closed, and maintained landfill should stabilize over several years after closure. A proactive monitoring program is one that monitors and confirms this stabilization.

A proactive monitoring program is a programmatic assessment of the stabilization of a closed landfill over a time period where monitoring and compliance data is compiled and qualified to make a determination of the overall condition of the landfill. At a minimum, it includes analysis, evaluation, and reporting over and above that required for compliance monitoring--but not necessarily additional data collection. The program should evaluate the potential need for additional monitoring points, constituents, or parameters above that required for routine compliance monitoring. It is anticipated that facilities with extensive compliance monitoring programs above minimum regulatory standards may not need additional monitoring points and constituents or parameters. The additional cost and effort for those facilities will be solely for the additional technical analysis and reporting to integrate and aggregate the existing monitoring data. However, if the proactive monitoring program determines there is a need for additional monitoring points, constituents, or parameters to evaluate the performance goals for proactive monitoring, they will be required for approval of a step-down. Furthermore, should additional peer-reviewed scientific research efforts identify specific monitoring criteria not typically included for compliance monitoring, but essential for long-term performance monitoring, the guidance and regulations will be revised accordingly.

Therefore, a proactive monitoring program is not just additional ground water and gas migration wells and/or increased monitoring frequency of these wells. It entails monitoring of additional aspects of the landfill, including, but not limited to, leachate and landfill gas quality and quantity; settlement, including differential settlement; vegetation propagation; slope stability; ground water movement; and erosion control. In addition to monitoring these aspects, a

PMP would also analyze for trends in these aspects. A continuing trend of lower volumes of leachate and landfill gas and less settlement would indicate that the landfill is stabilizing. The PMP data and analysis is needed to determine the overall condition of the landfill and the level of potential threat posed by the waste in the landfill to public health and safety and the environment.

Enforcement

A proactive monitoring program will not directly result in issuance of a violation or enforcement order. Furthermore, although approval of a step-down is contingent on the implementation of an approved PMP, approval of a step-down is not contingent on the results of the analysis conducted for the PMP. However, routine compliance monitoring programs that may be incorporated as part of a PMP are subject to potential issuance of violations and enforcement orders that could be a basis for denial of a step-down if the criteria under 27 CCR 22211(a)(2)(C)1. are not met. Enforcement of routine compliance monitoring programs is conducted independent of the PMP and solely by the respective agency with jurisdiction.

Proactive Monitoring Components

The primary components for proactive monitoring during the postclosure maintenance period include: leachate quality and quantity; the quality, quantity, and migration of landfill gas; ground and surface water quality and movement; final cover settlement including differential settlement, slope stability, integrity, and maintenance history including repair and replacement; and erosion control and vegetation propagation.

Although each proactive monitoring program will need to be based on site-specific conditions, examples of the data potentially necessary for proactive monitoring include, but are not limited to:

- **Leachate**-Leachate quality indicators such as biochemical oxygen demand (BOD) and chemical oxygen demand (COD) and other general condition indicators; current and historic leachate generation rate; sampling and analytical methods and the frequency and locations of sampling; a list of those Federal Appendix II constituents that used to be

detected but are no longer so; a list of those Federal Appendix II constituents that still exceed their respective practical quantitation levels (PQL) in leachate, and, for each constituent, its change in concentration over time; and the concentration change, over time, of nonhazardous constituents that are among the landfill's named Constituents of Concern.

- **Landfill Gas (LFG)**-Current and historic LFG generation rate; methodology to determine the LFG generation rate (i.e., model used), site-specific modeling input parameters; model output; LFG composition (bulk gas constituents, trace non-methane organic constituents (NMOCs), and, for each, a concentration-verses-time plot); sampling and analytical methods and frequency and locations of sampling; internal gas pressure in the landfill (from wellheads, permanent/temporary probes).
- **Ground and Surface Water**-Current/historic ground water and surface water monitoring data and flow direction [using piezometers, compliance wells (including any along the Point of Compliance {POC}) and background wells]; previous/existing impacts attributable to leachate, LFG, or a combination thereof, including the waste constituents involved; and a history and current status of corrective action measures.
- **Final Cover**-Settlement calculations (current and historic) and maps; propagation and persistence of vegetation; current and historic erosion; stability reactions to seismic events; cover component integrity (including both visual inspection and permeability testing and/or leak detection).

In developing a PMP, the operator should demonstrate the appropriateness and reasonableness of the proposed proactive monitoring items as they relate to the specific conditions of the landfill. Agency review of a PMP is addressed in a later section.

Guidance documents have been prepared which address proactive (or performance-based) monitoring with an eye toward indentifying and tracking change, over time, in the threat posed by the waste in the landfill to public health and safety and the environment. These documents include:

- Interstate Technology Regulatory Council (ITRC), Alternative Landfill Technologies Team, postclosure care approach titled, "**Evaluating, Optimizing, or Ending Post-Closure Care at Municipal Solid Waste**

Landfills Based on Site-Specific Data Evaluations," dated September 2006.

- Environmental Research and Education Foundation (EREF) postclosure care approach titled, "**Performance-Based System for Post-Closure Care at MSW Landfills: A Procedure for Providing Long-Term Stewardship under RCRA Subtitle D**," prepared by GeoSyntec Consultants, dated September 2006.

While the ultimate goal of these documents is to facilitate optimizing postclosure maintenance, the underlying principle of the documents is to develop a PMP to provide a holistic evaluation of the overall condition of the landfill. These documents provide detailed options for monitoring based on various landfill factors. These documents may be used to develop a site-specific proactive monitoring program.

Proactive Monitoring Plan Approval and Periodic Review

If an operator intends to implement a PMP, it needs to be specifically described in the postclosure maintenance (PCM) plan for the landfill. The PCM plan shall designate which monitoring items would be considered the proactive monitoring portion. The PCM plan will be reviewed by the regulatory agencies (CalRecycle, RWQCB, and EA) to determine whether it meets all applicable regulatory performance standards and whether a PMP will provide the necessary data to evaluate the overall condition of the landfill. Approval of the PMP is included within the approval of the PCM plan. As with PCM plans, each agency would review and approve those portions of a PMP within its jurisdiction. (See PRC 43506[b].)

Since a PMP is part of the PCM plan, the costs associated with a PMP are to be included within the costs for PCM and the related financial assurances. The operator may, but need not, list the PMP costs as separate line items. However, since a PMP is a voluntary program, any excess costs for PMP items that are not part of compliance monitoring would not adversely impact the PCM cost consistency regulatory criterion.

As part of the PCM plan, a PMP shall be re-evaluated at least every five years to determine if the program is providing the appropriate data to demonstrate the overall condition of the landfill. If necessary, revisions to a PMP may be requested by any of the regulatory agencies if they believe that the program is not providing the appropriate data. To the extent required by law, regulation, or agency policy and procedures, if any regulatory agency requests changes to a PMP, the agency will provide the reason(s) to support the requested changes. The operator is not required to make the requested changes with the understanding that failure to include the requested changes may jeopardize the ability of the operator to successfully secure approval of a request to step down financial assurance obligations and may require the operator to step-up financial assurances.

Step-Down Approval

For a five multiplier (5X annualized postclosure maintenance cost) step-down to be approved, the operator must demonstrate that the operator has consistently performed an approved proactive monitoring program that produces a holistic evaluation of the condition, characteristics, and trends of the landfill.

By conducting this monitoring, the operator's knowledge about the landfill conditions improves, allowing it to identify any deficiencies needing to be addressed. As a result, the operator's scope of postclosure maintenance activities will more accurately reflect the site's needs, and the attendant cost of each activity may be more accurately estimated. An operator so forewarned would be able to take proactive action to remedy noted deficiencies, thereby lowering future costs. This would also result in reduced risk to the State upon a default by an owner/operator.

Although approval of the step-down is not contingent upon the results of the proactive monitoring (i.e., Is the landfill stabilizing?), if required compliance monitoring does indicate that the landfill is violating State regulatory standards leading to the issuance of an enforcement order, the issuance of such an order would result in the denial of a step-down (under the step-down criterion that the landfill be free of an enforcement order during the prior five years), unless an exception applies.

Step-Up Potential

To provide an incentive for the operator to continue performing high quality postclosure maintenance, the regulations also set forth the criteria for increasing the multiplier if the multiplier had been decreased previously. When proactive monitoring is no longer being performed, the operator would be required to increase the multiplier in increments of five (5), with such increases being limited to one (1) within a five (5) year period, to a maximum of 30 (30X). Therefore, to maintain the lower multiplier, the operator would need to continue proactive monitoring until released from postclosure maintenance. In fact, it is this very sort of monitoring that will enable the operator to make, and validate, a claim that less postclosure maintenance is necessary and possibly that the waste no longer poses a threat to public health and safety and the environment. However, although it is advisable always to implement a PMP, the operator may be able to justify modifications to it based on the specific conditions of, and within, the landfill.

Similar to the step-down, should compliance monitoring indicate that the landfill is not meeting state regulatory standards leading to the issuance of an enforcement order, the issuance of the enforcement action would result in a step-up (under the step-up criterion involving such orders), unless an exception applies.

Dispute Resolution Process

CalRecycle, EA, and RWQCB will review the PMP as part of the normal Closure and Postclosure Maintenance Plans (CPCMP) review and approval process. The schedule and process for review and approval or denial of CPCMP is set forth in 27 CCR 21860. The current delegated authority for approval or denial of CPCMP for CalRecycle is the Chief of the Cleanup Closure and Financial Assurance Division. In the event that a dispute regarding the PMP or step-down is not resolved through the normal review and approval process, CalRecycle will institute a dispute resolution process similar to that established for Landfill Gas Monitoring Plans. This guidance will be updated, as necessary, at a later date to incorporate the specific procedures and process to be used for dispute resolution.

Last updated: August 17, 2018
LEA Regulations: https://www.calrecycle.ca.gov/LEA/Regs/
Contact: LEA Regulations PermitTraining&Assistance@calrecycle.ca.gov, (916) 341-6337

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Statewide Commission on Recycling Markets and Curbside Recycling

Draft Meeting Notes

Date: September 16, 2020
Time: 8:30 AM – 12:30 PM

Present:

17 – Commissioners Bouchard, Cadena, Davis, Dell, Donlevy, Ferrante, Kalpakoff, Lapis, Medrano, Oseguera, Potashner, Sanborn, Schneider, Skye, Toyoda, Valle, and Ward.

Absent:

None

List of Participants:

- John Bouchard (John B.) – Teamsters 350, Principle Officer
- Deborah Cadena (Deborah C.)– Kern County Recycling, RMDZ Administrator
- John Davis (John D.) – Mojave Desert and Mountain Recycling Authority, Zone Administrator
- Jan Dell (Jan D.) – The Last Beach Cleanup, Founder
- Jeff Donlevy (Jeff D.) - Ming's Recycling, General Manager
- Laura Ferrante (Laura F.) – Waste Alternatives, Owner
- Joseph Kalpakoff (Joseph K.) – Mid Valley Disposal, CEO
- Nick Lapis (Nick L.) – Californians Against Waste, Director of Advocacy
- Manuel Medrano (Manuel M.) – City of Chula Vista, Environmental Services Manager
- Alex Oseguera (Alex O.) – Waste Management, Director of Government Affairs
- Eric Potashner (Eric P.) – Recology, Senior Director of Strategic Affairs
- Heidi Sanborn (Heidi S.) – National Stewardship Action Council, Executive Director
- Ann Schneider (Ann S.)– City of Millbrae, Vice Mayor

- Coby Skye (Coby S.) – Los Angeles County Public Works, Assistant Deputy Director
- Sara Toyoda (Sara T.) – City of Indio, Environmental Programs Coordinator
- Richard Valle (Richard V.) – Tri-CED Community Recycling, CEO
- Tedd Ward (Tedd W.) – Del Norte Solid Waste Management, Director

Agenda:

Agenda Item 1: Call to Order, Roll Call, and Establishment of Quorum

Chair Heidi S. called to order the Commission Meeting and called roll. Commissioner Lapis was absent. A quorum was established. John D. provided an update on Agenda Item 9, which will be moved to a future meeting.

Public Comments: None

Agenda Item 2: Public Comment Review - Items Not on the Agenda

Public Comments (for complete text of comments, see Appendix I):

- Veronica Pardo – referred to the Organics Committee
- Miriam Gordon – referred to Labeling and Media Committee
- Kreigh Hampel – Recycling Committee
- Michael Gross (1) – referred to Market Development Committee
- Michael Gross (2) – referred to Market Development Committee
- Julie Muir – referred to Market Development Committee
- Daniel Velasquez – no referral made

Nick L. joined during this agenda item.

Agenda Item 3: Discussion and Response to Previous Public Comments

The Labeling and Media Committee has not met since last Commission meeting and has no new updates. The Recycling Commission is waiting to hear back from the Carton Council. The Market Development Committee is meeting on Monday and will continue on carpet comments. The Organics Committee has been addressing compostable packaging comments.

Public Comments: None

Agenda Item 4: Review and Potential Approval of Meeting Notes

Tedd W. requested the September 2, 2020 notes be updated to reflect that Ann S. was designated to work on non-organics source reduction with Tedd W. With edits made, Tedd W. motioned to approve the meeting notes and Coby S. seconded. The meeting notes were unanimously approved.

Public Comments: None

Agenda Item 5: Discussion of Received Expanded Public Proposals

No new public proposals were discussed. Tedd W. and Heidi S. will work together to provide a consolidated list of referrals.

Public Comments: None

Agenda Item 6: Committee Reports

Jan D., Chair of the Labeling and Media Committee, provided an update. No new meetings have occurred since the last Commission Meeting. The Committee will be starting policy recommendation discussions.

Jeff D, Chair of the Recycling Committee, provided an update of the meeting on September 11. The Committee hosted presentations by Paul Bahou from Global Plastics and Susan Collins from Container Recycling Institute. Jeff D. provided a summary on the Committee's "What is Recyclable?" List. Ann S. expressed concerns regarding what could be accepted by small versus large jurisdictions and dual versus single stream. The Commissioners discussed how preliminary policy recommendations should be shared with the Commission. The Recycling Committee added an item to the policy recommendation list called "plastic recycling and policy."

John D. provided a summary of the next Market Development Committee Meeting. The Committee added a policy recommendation list for "C&D, carpet, asphalt shingles, wallboard."

Eric P. provided a summary of the previous Organics Committee Meeting that was held on September 4, 2020 and a summary of the upcoming meeting on September 21, 2020. The Committee will discuss policy recommendations and bring those to the next Commission meeting.

Public Comments (for complete text of comments, see Appendix I):

- Nicole Quinonez
- Tim Shestek
- Bruce Magnani

Agenda Item 7: Discussion of Scheduling and Process for Reporting Recommendations

Tedd W. provided guidance to commissioners and committee chairs on reporting recommendations and the timeline for reporting. He shared an outline of the policy recommendation report and requested that assignments be made to commissioners for specific sections of the report.

Public Comments: None

Agenda Item 8: Update on Legislation

Mindy McIntyre from CalRecycle's Legislative and External Affairs Office provided an update on questions from Commissioners regarding AB 3163 (Salas).

Public Comments: None

Agenda Item 9: Presentation and Discussion on Basel Convention

The Commission was unable to secure a speaker for this agenda item, thus this item will be moved to a future meeting.

Public Comments: None

Agenda Item 10: Agenda Items for Future Meetings

Chair Heidi S. provided a summary of items for future meetings including policy discussions and the Basel Convention.

Public Comments: None

Agenda Item 11: Meeting Summary and Closing

Chair Heidi S. provided closing remarks and adjourned the meeting early at 11:24 am.

Public Comments: None

Appendix I:

Veronica Pardo

The passage of SB 1383 (Lara, 2016) set an ambitious goal to divert the vast majority of California's organic waste from landfills by 2025 and significantly reduce methane emissions. Beginning January 1, 2022, cities and counties must collect and recycle organic waste from all residential and commercial generators, ultimately requiring over 160 new or expanded anaerobic digestion and compost facilities across California. It is estimated SB 1383 implementation and infrastructure development will cost upwards of $10 billion by 2030 to achieve. Preceding the COVID-19 pandemic, jurisdictions faced substantial financial, regulatory, and regional barriers in meeting SB 1383 programmatic expectations. Now with continued uncertainty regarding the extended fiscal impacts of the COVID-19 national emergency, communities are even more constrained in their ability to meet California's organic waste reduction requirements. While initially a

considerable cost, the cumulative economic, public health, and climate benefits associated with recovering organic waste will ultimately exceed the cost of the investments required, and will provide permanent green jobs at a time when California is experiencing extraordinary job loss and economic recovery needs. Achieving this will require harmonization across state and local agencies to overcome the barriers we face in building our essential organic waste management infrastructure. Ultimately, meeting our organic waste reduction mandate will require a long-term, comprehensive policy framework that provides financial support and a coordinated, cross-agency strategy to develop the infrastructure and programs required. In order to achieve our GHG reduction goals, create permanent jobs, and ensure California's leadership in organic waste management, California needs to prioritize and incentivize organic waste management. Below are recommended solutions we request the California Air Resources Board and the Legislature consider for a comprehensive organic waste diversion policy framework: • Coordinated cross-agency strategy to bolster our organic waste diversion system • Long-term statewide funding to support diversion programs, including an appropriate landfill tip fee increase • Development of coordinated and streamlined permitting for new or expanded facilities • Regulatory certainty that investments will not become stranded assets in the future, especially as it pertains to renewable biogas use • Robust state procurement program of organic waste products to drive organic management development and markets, including RNG utilization • Tax credits and incentives to encourage more private investment for infrastructure as well as honor the early investment of private entities who supported state efforts for early compliance with recycling mandates With these solutions, California can meet our GHG reduction and organic waste diversion goals, as well as provide a roadmap for the rest of the nation on how organic waste mitigation can provide significant economic, public health and environmental benefits. Please see our SB 1383 Organic Waste Reduction White Paper for more information:
https://www.resourcecoalition.org/uploads/pdf/regulatory-affairs/SB1383OrganicWasteWhitePaper08-24-20.pdf

Miriam Gordon

FROM UPSTREAM - Miriam Gordon- Policy Director Reduce unnecessary single-use in food service by: 1) requiring all take-out and delivery in food service to provide an opt-in for customers to request specific accessories offered by the restaurant (napkins, straws, condiments, etc. - UPSTREAM has a model policy 2) Bring reusables into take-out food via delivery and customer pick-up by charging for meals in single-use packaging and mandating that food service operators provide a reusable alternative so consumers can avoid the charge. UPSTREAM has a model policy. 3) Institute a 25 cent cups charge for disposable take-out cups- like the cities of Berkeley, Arcata, Santa Cruz, San Anselmo, Fairfax. Require that a cheaper reusable option be provided to the customer to avoid the charge. 4) Same as above but for food containers. As Arcata did. 5) Require that on-site dining food service only be in reusables- as enacted by Berkeley, Arcata, San Anselmo, Fairfax. 6) EPR for packaging and plastic should have a source reduction component that mandates a % of packaging used in retail be in reusables. 7) Adopt an overall waste generation reduction mandate that achieves a % reduction of waste

generated by a certain date- in each category of materials- plastic, paper, metal, wood. SF has a 15% waste generation reduction target by 2030.

Kreigh Hampel

Dear Commissioners, On April 16, 2020 the City of Burbank closed public access to Buy-back and Drop-off services at the Burbank Recycle Center (BRC) in response to the Covid outbreaks and under the Governors Executive order N-54-20 dated March 3, 2020. The geometry of the BRC makes it difficult to run a safe public program during COVID. From June 30 through July 2 the BRC attempted to open its public drop off. After 20 hours of public access, workers began testing positive for COVID and BRC was closed to the public July 2nd. Through July a total of 16 recycling workers tested positive and a total of 27 were quarantined with symptoms, close contact, or positive tests. The Governor's Emergency Executive Orders N-54-20 and N-70-20 provided relief for CRV Redemption Centers under COVID restrictions. On August 21st the Executive Orders expired. CalRecycle notified us that we must reopen CRV Buy-back or forfeit our RC Certification. The Burbank Recycle Center is now faced with a decision to reopen the CRV Buy-back during an active pandemic or forfeit it's AB 2020 (RC) certificate. If the Certificate is forfeited, recertification can take 1-6 months. For safety reasons we would like to keep the Buy-back closed until "dine in" is allowed in Los Angeles County without forfeiting our RC Certificate. We request the Commission's Recycling Committee to help bring flexibility to CRV Redemption Centers during this global pandemic. Our priority is the safety of the public and our employees.

Michael Gross (1)

As of January 1, 2017, California's Green Building Standards Code (CALGreen) requires the diversion of at least 65% of Construction and Demolition (C&D) waste from building projects. Municipalities in California have found C&D diversion ordinances to be effective at diverting this material from landfill. Because of this, the recycling markets for C&D materials are expected to grow. Asphalt shingles are one C&D material whose recycling can be greatly improved upon in California. Roofing materials comprises 3% of our waste stream and are usually received as a source separated load, fairly clean unlike lots of our C&D waste streams. Recycling asphalt shingles offers both environmental and economic benefits, including landfill airspace savings, energy savings, carbon footprint reduction, and job creation. Less energy is required to produce asphalt and aggregate from RAS than from virgin materials. Similarly, the reduction of greenhouse gas (GHG) emissions associated with reduced energy use during manufacturing, transportation, and extraction of virgin materials, lessens the carbon footprint associated with these materials. Asphalt shingle recycling facilities use mechanical processing equipment – and people, offering the opportunity for job creation. These facilities also produce a greater economic benefit for homeowners, contractors and haulers because tipping fees at asphalt shingle recycling facilities is usually less than at landfills. By far, the most common use for recycled asphalt shingles (RAS) is in the manufacture of hot mix asphalt (HMA). This prevalence is partly because the addition of RAS to HMA can offset the input of virgin asphalt binder due to its asphalt concrete content. Numerous states permit the use of RAS in HMA production. For instance, the Texas Department of Transportation allows the use of up to 5% of

RAS to asphalt pavement in the manufacturing of HMA. After 10 years, Caltrans has developed specifications for the use of RAS to HMA. However, to date, no projects in California have been designed or completed. Caltrans expects the RAS producer or contractor to convince the local Caltrans Reginal Engineer that they need to do an RAS pilot project. Caltrans officials will not spec a pilot project from Sacramento. Why can't CalRecycle work with Caltrans to develop a pilot project in Sacramento that could use RAS to show the rest of CalTrans engineers and local city/county road engineers that this material, when used correctly, would have numerous advantages over using virgin products.

Michael Gross (2)

Can CalRecycle work with the wallboard producers in California to require post-consumer content of at least 20% by 2023.

Julie Muir

We need more of this information for CA and its regions so there is more common knowledge out there. In regards to the press release forwarded by email.

Daniel Velasquez

Early this week, countries discussed the new restrictions regarding plastic waste export as agreed in the Amendments to Annexes II, VIII, and IX to the Basel Convention. The Convention regulates the controlling transboundary movements of hazardous wastes and their disposal. Although the US is not part of the Convention, countries where California exports plastic waste are. Among them Malaysia 20%, Hong Kong 15%, Thailand 14%, Vietnam 9%. These amendments will take effect on January 1, 2021, and aim to clarify the scope of control under the Convention for other types of plastic waste and mixtures of plastic waste and their specific conditions. Plastic waste export must be destined for separate recycling of each material and in an environmentally sound manner, and almost free from contamination. Chemical Recycling is an opportunity to take this contaminated plastic waste and use it as a feedstock to create new plastics, low sulfur fuels, and gas to create green energy.

Nicole Quinonez

It was stated changing product labels is an easy fix. While changing the art/content of a label can be changed in a reasonable amount of time, to change the form of the label- shrink sleeve to an adhesive for example, means changing the manufacturing process- new machines, retooling, for that portion of the manufacturing line. It takes years and a lot of investment. As for the purpose of the shrink sleeve, for many products there is a function to the shrink sleeve. Many cleaning products for example, will degrade quickly when exposed to the light, so bottles used to be opaque colors in order to prevent the degradation. As previously discussed, colored plastic is also not desirable, so companies moved to clear plastic with a shrink sleeve with a goal to increase recycling of the container- if the shrink sleeve is removed. To portray the change as purely a marketing only decision is not 100% accurate.

Tim Shestek

There was a comment made that if a product manufacturer's package is currently on the "red" list, it could provide an incentive for those manufacturers to come to the table to see how domestic markets could be created to move that package to the "green" list. If a technology allows for those materials to be converted back into new feedstock such as resin pellets and creates a new domestic market, the Commission should be considering these types of new ideas and innovative approaches.

Bruce A Magnani

Polypropylene, metals (aluminum), PET Thermoform, etc. are all recyclable. This list should be more inclusive, and we should be encouraging and growing recycling markets, not making decisions that will hinder or impede growing markets. The commission should be careful in how they move forward in how they speak to emerging recycling markets.

Agenda Item VII

SOLID WASTE REGULATORY UPDATES

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

EXECUTIVE ORDER N-81-20

WHEREAS the 2020 fire season has already proven to be the most destructive fire season on record in California; and

WHEREAS on August 16, 2020, I proclaimed a State of Emergency to exist statewide due to an Extreme Heat Event, which resulted in record-breaking temperatures and dangerous fire conditions throughout the State; and

WHEREAS on August 18, 2020 I proclaimed a State of Emergency to exist statewide due to the numerous wildfires burning throughout the State, including but not limited to the LNU, CZU, and SCU Complex Fires; and

WHEREAS on September 3, 2020, I proclaimed a State of Emergency to exist statewide due to another Extreme Heat Event, which again resulted in record-breaking temperatures and dangerous fire conditions throughout the State; and

WHEREAS on September 6, 2020, I proclaimed a State of Emergency to exist in Fresno, Madera, and Mariposa counties due to the Creek Fire; in San Bernardino County due to the El Dorado Fire; and in San Diego County due to the Valley Fire; and

WHEREAS on September 10, 2020, I proclaimed a State of Emergency to exist in Siskiyou County due to numerous fires within that county, including the Slater Fire; and

WHEREAS these wildfires have collectively destroyed thousands of homes and other structures, tragically claimed 26 lives to date, damaged and destroyed critical infrastructure, burned millions of acres of land, and created a substantial amount of ash, burnt vegetation, and other such debris over large areas of communities; and

WHEREAS the wildfires have resulted in widespread hazardous debris, which contains dangerous toxins including heavy metals such as arsenic, cadmium, copper, lead, and asbestos, and which must be cautiously and expeditiously removed and properly disposed of; and

WHEREAS recovery will be ongoing and it is imperative that governmental agencies are adequately staffed to help facilitate recovery, and that protections remain in place to ensure communities impacted by these wildfires are able to fully recover; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this Order would prevent, hinder, or delay the mitigation of the effects of the wildfires.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes of the State of California, and in particular, Government Code sections 8567, 8571, and 8627, do hereby issue the following Order to become effective immediately:

IT IS HEREBY ORDERED THAT:

1. State statutes, rules, regulations and requirements are hereby suspended to the extent they would prevent, hinder, or delay the following activities:

    a. Removal, storage, transportation, and disposal of hazardous and non-hazardous solid waste and debris resulting from the wildfires that have burned and continue to burn in areas that are subject to the jurisdiction of departments within the California Environmental Protection Agency and the California Natural Resources Agency; and

    b. Necessary restoration and rehabilitation of timberland, streams, rivers, and other waterways. Such statutes, rules, regulations and requirements are hereby suspended only to the extent necessary for expediting the removal and cleanup of debris from the fires, and for implementing any restoration plan. Individuals who desire to conduct activities under this suspension of statutes, rules, regulations, and requirements shall first request that the appropriate Agency Secretary, or the Secretary's designee, make a determination that the proposed activities are eligible to be conducted under this suspension.

    The Secretary for the California Environmental Protection Agency and the Secretary for the California Natural Resources Agency shall use sound discretion in applying this Order to ensure that the suspension serves the purpose of accelerating cleanup and recovery, while at the same time protecting public health and the environment.

    This Order shall apply to, but is not necessarily limited to: solid waste facility permits, waste discharge requirements for storage and disposal; emergency timber harvesting; stream environment zones; emergency construction activities; and waste discharge requirements and/or Water Quality Certification for discharges of fill material or pollutants. Boards, departments and offices within the California Environmental Protection Agency and the California Natural Resources Agency shall exercise their administrative discretion and expedite the granting of other authorizations, waivers or permits necessary for the removal, storage, transportation and disposal of hazardous and non-hazardous debris resulting from the fires, and for other actions necessary for the protection of public health and the environment.

2. The United States Environmental Protection Agency, the Federal Emergency Management Agency, or any other individual or entity performing work at their direction, shall have full power to provide mutual aid to the State of California and any areas affected by a local health emergency and will have the authority to enter private property in all impacted counties to remove debris that may contain hazardous

substances, and to conduct any testing appropriate to ensure the hazards are mitigated. Any section of the Health and Safety Code allowing the immediate removal of this hazardous debris, including but not limited to section 101085, shall apply to and include the actions of the United States Environmental Protection Agency, the Federal Emergency Management Agency, or any individual or entity performing work at their direction, as if those agencies were a political subdivision or state agency for all purposes related to this operation.

3. The provisions of Penal Code section 396, subdivisions (b),(c), (d), (e), and (f), prohibiting price gouging in times of emergency, will remain in effect until March 25, 2021, in Butte, Del Norte, Glenn, Humboldt, Lake, Lassen, Los Angeles, Mendocino, Monterey, Napa, Nevada, Plumas, San Mateo, Santa Clara, Santa Cruz, Sierra, Sonoma, Solano, Tehama, Trinity, Tulare, Tuolumne, Yuba, and Yolo counties as impacted by fires covered by my August 18, 2020 State of Emergency proclamation; in Fresno, Madera, Mariposa, San Bernardino, and San Diego counties as impacted by fires covered by my September 6, 2020 State of Emergency proclamation; and in Siskiyou County for fires covered by my September 10, 2020 State of Emergency proclamation. The time limitations under those subdivisions are hereby waived.

4. In order to quickly provide relief from interest and penalties, the provisions of the Revenue and Taxation Code that apply to the taxes and fees administered by the Department of Tax and Fee Administration, requiring the filing of a statement under penalty of perjury setting forth the facts for a claim for relief as a result of a disaster, are suspended for a period of three months after the due date of the return or payment.

5. The Franchise Tax Board, the Board of Equalization, the Department of Tax and Fee Administration, and the Office of Tax Appeals shall use their administrative powers where appropriate to provide those individuals and business impacted by the wildfires with the extensions for filing, audits, billing, notices, assessments, and relief from subsequent penalties and interest.

6. To allow counties time to reappraise the value of property to account for fire damage, the requirement in Revenue and Taxation Code section 20622 that the homeowner file the claim with the Controller by February 10, 2021, is waived as to homeowners in the affected counties. Claims must instead be filed by June 1, 2021.

7. Consistent with applicable federal law, work hour limitations for retired annuitants, permanent and intermittent personnel, and state management and senior supervisors, are suspended. Furthermore, reinstatement and work hour limitations in Government Code sections 21220, 21224(a), and 7522.56(b), (d), (f), and (g), and the time limitations in Government Code section 19888.1 and California Code of Regulations, title 2, sections 300-303 are suspended. These waivers in paragraph 7 shall apply to both state and local government entities, as applicable, to ensure adequate staffing to appropriately respond to the wildfires, but the Director of the California Department of Human Resources must be notified of any individual employed by state government pursuant to these waivers. The Governor's Office of Emergency Services shall use these

waivers to ensure adequate state staffing during this emergency. Local governmental agencies shall notify CalPERS of any individual employed by its agency pursuant to this Paragraph 7.

8. The 60-day time period in Government Code section 8630, within which local government authorities must renew a local emergency, is hereby waived for the duration of the gubernatorially proclaimed emergency. Any local emergency proclaimed will remain in effect until each local governing authority terminates its respective local emergency.

9. The 30-day time period in Health and Safety Code section 101080, within which a local governing authority must renew a local health emergency, is hereby waived for the duration of the gubernatorially proclaimed emergency. Any such local health emergency will remain in effect until each local governing authority terminates its respective local health emergency.

I FURTHER DIRECT that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this Order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 25th day of September 2020.

GAVIN NEWSOM
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

Wildfire Debris Cleanup and Recovery

Every year, California faces the threat of devastating wildfires that have the potential to claim lives, destroy property, and harm the environment. These disasters often create a significant amount of debris, which can include ash, metal, concrete, building materials, contaminated soil and hazardous materials. Disaster debris must be removed and properly managed to reduce threats to public health and safety, protect the environment, and help communities recover and rebuild.

California's Consolidated Debris Removal Program is implemented under the leadership of the California Governor's Office of Emergency Services (CalOES) and local governments.

FACT SHEET: What you need to know before you return to your property

CalOES: Wildfire Recovery Resources

Translate

To translate this information into Spanish (or other languages), scroll to the bottom of the page and use the Google Translate box on the right side of the black bar.

Contractors and Subcontractors

For information about current contract solicitations and other opportunities with CalRecycle on debris removal and related projects, visit our Contracts page.

General Information

CalRecycle is often tasked with organizing, managing, implementing, and overseeing debris removal operations in support of local governments. CalRecycle oversees and manages contractors to conduct debris removal at no out-of-pocket cost to property owners. To participate, homeowners must grant cleanup crews access to their properties by returning signed right-of-entry agreements to their local governments.

Order of Operations

The state-managed debris removal program has two phases: 1) The removal of household hazardous waste, and 2) The removal of other fire-related debris.

Learn More

Resources for Homeowners

CalRecycle has prepared resources and guidance to help affected residents with information about wildfire debris management and disposal, household hazardous waste collection and storage, and wildfire debris/ash cleanup and disposal.

Learn More

Resources for Jurisdictions

Depending on the circumstances and extent of damage caused by a wildfire, local government jurisdictions develop a coordinated approach to fire debris cleanup.

Learn More

Current Wildfire Debris Cleanup Projects

Cal OES has tasked CalRecycle to manage Camp Fire debris removal operations in Butte County. Find more information about the debris removal effort and additional resources for wildfire survivors on the following local recovery website:

- Butte County: Camp Fire

Last updated: January 7, 2020
Disaster Recovery: https://www.calrecycle.ca.gov/Disaster/
Contact: Office of Public Affairs opa@calrecycle.ca.gov (916) 341-6300

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Wildfire Recovery Resources for Homeowners

CalRecycle has been involved in past cleanup efforts for several large wildfires and has prepared the resources and guidance below to help residents and local governments with wildfire debris management and disposal, household hazardous waste collection and storage, and debris/ash cleanup and disposal.

- California Office of Emergency Services: Statewide Wildfire Recovery Resources
- California Environmental Protection Agency (CalEPA): Fire Response and Recovery
- California Department of Toxic Substance Control (DTSC): Wildfire Household Hazardous Waste Removal
- California Department of Public Health: Wildfire Recovery Health and Safety Resources
- California Contractors State License Board: Disaster Information Center
- California Department of Insurance: Dealing With Catastrophes--Wildfires
- Federal Emergency Management Agency (FEMA): Disaster Recovery Assistance

Last updated: January 7, 2020
Disaster Recovery: https://www.calrecycle.ca.gov/Disaster/
Contact: Office of Public Affairs opa@calrecycle.ca.gov (916) 341-6300

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Dangerous Debris

Potential Health Risks Associated with Residential Wildfire Debris

After a devastating fire, homeowners are often eager to return to their homes to see what can be recovered. While it is best to contact your local city or county for guidance about entering your property, homeowners should be aware of the immediate and long-term health risks associated with exposure to residential wildfire ash and debris. Whenever possible, residents should avoid or minimize contact with residential wildfire debris.

What Is in Residential Wildfire Debris?

Based on past analysis of homes and structures burned by wildfires, the resulting ash and debris can contain some or all of the following:

- Tiny particles of dust, dirt, and soot that can easily become airborne and inhaled.
- Toxic amounts of heavy metals including arsenic, cadmium, copper, lead, and mercury.
- Asbestos.
- Hazardous materials such as propane tanks, air conditioners, batteries, cleaning products, pesticides, and herbicides.

Reducing Your Exposure

While sifting through residential wildfire debris may not be prohibited, for your safety and the safety of others, it is not recommended. In addition to irritating your skin, nose, and throat, substances like asbestos and cadmium have been known to cause cancer. Property owners who want to search debris for possible salvageable items should do so with caution and with proper protective gear.

- Avoid disturbing debris or kicking up ash.
- NIOSH-certified air-purifying respirator masks are highly recommended. A mask rated N-95 is more effective at blocking particles from ash.
- Wear gloves, long shirts and pants, safety eyewear, and other clothing.
- It's best to change shoes and clothing as soon as you are off-site to avoid contaminating your vehicle, your home, or other non-contaminated areas.
- Even with protective clothing and respirators, children should not be exposed to wildfire ash or debris.

https://caloes.ca.gov/cal-oes-divisions/recovery

https://www.calrecycle.ca.gov/Disaster/Wildfires/

Wildfire Recovery Resources for Jurisdictions

Depending on the circumstances and extent of damage caused by a wildfire, local government jurisdictions develop a coordinated approach to fire debris cleanup. This could involve:

- Establishment of standards for cleanup (based on public health and safety findings from prior fires).
- Local government contracting and management of debris removal from private properties for those entities voluntarily participating in the coordinated program.
- The use of State-contracted cleanup crews.

Local government jurisdictions choosing to coordinate a fire debris cleanup may also want to consider the following:

- Establishment of a debris removal operations center;
- Voluntary participation programs, including the right-of-entry permit, which allows a County/City/State agency to proceed with cleanup on privately owned properties;
- Household hazardous waste collection/coordination;
- Removal of landscape/vegetation;
- Erosion control.

For technical questions regarding wildfire debris and its removal, contact CalRecycle.

Disaster Waste Tracking: Jurisdictions may deduct disaster waste tonnage in their annual reports to CalRecycle so it will not negatively impact their solid waste diversion rates. In order for jurisdictions to claim this disposal reduction, it is essential that disaster waste be tracked separately from other waste at disposal facilities. For each disaster waste load received, facilities must record the tons by jurisdiction. Local government and emergency personnel have the

most specific knowledge of areas that burned and facilities that are or will be receiving disaster waste. We ask that you notify all applicable facilities regarding these record-keeping needs.

The following documents provide CalRecycle guidance for local disaster response efforts:

- *Local Enforcement Agency Advisory #43--Disaster Assistance.* Guidance on disaster debris management, including selecting and securing temporary storage sites.
- Local Enforcement Agency Guidance Emergency Waiver of Standards.
- *Integrated Waste Management Disaster Plan*. CalRecycle's 1997 plan contains information and case studies that can assist local governments in recovery efforts. Please go to the FEMA website for up-to-date information on reimbursement requirements.
- Asbestos-Containing Ash and Disaster Debris. Solid waste landfills accepting ash or other disaster debris that contains greater than 1 percent friable asbestos by weight that are not already permitted to accept such waste must obtain an emergency waiver specific to this waste type pursuant to the procedure set forth in California Code of Regulations, Title 14, Division 7, Chapter 3, Article 3. Where the Enforcement Agency has issued a waiver, the ash or debris containing greater than 1 percent friable asbestos should be handled in accordance with California Code of Regulations, Title 14, Section 17897.18 "Design and Operating Requirements" for solid waste facilities that dispose of asbestos-containing waste.
- *Rebuilding Green*. CalRecycle's fact sheet provides ideas that can save or reduce resources in five categories: site, water, energy, materials, and indoor environmental quality as you rebuild your home after a disaster.

Contacts

- CalRecycle Local Assistance and Market Development Contacts. CalRecycle's Local Assistance staff can help local governments locate disaster debris processors and sample disaster debris contracts and ordinances.
- Local Enforcement Agency (LEA) Directory

- CalRecycle Permitting and Enforcement Contacts for local enforcement agency (LEA) reference.

Last updated: January 3, 2020
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Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals

August 18, 2020

CalRecycle

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Executive Summary

Senate Bill (SB) 1383 (Lara, Chapter 395, Statutes of 2016) established ambitious but necessary short-lived climate pollutant reduction mandates. To meet those mandates, SB 1383 required CalRecycle, in consultation with the California Air Resources Board (CARB), to develop regulations to reduce the disposal of organic waste 50 percent below 2014 levels by 2020 and 75 percent by 2025. In addition, recognizing the significant levels of food insecurity in the state, the Legislature further required that CalRecycle include requirements to increase food recovery by 20 percent by 2025.

Reducing disposal of organic waste is a critical part of the Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy), which was mandated by SB 1383 and outlines the State's plans to meet the SB 1383 requirements and goals, and is essential to achieving California's climate goals.. Organic waste, as defined by SB 1383, includes materials primarily comprised of carbon such as food scraps, food-soiled paper, paper products, green material, landscape and pruning waste, organic textiles and carpets, and wood waste.

Organic waste in landfills accounts for 20 percent of the methane generated in California. Methane, a powerful greenhouse gas 72 to 84 times more potent than carbon dioxide, has a short-term atmospheric life, but a long-term impact on the climate. By recycling these materials into compost, fuel, and other products, California can avoid generating 4 million metric tons of CO2 equivalent (MMTC02e) annually by 2030 while also generating jobs and producing valuable resources in the state. Beyond avoiding methane generation at landfills, compost has demonstrated benefits for soil health, food security, and climate stabilization, and it is a critical tool for meeting California's goal for carbon neutrality by 2045.[1] Ensuring organic material is directed to its highest and best use, such as compost creation and use, rather than going to landfill, will help California meet many of its goals, including but not limited to those in SB 1383.

CalRecycle estimates that approximately 27 million tons of organic material will need to be redirected from landfills in 2025 to meet the SB 1383 reduction goal, including edible food and approximately 18 million tons of organic waste that will need to be processed at compost, anaerobic digestion (AD), chip-and-grind, or other organic waste processing facilities.[2] Reducing the amount of organic waste generated, producing compost, generating electricity and renewable gas through AD, recovering edible food for human consumption, and recycling of paper and cardboard are critical strategies to achieve the goal.

While organics recycling and recovery infrastructure is growing, significant expansion is necessary to provide the recycling capacity needed to meet the SB 1383 disposal reduction goals. Based on current capacity projections, the infrastructure in the state will be able to process about 10 million tons of the 18 million tons. However, with greater focus on mandatory organics recycling programs, procurement, and other policies and

investments, California can achieve the reductions in methane generation envisioned in SB 1383.

CalRecycle recognizes COVID-19 has dramatically impacted the lives of all Californians and created additional economic challenges for local governments. However, to meet climate change goals and to protect human health and the environment from negative impacts of greenhouse gas emissions, California must not delay the implementation or change the diversion or compliance goals set in SB 1383. CalRecycle is committed to providing technical assistance to entities so SB 1383 compliance is achieved.

Progress Analysis

SB 1383 requires CalRecycle to conduct an analysis of waste sector, state government, and local government progress toward meeting the 2020 and 2025 organic disposal reduction goals. Public Resources Code (PRC) §42653 requires the analysis to include:

1. The status of new organics recycling infrastructure development
2. Commitment of state funding and appropriate local service rate increases to support organics recycling infrastructure expansion
3. Progress in reducing regulatory barriers to siting organics recycling facilities
4. The timing and effectiveness of policies that will facilitate permitting of organics recycling facilities
5. The status of markets for compost, biomethane, and other products generated by facilities, including cost-effectiveness of electrical interconnection and common carrier pipeline injection

SB 1383 permits CalRecycle to include incentives or additional requirements in the regulations adopted pursuant to SB 1383. The statute additionally states that the department may, upon consultation with stakeholders, recommend to the Legislature revisions to the organic waste reduction goals.

Findings

In consultation with CARB, CalRecycle staff identified and analyzed data and information to gauge the progress that has been made toward achieving the 2020 and 2025 goals. This data included a survey of organics recycling and processing infrastructure, waste characterization data, markets for recovered organic waste products, funding sources, local rate structures and organic waste recycling policies, and edible food recovery programs.

The analysis indicates that:

1. Organics recycling and recovery infrastructure is growing, but still needs significant expansion to provide the recycling capacity necessary to meet the SB 1383 disposal and methane reduction goals.

2. Mandatory collection programs are critical for organics recycling and recovery infrastructure development and to help attract private investments.
3. The permitting and regulatory requirements in place are necessary to protect human health and the environment and to ease community concerns regarding organics recycling facilities.
4. The procurement requirements in SB 1383 regulations are necessary to develop markets for compost and biomethane and are essential components of achieving the overall methane reduction goals.

CalRecycle recommends maintaining the disposal reduction targets set forth in SB 1383. The SB 1383 regulations build on the state's previous organic waste reduction targets and create a compliance road map. The state has funded $140 million in grants and loans for organic waste infrastructure, and adoption of the regulations will provide regulatory certainty for continued investment from the private sector. In addition, CalRecycle will release a customizable model franchise agreement and model enforcement ordinance for jurisdictions. The SB 1383 procurement requirements will also increase markets for recovered organic waste products by providing certainty for demand of the finished product.

Successfully meeting the organics reduction goals of SB 1383 by the dates set in statute is a critical component of the statewide strategy to avoid the most extreme climate consequences of global climate change. Sustainably managing organic waste will strengthen California's economy and provide national and global leadership on the fight against climate change.

Introduction

The implementation of the state's organic waste reduction regulations adopted under SB 1383 is a critical step to protect Californians, our environment, and our economy from the impacts of climate change. Organic waste in landfills accounts for 20 percent of the methane generated in California. Methane, a super-pollutant 72 to 84 times more potent than carbon dioxide, has a short-term atmospheric life, but a long-term impact on the climate. Targeting reductions in methane emissions is an effective mechanism for combating climate change and moving toward a more sustainable future.[3]

Californians have seen what a changing climate means for our state:

- Record heat
- Devastating wildfires
- Cyclical droughts
- Rising seas
- Coastal erosion
- Extreme weather events
- Unhealthy air

Action Now Could Mitigate Devastating Climate Impacts

California's latest Climate Change Assessment projects even more intense impacts by the year 2100, especially if we don't act now.[4] The most likely and devastating impacts reported include:

- Average daily maximum temperature could increase by 5.6 to 8.8 degrees Fahrenheit
- 77 percent more of the state could experience devastating wildfires that endanger lives and structures
- 31 to 67 percent of Southern California's beaches could completely erode because of sea level rise
- Heat-related deaths could triple
- Snowpack, which is California's largest water reserve, could decline by 75 percent by 2050

California needs to take immediate action to turn our trajectory from this probable future.

SB 1383 Reduces Methane and Extends Landfill Life

California needs to reduce its organic waste disposal as part of its strategy to lower statewide greenhouse gas (GHG) emissions to 40 percent below 1990 levels by 2030, a goal outlined in SB 32 (Pavley, Chapter 249, Statutes of 2016). Implementation of SB 1383 is one of the most essential actions the state will take to reduce the disposal of

organics, which make up two-thirds of the waste stream. By significantly reducing the amount of organic waste sent to landfills, we can lower one of the top sources of methane contributing to climate change, maximize landfill life spans, and transform organic waste into value-added resources like compost, biofuel, and electricity. Doing so will contribute to our state's economic health by creating jobs and strengthening the circular recycling economy within our state.

SB 1383 Directs Edible Food to California's Food-Insecure

SB 1383 also established a goal to recover at least 20 percent of the edible food that is destined for landfills and redirecting it to needy Californians by 2025. Achieving this goal requires the development of robust edible food recovery programs that will combat hunger in communities throughout the state. More than 5.5 million tons of food waste are disposed in California landfills each year, which is especially tragic when there are currently 1 in 5 children who go hungry every night.[5]

COVID-19 Related Impacts

More Residential Food Waste

COVID-19, and the resulting economic downturn expected, will likely impact disposal, but it is difficult to estimate by how much and for how long. During the Great Recession from 2007 to 2009, landfill disposal dropped by 21 percent, illustrating the correlation between disposal and economic activity.[6] However, as the generation of food waste temporarily moves from the commercial sector to the residential sector—due to restaurants shifting from dine-in to take-out and customers buying groceries in bulk—the volume of food waste, and associated packaging waste, may increase.[7,8] A survey of 195 California jurisdictions found that only 4 percent of the respondents offer food waste collection to single-family residences and 11 percent offer it to multi-family residences, compared to 39 percent that offer food waste collection to commercial businesses.[9]

Cardboard Packaging Increase from Online Ordering

Old corrugated cardboard (OCC) disposal has increased dramatically between 2014 and 2018, possibly due to the combination of higher e-commerce sales and lower commodity prices (See Finding 5-3). The amount of packaging disposed will likely increase temporarily due to increased demand for online sales during Shelter in Place orders. For instance, in March 2020, Amazon announced it would hire 100,000 new employees to meet a surge in online sales.[10] However, if demand for online purchases continues to rise, California could see an even greater rise in the amount of packaging generated and ultimately disposed of in landfills.

Process for Determining Progress

SB 1383 requires CalRecycle to conduct an analysis of waste sector, state government, and local government progress toward meeting the 2020 and 2025 organic disposal reduction goals. In consultation with CARB, CalRecycle staff identified and analyzed the following data and information to gauge the progress that has been made toward achieving those goals:

- A survey of the organics recycling and processing infrastructure, including:
    - The number of facilities, feedstock sources and types, products, and markets for compost, mulch, digestate, biogas, and other products
    - Technology approaches to managing potential environmental impacts to air and water
    - Barriers to facility expansion, including regulatory, statutory, local land use, market, and other economic barriers
- A comparison of data from the 2014 Statewide Waste Characterization Study with data from the 2018 Waste Characterization Study
- An analysis of the infrastructure and markets for other organic waste handling processes (e.g., biomass conversion, animal feed production, and alternative daily cover)
- State agency funding and incentives to support organics recycling infrastructure development
- Other funding sources, including local incentives and private investments that are available to fund organics recycling infrastructure development
- Local rate structures and other policies that encourage organics recycling infrastructure development
- Edible food recovery and food waste prevention programs, including an estimate of edible food that is disposed, recycled, or recovered for human consumption.

Analysis and Findings

Analysis Item 1: Status of New Organics Recycling Infrastructure Development

Finding 1-1: Achieving the SB 1383 Disposal Reduction Goals Requires Expansion of Organics Recycling and Recovery Infrastructure

California's organics recycling and recovery infrastructure is growing, but it still needs significant expansion to provide the recycling capacity necessary to meet the SB 1383 disposal reduction goals. Available capacity in 2025 for composting, AD, and chipping and grinding of previously disposed material is estimated in Table 1. CalRecycle estimates that 27 million tons will have to be redirected from landfills in 2025, including edible food and approximately 18 million tons of organic waste that will need to be processed at compost, AD, or chip-and-grind facilities. However, based on current capacity projections, the state will only be able to process about 10 million tons of this material.

Table 1. Estimated Composting, Anaerobic Digestion, and Chip-and-Grind Capacity in 2025 (Million Tons)

Technology	Estimated Anticipated Capacity, 2025*	Estimated Needed Capacity, 2025	Difference
Compost	5.3	9.6	(4.3)
Anaerobic Digestion	1.0	2.7	(1.7)
Co-Digestion†	0.12	2.4	(2.3)
Chipping and Grinding	3.5	3.3	0.2
Total	9.9	18.0	(8.1)

* Estimated anticipated capacity to divert *additional* tons from landfills to compost, anaerobic digestion, and chip and grind.
† The State Water Resources Control Board estimates that WWTPs have digester capacity to co-digest at least 2.4 million tons of food waste. For more information, see the section on *Co-Digestion at Waste Water Treatment Plants* below.

Composting

Composting is the process of controlled aerobic decomposition of organic material such as leaves, twigs, grass clippings, and food scraps. Finished compost is a soil amendment with a wide variety of nutrients, micronutrients, and organic matter, all of which benefit the soil. CalRecycle estimates that the state composted about 6 million tons of organic waste in 2017. We will need to compost an additional 9.6 million tons in 2025 to meet the disposal reduction goal required by SB 1383. Based on current capacity projections, the state will only be able to process about 5.3 million tons of this material.

Existing Compost Capacity

Currently, there are approximately 180 compost facilities in California. Many of these facilities are small, or operate under a tier that limits the type of feedstock they can accept (e.g. limited to agricultural materials). Of these 180 facilities, approximately 80 actively receive material from the municipal solid waste stream (e.g. commercial and residential collection services). There are currently 35 compost facilities that accept and recycle food.

CalRecycle conducted research and determined that California compost facilities composted approximately 6 million tons of solid waste in 2017. These composting facilities have permitted capacity to compost an additional 4 million tons of material. While available annual permitted capacity is significant, other factors, including operational capacity, air and water permitting, access to feedstock, and hauler competition, may limit the feasibility of using that capacity.[11]

Expanding Compost Capacity

Since 2018, new and expanded compost facilities brought an additional 200,000 tons of annual capacity into operation statewide. Fourteen compost facilities are anticipated to begin operations for additional capacity of 1 million tons of organic waste recycling within the next few years. CalRecycle has awarded grants to 12 of these facilities. In March 2020, CalRecycle announced grant awards to an additional three compost facilities that are projected to add another 100,000 tons of capacity per year.

Full use of existing capacity, along with the projected expanded capacity, would allow California to compost an additional 5 million tons of organic waste in the next few years.

Anaerobic Digestion

Stand-Alone AD Facilities

AD is a biological process in which microorganisms break down biodegradable material in the absence of oxygen. Materials that are suitable for AD include food waste, green

waste, and manure. AD results in the generation of a solid material called digestate, which can be composted; and biogas, which consists mostly of methane and carbon dioxide. Methane generated from AD, referred to as biomethane, is used to produce electricity, heat, and low carbon transportation fuels, such as compressed renewable natural gas (RNG).

CalRecycle estimates that approximately 350,000 tons of solid waste was recycled at stand-alone AD facilities in 2017. Annual AD capacity in 2017 was approximately 400,000 tons‡. Since 2017, two AD facilities began operations with an estimated combined annual capacity of 90,000 tons. Eight AD facilities are anticipated to begin operations with new or expanded capacity within the next few years, including three that received grants from CalRecycle. These facilities will bring an additional 850,000 tons of annual recycling capacity into operation within the next few years. Finally, in March 2020, CalRecycle announced grant awards to an additional three AD projects expected to add 300,000 tons of capacity per year.

In the next few years, full utilization of existing annual permitted capacity, and use of projected expanded capacity coming online, will provide the ability to digest approximately 1 million tons of organic waste currently disposed of in landfills.

Co-Digestion at Wastewater Treatment Plants

Approximately 26,000 tons of food waste were diverted from landfills and co-digested at three wastewater treatment plants (WWTPs) in 2017. However, if fully utilized, these three facilities could manage an additional 74,000 tons of material. Six WWTPS are anticipated to start co-digesting food waste and will bring an additional 140,000 tons of capacity online by 2025.

A forthcoming State Water Resources Control Board (State Water Board) report estimates that California WWTPs have enough existing excess digester capacity to accommodate between 2.4 and 8.6 million tons of municipal food waste. This range reflects different assumptions regarding digester operating conditions, including system redundancy, varying retention times, and loading rates. Maximizing the use of excess capacity would require expanding the capacities of other key wastewater treatment components, such as biosolids dewatering, and biogas utilization systems.[12]

Using this existing infrastructure could reduce the number of new AD facilities that need to be built, and potentially significantly lower the capital investment needed to add new capacity. CalRecycle estimates that the state needs to divert approximately 3.8 million tons of food waste to AD by 2025. Given that the forthcoming State Water Boards report estimates that statewide WWTPs have digester capacity for at least 2.4 million tons of food waste, local jurisdictions should consider working with these facilities to determine the upgrades necessary to co-digest food waste. Jurisdictions should also consult with

‡ Includes estimates for several facilities that did not respond to the 2018 survey.

WWTPs to determine the most feasible way to collect and deliver food waste to the facility. Many sewer districts do not want food waste conveyed through the sewer because it can increase corrosion and methane generation within the sewer lines.

Edible Food Recovery

The CalRecycle 2018 Waste Characterization Study estimated that approximately 1.1 million tons of potentially donatable food is currently disposed in landfills.[13] SB 1383 set a goal to divert 20 percent of this edible food and instead recover it for human consumption by 2025. The study results suggest that at least 225,000 tons of edible food would need to be recovered in 2018 to meet the SB 1383 metric. The study provides the first indication of the minimum level of food recovery necessary to achieve the SB 1383 food recovery target. Future waste characterization studies, data reported under the SB 1383 regulations, and additional analyses will be necessary to determine how much food was edible and could have been consumed at the time of disposal. Achieving the 2025 goal may require more aggressive food recovery efforts, and CalRecycle will assess if additional regulatory tools are needed.

Organizations that received food recovery grants from CalRecycle provided information that report the capacity to rescue at least 80,000 tons of edible food per year statewide. Additional work is needed to determine the existing and needed capacity for edible recovery to achieve the reduction goals established by SB 1383. CalRecycle will also release a model edible food agreement that will reflect the requirements of SB 1383 to increase food recovery efforts.

Additionally, as a portion of the edible food recovery education and outreach requirements, local jurisdictions are required to provide commercial edible food generators with information about actions that commercial edible food generators can take to prevent the creation of food waste.

Chipping and Grinding

Chipped and ground organic material has not gone through the decomposition process of composting, and therefore it is not a soil amendment, like compost. It may be used as a protective layer over the soil to control weeds, retain moisture, prevent erosion, and buffer temperature extremes.

CalRecycle estimates that an additional 3.5 million tons of organic materials, including green waste, lumber, and branches and stumps, will need to be processed at chip-and-grind facilities by 2025 to meet the SB 1383 disposal reduction goal. However, CalRecycle does not anticipate a significant expansion in chip-and-grind capacity will be needed. This is because chip-and-grind operations are not necessarily anchored to permanent infrastructure, and mobile chip-and-grind operations can fluctuate in capacity by relocating their operations to meet current demand in different regions.

Chipped and ground wood and green waste meet the definition of recovery in SB 1383 regulations when used for the following:

- Mulch
- Biomass conversion
- Land application of uncomposted organics
- A soil amendment for erosion control, revegetation, slope stabilization, or landscaping at a landfill

Biomass Conversion

Biomass conversion uses controlled combustion, or noncombustion thermal technologies, to convert organic waste materials into heat, fuels, or electricity. Organic waste used for biomass conversion includes green waste, lumber, and branches and stumps. Biomass conversion of urban wood and green materials has decreased in recent years. At one time, California had more than 60 biomass-to-energy plants. These plants processed woody materials from sawmills, agricultural residues, and urban sources. Many chip-and-grind and compost facilities sent the woody fraction of their feedstocks (including composting overs) to biomass plants to diversify markets and to generate revenue. Historically, biomass markets were a critical outlet for chip-and-grind operations and an important outlet for composting facilities. In 2010, compost facilities sent almost 600,000 tons of material to biomass (about 10 percent of all products produced by compost facilities). In 2017, this number was down to 170,000 tons, or about 3 percent. The 2018 Waste Characterization Study indicates that approximately 5 million tons of material is disposed of in landfills each year that could be sent to biomass conversion.[14]

Biomass Cost Exceeds Sell Price of Renewable Power

From 2000 to 2017, the amount of urban wood waste consumed by biomass facilities decreased by 1 million tons, and the downward trend continued in 2018, with biomass facilities accepting just over 1 million tons of urban woody waste.[15,16] This decline is due to a combination of factors, though the most important is that electricity from other renewable sources (e.g., solar, wind) is cheaper.

SB 1383 May Increase Demand for Biomass Conversion

In 2016, the legislature passed SB 859 (Chapter 368, Statues of 2016) to facilitate biomass plants processing dead and dying trees in response to the tree mortality crisis in California. However, while SB 859 increased demand for forest sources of biomass, it did not increase demand for urban woody wastes. The procurement requirements in the SB 1383 regulations (discussed in Analysis Item 4 below) may increase demand for urban sources of biomass at biomass conversion facilities that are adjacent to urban areas and have excess capacity.

Notably, combustion of biomass results in criteria pollutant emissions, which negatively affect human health. That is why any biomass conversion should be conducted consistent with permitting and at facilities that do not increase criteria pollutant emissions, particularly in areas that are out of attainment for criteria pollutant emissions, and especially in disadvantaged communities.

Animal Feed

Using organic waste for animal feed is another way to recycle it and further reduce the amount sent to landfills. To analyze animal feed opportunities, the California Department of Food and Agriculture (CDFA) conducted a survey of commercial feed licensees regulated by CDFA's Commercial Feed Regulatory Program. Sixty-four surveys were returned with an average tonnage per year reported from all 64 firms totaling 12.5 million tons of livestock feed in 2019. The survey represents more than half of the 22.5 million tons of livestock feed reported to have been sold within California. The survey offers valuable insight into the types of byproducts, coproducts, and waste that could be diverted from landfills and then repurposed as livestock feed in a typical year of feed commerce within California.

Surveyed producers report that approximately 37.5 percent of their feedstock is grain or other products specifically grown or manufactured for animal feed, while another 62.5 percent of their feedstock is categorized as byproducts or coproducts. Much of the material in the byproduct/coproduct category is organic material that has not traditionally been landfilled, is unlikely to become solid waste, and therefore would not be counted as a reduction in disposal. This includes spent brewers' grains, vegetable culls from packing operations, and almond hulls. These materials are typically never commingled with solid waste and can be sold as a product to animal feed operations. In the absence of animal feed markets, the material can be recycled by being tilled into the soil (land application). A substantial amount of the animal feedstock used by surveyed operators (4.7 million tons) is grown or manufactured for animal feed, often out of state. The animal feed industry could potentially replace some of that material with municipal organic waste that is currently disposed.

Quality Standards to Turn Food Waste into Animal Feed

Processing organic waste from the commercial or residential solid waste stream for animal feed may require investments in equipment capable of separating feed-quality organic waste from contaminants in the collection stream. Such processing should occur at a location with a solid waste facility permit authorizing the facility to separate and process solid waste. However, if such processing investments enable a solid waste facility to produce feed-quality material from organic waste, there is potentially a significant amount of capacity and demand for the final product. In order to protect and preserve public health and safety, animal feed is strictly regulated by CDFA and must meet quality standards, such as pathogen destruction, that are necessarily higher than quality standards for material recycled and used as a soil amendment. At the time of

this analysis, there is only one operation in the state licensed by CDFA to process commercial solid waste into animal feed. If this market expanded, the amount of additional, new end-use organics recycling (e.g., compost AD facilities) capacity could be mitigated. Additional market conditions such as location and transportation distances, which impact all facilities, would also affect this method of organic waste recycling.

CalRecycle will continue to work with stakeholders and CDFA to determine the types and quantities of organic waste material that could potentially be diverted from landfills to animal feed production.

Paper Processing and Recycling

Background

Unlike other organics that are processed locally due to transportation costs associated with putrescible materials, California paper has historically been exported to other countries to be processed into recycled paper products. In 2018, California exported 8.5 million tons of paper, of which 67 percent was old corrugated cardboard (OCC), 32 percent was mixed paper, and 1 percent was high grade paper.[17] CalRecycle assumes that 70 percent of the material exported from California ports was generated in the state. Total paper exports have been generally decreasing since 2011. With global markets demanding paper bales with low contamination, exports of mixed paper material are expected to continue declining.[18] The decline in newspaper generation and the explosion of e-commerce has also significantly changed the makeup and the nature of paper recycling.

While the total generation of paper in California is unknown, paper is a significant component of our disposal stream as well as our recyclable exports. Paper is the second-largest class of materials sent to disposal in 2018, with an estimated 6.5 million tons landfilled.[19] Though more paper was disposed of in 2018 than in 2014, the proportion of paper in the overall waste stream has decreased from 17.4 percent to 16.6 percent.

For this analysis, CalRecycle focuses on the capacity to produce “bales of paper” used as feedstock for manufacturing. Due to California’s prominent curbside collection programs, there is a robust infrastructure for producing paper bales.

Existing Paper Processing Capacity

The move toward single-stream recycling (all recyclables in one bin) in California over the last 20 years has necessitated a parallel growth in sorting and processing facilities. Materials recovery facilities (MRFs) accept material that is aggregated from residential and commercial curbside recycling bins and moved through a series of positive or negative sorts, where machines and/or workers remove and segregate the recyclable

from the non-recyclable material. Though single-stream recycling collection is the most common collection method in California, some jurisdictions have mixed-waste collection, in which customers place solid waste and recyclables in the same bin. A small number have dual-stream recycling, where paper is placed in separate bins apart from other recyclables to reduce contamination.

It is difficult to estimate the capacity for producing paper bales for many reasons. California has 319 material recovery and mixed-waste processing facilities.[20] The capacity of any one facility is generally determined by its size and the operator's ability to move material quickly through and off the property. While facilities have a permitted maximum capacity, many do not operate at this level. Facilities also have some flexibility to sort and segregate different materials based on current markets and demand from brokers, so the production of paper bales will not be consistent from month to month or year to year. In addition, operational capacity is generally determined by the availability of workers, the speed of the sorting lines, and the amount of available space for storing bales of sorted material.

Other factors that influence the production of paper bales are the availability of non-contaminated material and seasonal demand of paper. Globally, contamination standards for paper bales are becoming more stringent. In response, facilities are slowing down their sorting lines to remove more potential contaminants that could result in more residual paper being sent to disposal. In winter, paper contamination increases because more paper is wet and cannot be recovered. Seasonal trends in e-commerce also impact the amount of paper coming into sorting facilities.

Expanding Paper Processing Capacity

Expanding capacity to produce paper bales would result from new processing facilities coming online or retrofits of existing facilities. CalRecycle is not aware of any large-scale projects for new facilities processing paper from curbside or specialized collection programs. There has been increased discussion about secondary processing facilities (often called secondary MRFs) that re-sort residuals sent from MRFs. A recent report published by Titus Services, a company that runs a pilot facility in Los Angeles, states that its facility recovers 50 percent of the residual stream. Of this, 30 percent is fiber. After Titus' Pacific Northwest Secondary Sorting Demonstration Project, the company estimated that it could recover 23,000 tons of mixed paper and 2,800 tons of cartons from Oregon and Washington.[21]

Retrofits of existing facilities to expand paper capacity include increasing a facility's physical footprint to build more storage and holding space or technological upgrades. Common improvements include adding optical sorters, specialized screens, and robotics. Many of the upgrades made in the last two years have been in response to international demand for reduced contamination in paper bales. A Recology facility in San Francisco completed a $14 million upgrade in 2018 that included new optical

sorters and equipment for sorting smaller materials that will help the company meet new quality standards.[22]

Because processing facilities have some flexibility in production, there is the opportunity for facilities to increase the amount of paper bales produced. This is bounded by the quality and amount of the incoming material as well as the value of the bales on the domestic and international markets. When scrap paper value is high, processors are incentivized to make more of these bales.

Expanding Markets for Bales

The capacity to use paper bales is growing in North America. Seventeen planned projects being built through 2022 will add about 3.5 million tons of capacity for OCC and mixed paper recycling. This includes new paper mills and changes to existing mills or machines brought out of retirement or converted to make different products. Most of the increasing capacity is for OCC, but mixed paper (specifically residential) will be accepted by at least six of the facilities. Two others will accept beverage cartons, aseptic packages, and commercial food-contaminated paper.[23] Two of the 17 expansions are in Mexico. Further growth in the export of paper to Mexican facilities may be forthcoming, as Los Angeles Sanitation has publicly stated that it is pursuing trade agreements with mills in Baja California.[24]

Finding 1-2: Collection Programs Are Critical for Infrastructure Development

The SB 1383 Infrastructure and Market Analysis report found the following:

1. Developing mandatory organics collection programs is key to growing the state's organics processing infrastructure.
2. Facilities only expand when new collection programs are implemented or existing programs broaden.
3. Seventy-eight percent of respondents cited new processing contracts as a reason to enlarge their facility.[25]

According to a CalRecycle survey of compost operators, economic barriers to facility expansion include challenges acquiring feedstocks (18 percent). Respondents also reported that competition from lower-priced disposal alternatives is a barrier to expansion, including direct land application (16 percent) and alternative daily cover (ADC) (12 percent)[§]. The report states that dedicated feedstock contracts are necessary to overcome the cost and risk faced by compost facility developers when creating new processing capacity.[26]

[§] Note that organic material used for ADC is not considered a reduction in landfill disposal under the SB 1383 regulations.

Likewise, AD operators have noted the importance of obtaining long-term feedstock agreements. Several operators have had to scale back or delay expansion plans, delay start of operations, or shut down completely due to lack of feedstock agreements. For AD facilities, consistent biogas production—a primary source of revenue—depends on consistent sources of quality feedstock.[27]

The requirement in the SB 1383 regulations that jurisdictions implement mandatory organics collection programs for all organic waste generators is designed to facilitate organics processing infrastructure expansion and development. Collection of source-separated organic waste, and feedstock agreements between haulers and organic waste processing facilities, will help facilities justify the expenditures necessary to expand and develop additional capacity.

Analysis Item 2: Commitment of State Funding and Adjustment of Local Rate Structures for Solid Waste and Recycling Services to Support Infrastructure Expansion

Finding 2-1: The State Has Awarded Nearly $140 Million in Grants to Organics Recycling and Recovery Projects

The state has awarded nearly $140 million in grants to organics recycling and recovery projects, in the form of grants and loans to encourage infrastructure development. These investments are largely funded through California Climate Investments using Cap-and-Trade auction proceeds.

Since 2014, CalRecycle has received 185 applications seeking $338 million in grant funding. To date, CalRecycle has awarded $72.5 million in grants to 16 compost and nine AD infrastructure projects, expanding total annual capacity to recycle organic material by about 1.5 million tons. Nearly $20 million has been awarded to 64 food prevention and rescue grants. The 2020 Annual Report to the Legislature on California Climate Investments reports CalRecycle's Waste Diversion programs are among the most cost-effective mechanisms to reduce greenhouse gas generation.[28]

CalRecycle is one of several state agencies investing in organics processing infrastructure. The California Energy Commission (CEC) has awarded $48 million in grants to AD and AD-related projects. The California Clean Water State Revolving Fund (CWSRF) has funded a handful of co-digestion projects and should be explored as a potential source of funding for future co-digestion projects.

The California State Treasurer's Office provides additional incentives. The California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) provides sales and use tax exclusions to projects that create jobs and reduce greenhouse gas emissions, and the California Pollution Control Financing Authority (CPCFA) provides tax-exempt private activity bonds that facilitate low-cost financing to qualified waste and recycling projects. Both CAEATFA and CPCFA are administered by the State Treasurer's Office.

As the state looks toward economic recovery after the fallout of COVID-19, continued and expanded investment in developing organics recycling collection and infrastructure provides unique opportunities to create reliable, in-state jobs while also achieving our climate goals.

The federal government offers funding programs for green infrastructure that could be utilized by local jurisdictions and facility operators. In June 2020, the U.S. House of Representatives released H.R. 2, the Moving Forward Act, which, if passed, would include tax incentives that could be utilized for biogas projects.[29,30] In addition, CalRecycle has 13 shovel-ready organics projects if the federal stimulus money is made available and directed toward organics infrastructure development. These compost and anaerobic digestion grant projects passed CalRecycle's Organics Grant Program scoring criteria; however, there was not enough funding available for the projects.

Achieving the goals of SB 1383 will require continued and expanded investments from the public sector, including federal, state, and local government funding, and the private sector. Funding should continue to include incentive programs and market development, in addition to grants and loans.

At the state level, expanded funding could be generated through increases to the landfill tip fee. The landfill tip fee is the Integrated Waste Management Act's (IWMA's) principal funding source and supports CalRecycle programs and oversight cost. It was derived from a per ton disposal fee that was capped at $1.40 in 1995 and remains one of the lowest fees in comparison to other states and developed countries. If the tip fee were modernized and adjusted for inflation, it could provide a sustainable funding stream at the state level to support organic waste recycling and disincentivize disposal.

Finding 2-2: Expansion of Local Programs for Residential and Commercial Collection, Recycling, and Recovery of Organic Waste Will Be Necessary

Building on statewide efforts to implement AB 341's Mandatory Commercial Recycling Law (Chesbro, Chapter 476, Statutes of 2011) and AB 1826's Mandatory Commercial Organics Recycling Law (Chesbro, Chapter 727, Statutes of 2014), achieving the goals of SB 1383 will require increased participation in residential and commercial organics collection programs. To meet the SB 1383 goals, the regulations mandate that all organic waste generators—residents and businesses—must receive and actively participate in organic material collection programs. While most of the state's jurisdictions already require mandatory residential organics collection service, that is not the case with respect to commercial collection services. Jurisdictions that are implementing mandatory commercial organics recycling programs are better positioned to meet the requirements of the regulations. Currently, there are more than 200 jurisdictions that are expanding their commercial collection programs to provide for mandatory commercial organics recycling collection programs. These jurisdictions are addressing rate changes, education, and monitoring activities necessary to improve overall participation in commercial collection programs. By implementing mandatory collection programs, these jurisdictions will likely be able to meet regulatory requirements before January 1, 2022.

Jurisdictions that have not made progress in planning and implementing organics recycling programs under previous statutes will require more significant actions to implement and fund programs to meet the requirements of SB 1383. Importantly, SB 1383 regulations allow implementation flexibility to help these communities achieve compliance. For example, jurisdictions can choose to meet the collection services requirement by having residents and businesses source-separate their material or by having a more robust processing facility that separates the material.

While some jurisdictions may need to expand their services to comply with SB 1383, there will be economic benefits to local jurisdictions and ratepayers through economic development and improved environmental quality. Direct economic benefits include the creation of more than 12,000 permanent recycling and manufacturing jobs and will provide job opportunities to disadvantaged and low-income communities.[31] There will be increased revenues from sales of products including recycled content paper, cardboard, compost, and renewable gas. This will be especially important for economic recovery after the COVID-19 pandemic ends. Environmental benefits include improved air quality and therefore decreased health impacts—such as premature deaths and hospital visits—especially for sensitive groups such as children, the elderly, and people with chronic heart or lung disease. This will result in hundreds of millions of dollars saved in health care costs throughout the state.

Analysis Item 3: Progress in Reducing Regulatory Barriers to Siting Organics Recycling Facilities and Timing and Effectiveness of Policies to Facilitate Permitting of Organics Recycling Facilities

Significant expansion in infrastructure is needed to provide the recycling capacity necessary to meet the SB 1383 disposal reduction goals. To ease community concerns on new or expanded solid waste facilities, the SB 1383 regulations updated Title 27 Regulation, to require a facility operator to hold a public meeting with any affected disadvantaged communities within 180 days of submittal of a permit application package. The enforcement agency also must hold informational meetings for new and revised full solid waste facilities permit applications; the meetings must be located close to the facility and close to affected disadvantaged communities.

Finding 3-1: Regulatory, Permitting, and Land-Use Challenges and Policies to Facilitate Permitting of Compost Facilities

Composters seeking to expand their facilities face a number of challenges. Compost facilities are ideally located between areas where organic waste is generated—which is often in dense urban centers—and the primary market for finished compost, which is agriculture. Appropriate organic materials management includes complying with state and local requirements and regulations that are designed to protect air quality, water quality, and public health. These requirements are also necessary to ease community concerns and address local land-use issues.

To support the goals and requirements of California legislation—including AB 1045 (Irwin, Chapter 596, Statutes of 2015), AB 341, and SB 1383—CalEPA, CalRecycle, the State and Regional Water Boards, CARB, air districts, and CDFA have been collaborating to effectively develop organic waste processing and recycling infrastructure and promote product uses to increase the diversion of organic wastes from landfills.

CalEPA has recommended these agencies continue to address technical barriers to constructing and permitting compost facilities statewide.[32] Since statewide laws and planning requirements set minimum pollution control standards that apply to organic materials management infrastructure, and local and regional authorities establish the rules and enforce the laws, technical and complex processes are required to develop protective solutions.

Air Quality Requirements

State agencies, air districts, the composting industry, and stakeholders have acknowledged the challenges inherent in siting and permitting new and expanded organics recycling facilities while protecting air quality. In response to these challenges, CalRecycle and CARB convened a Compost Working Group, which also includes many of the air districts and the California Air Pollution Control Officers Association (CAPCOA). The Compost Working Group collaboratively developed a discussion paper that identified specific action items to assist composting project planners with the air permitting process.[33] To support this effort, CalRecycle is in the process of implementing a research contract that will assist both compost facility operators and regional air district staff on how composting operations can be managed to reduce air pollutants. CalRecycle recognizes the importance of working with all agencies and stakeholders involved to achieve statewide goals that reduce greenhouse gas emissions while also protecting the environment, public health, and communities.

While diverting organic waste from landfills reduces methane, the composting process and the equipment used at compost facilities can, at the local level, generate criteria air pollutants such as volatile organic compounds (VOCs), nitrogen oxides (NOx), and particulate matter. Equipment used at compost facilities can generate NOx and fine particulates. Based on federal and state ambient air quality standards and attainment status, local air districts may require best management practices (BMPs) or implementation of Best Available Control Technologies (BACT) to reduce emissions. BMPs to reduce pile emissions include feedstock holding-time limits, maintaining adequate moisture and oxygen content, and controlling dust. Emissions control technologies typically include forced aeration with full enclosure, fabric covers, or biofiltration. BMPs to reduce emissions from equipment used at compost facilities include replacing old diesel engines with newer ones or converting diesel engines to electric-powered equipment. Converting a facility to forced aeration or bringing three-phase electric power to a relatively remote composting site are generally multi-million-dollar projects.

Two Types of Commercial Composting

There are two basic types of commercial composting methods: open windrows and aerated static piles (ASP). According to a 2018 survey, about 71 percent of compost facilities in California use an open-windrow composting system.[34] Research has shown that ASP composting systems can lower emissions compared to open-windrow systems.[35]

ASP systems use electric blowers to either push or pull air through the compost pile using various fabric covers, finished compost caps, or biofilters that can significantly reduce VOCs and ammonia during the composting process. ASP systems with compost caps are also effective at reducing VOCs and ammonia, but need to be re-applied with

every new pile. ASP systems with a fabric cover are increasingly popular. ASP systems with adequate air flows and a minimum of 80 percent reduction in VOC emissions are mandatory for new facilities in some air districts and will soon be required in others. ASP systems are fast becoming the industry standard. About 25 percent of the compost facilities surveyed in 2018 used an ASP composting system.[36] All new composting sites funded by CalRecycle greenhouse gas grants use a variation of ASP.

Water Quality Requirements

CalRecycle worked closely with the State Water Boards, Regional Water Boards, and various stakeholders to develop the State Water Boards' General Order for Composting Operations (General Order). Compost operations in California must comply with Waste Discharge Requirements (WDRs) to protect water from leachate produced during the composting process. While some compost facilities operate under individual WDRs, most are enrolled in the General Order. The requirements to protect water quality include installing engineered concrete pads, ponds, and drainage conveyance for facilities that process more than 25,000 cubic yards. The General Order assists the permit processing by providing standardized requirements that are both predictive and protective of the environment and public health.

Finding 3-2: AD Facilities Experience Fewer Regulatory, Permitting, and Land-Use Challenges than Composting Facilities

While AD facilities must comply with all federal, state, and local environmental regulations, operators have reported very few challenges with permitting or meeting air or water quality requirements when siting facilities. However, several proposed AD projects have either been delayed or have not moved forward because of concerns from the public, including proposed projects in Anaheim, Glendale, and Glenn County. Local land-use concerns about AD projects include increased traffic, odors, fire or explosion from a methane gas leak, and potential groundwater pollution from runoff.

Analysis Item 4: Status of Markets for Compost, Biomethane, and Other Products Generated by Facilities, Including Cost-Effectiveness of Electrical Interconnection and Common Carrier Pipeline Injection

To create markets for products generated by organic waste recycling facilities, the SB 1383 regulations will require local governments by January 1, 2022, to purchase a

percentage of diverted organic waste in the form of recovered organic waste products. CalRecycle will notify each jurisdiction annually of its recovered organic waste product procurement target based on a formula described in the regulations. Jurisdictions may procure the following recovered organic waste products to comply with the requirements:

- Compost
- Mulch that meets the land application requirements in SB 1383 regulations
- Renewable gas used for fuel for transportation, electricity, or heating applications
- Electricity generated from biomass conversion of municipal-solid-waste-derived organic waste

Finding 4-1: While Markets and Demand for Compost Are Currently Strong, SB 1383 Will Substantially Increase Production, thus Driving a Need for Expanded Demand

Approximately 1.8 million tons of compost were produced by permitted compost facilities in 2017.[37] While markets and demand for compost are currently strong, SB 1383 will substantially increase compost production. With successful implementation of SB 1383, CalRecycle estimates that an additional 5.5 million tons will be produced by 2025. As described further in Finding 4-4, increased end-use markets will be required to avoid disposal of compostable material.

Compost facilities produce a variety of products, including compost, mulch, and fuel for biomass facilities, as well as "overs" that are often sent to landfills for use as ADC[**] and other beneficial uses including erosion control and slope stabilization. Overs are produced at the end of the composting process when the finished compost is sorted by size through mechanical screens. The finer material is what most people think of as compost, while the rest is considered the overs. Overs are commonly recycled back into the compost process, although they can be contaminated with plastics and other non-organic material. Contamination, which is more common in waste streams that contain food waste, impacts the marketability of compost. Thirty-eight percent of respondents to the 2018 survey stated that they limit contamination by not accepting food scraps.[38]

Thirty percent of the respondents stated that contaminated feedstock is a barrier to expanding their facility.

The 2018 survey of compost facilities found that about 65 percent of the compost produced by survey respondents in 2017 was sold to agriculture, including both conventional and organic farmers. Certified organic farmers operate under an approved

[**] Note that organic material used for ADC is not considered a reduction in landfill disposal under the SB 1383 regulations.

organic system plan that ensures that compost meets United States Department of Agriculture National Organic Program (NOP) standards, administered in California by CDFA. These plans include documentation of compost use. Approximately 40 percent of the respondents to the 2018 survey receive organic certification from CDFA's Organic Input Material Program (OIM) and the Organic Material Review Institute's (OMRI) compost registration program.[39] In 2016, there were more than 1 million acres in organic farming production in California with crops worth nearly $3 billion.[40]

Nurseries, landscapers, California Department of Transportation (Caltrans), and local municipal programs are also important markets for compost. California's Model Water Efficient Landscape Ordinance requires compost application at a rate of 4 cubic yards per 1,000 square feet for all planted areas for new or remodeled landscapes.[††] Low impact development is a growing field, and compost can be an important part of engineered soil mixtures to reduce runoff and promote water percolation. Caltrans used about 80,000 tons of compost in 2016 along state highways to reduce erosion and support vegetation. According to the 2018 survey, 5 percent of the compost produced by respondents in 2017 was used by Caltrans.[41]

Co-Benefits of Compost Use

Governor Brown signed Executive Order B-55-18, setting a goal of achieving carbon neutrality no later than 2045 and directing the California Natural Resources Agency, the California Environmental Protection Agency, CARB, and CDFA to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Beyond reducing methane generation in landfills, composting organic waste has demonstrated benefits for soil health, food security, and climate stabilization, and is a critical tool to meeting California's goal for Carbon Neutrality by 2045. Applying compost to rangelands can sequester carbon for up to 30 years, enhance productivity, increase water infiltration, and recharge groundwater.[42] CalEPA found that applying compost can sequester carbon and enhance water-holding capacity, forage production, and nutrients in soil.[43] Finally, CARB found that application of compost can reduce irrigation and landscaping water demands and help with erosion control after fires.[44]

Requirements for State Departments to Use Compost

AB 2411 (McCarty, Chapter 238, Statutes of 2018) requires the Department of General Services (DGS) and CalRecycle to maintain specifications for the purchase of compost by the state and allows CalRecycle to develop a program to increase the use of compost products in agriculture applications. AB 2411 also requires the Department of Forestry and Fire Protection (Cal Fire), the Department of Parks and Recreation (Parks), and DGS to initiate programs to restore public lands using compost and other

[††] Compost use is not required if soils have greater than 6 percent organic matter in top six inches of soil.

products wherever possible, and requires CalRecycle to evaluate compost, co-compost, and chemically fixed sewage sludge as landfill cover materials. CalRecycle staff will provide an update on specifications for the purchase of compost by the state, programs to increase use of compost products in agriculture, utilization of compost by Cal Fire, Parks, and DGS to restore public lands, and an evaluation of compost, co-compost, and chemically fixed sewage sludge as landfill cover materials at CalRecycle's monthly meeting by December 2020.[45]

Municipal Markets

The 2018 survey found that 3 percent of the compost produced by respondents in 2017 was sold to municipal projects.[46] The procurement requirements in the SB 1383 regulations will require local governments to procure products made from organic waste, and are intended to help drive demand for the increase in the production of compost and mulch to create end-use markets. This will ensure that the goals of SB 1383 are met by ensuring diversion of organic material from disposal.

Finding 4-2: Procurement Requirements and Market Mechanisms Will Help Fuel Energy Markets and Reduce Economic Barriers for AD Projects

While AD facilities experience fewer regulatory challenges to building and expanding capacity, uncertainties about markets for biomethane create economic and market barriers. Due to high capital expenses, AD facilities often rely on revenue from renewable energy incentives to make projects economically feasible. The SB 1383 procurement requirement will be an additional important tool to help increase demand for energy and fuel derived from biomethane generated by AD facilities. There are three primary markets for biomethane utilization: vehicle fuel or as a feedstock to produce a vehicle fuel; general use including industry, commercial and residential heating; and stationary electricity generation (large power plants or distributed generation, e.g., small engine generators and fuel cells).

Vehicle Fuel

While upgrading biogas to RNG for use in natural gas vehicles (as CNG or LNG) remains a strong market for biomethane generated from AD, there are uncertainties that create potential economic and regulatory barriers. The cost to produce RNG fuel is higher than the cost to produce fossil fuels (compressed natural gas and diesel) and, therefore, the price of RNG fuel would be higher than the price of fossil fuels in the absence of a carbon credit market or other incentives. As the supply of RNG fuel increases with SB 1383 implementation, the procurement requirements will help to increase demand. As RNG becomes more accessible, jurisdictions with fleets (e.g., buses) that already use compressed natural gas (CNG) can easily switch those vehicles to RNG if they have not already done so. According to CARB, currently, more than 70

percent of CNG and LNG demand for transportation in California is already met by RNG.[47]

Credit markets are an important mechanism to help offset the higher costs of production and lower the price of RNG fuel. There are two credit markets that RNG fuel producers can take advantage of: The Federal Renewable Fuel Standard (RFS) and the California Low Carbon Fuel Standard (LCFS).

Renewable Fuel Standard (RFS)

The Renewable Fuel Standard (RFS) is a federal regulation mandating that transportation fuel sold in the United States contain a minimum volume of renewable fuel. Biofuels are tracked and traded with Renewable Identification Numbers (RINs) issued by the Environmental Protection Agency (EPA). Obligated parties under the RFS are refiners or importers of gasoline or diesel fuel, and compliance is achieved by either blending renewable fuels into transportation fuel, or by obtaining RINs to meet an EPA-specified Renewable Volume Obligation (RVO).

AD projects may be eligible to generate RINs under the RFS if the biogas is processed into a transportation fuel and used in the transportation sector. Each fuel type is assigned a D-code based on the feedstock, fuel type produced, energy inputs, and GHG reduction thresholds. Cellulosic biofuel, D3, is the most valuable RIN currently available. RNG from landfill gas projects and projects that digest animal manure, crop residues, separated yard waste, or wastewater sludge are eligible for the higher-value Cellulosic Biofuel D3 RIN, which between January and April of 2020 was priced from $0.88 to $1.51/RIN.[48] However, projects that digest food waste (that is not predominantly cellulosic) are eligible for the far less valuable Advanced Biofuel D5 RIN, which was priced from $0.39 to $0.62/RIN for the same time period. The fact that fuel produced from landfill gas is eligible for D3 RIN value creates a disincentive for food waste diversion through AD. Further, if a wastewater treatment plant or green waste digester receives any amount of food waste, they are no longer eligible for D3 RIN and instead earn D5. There are currently two stand-alone digesters in the state that receive RINs.

Food waste digestion facilities producing transportation fuel are negatively impacted financially because they receive less valuable RINs, and the RFS program's prioritization of incentives for landfill gas projects is at odds with California's landfill diversion goals. The statutory definition of cellulosic biofuel excludes food waste, and therefore Congress would have to revise the definition of food waste for it to be eligible for D3 RINs.

Low Carbon Fuel Standard (LCFS)

The goal of the Low Carbon Fuel Standard (LCFS) is to reduce the carbon intensity of transportation fuels by at least 20 percent by 2030. Under the LCFS, the "carbon

intensity" (CI) value of a fuel is calculated using life cycle analysis (LCA), which considers the GHG emissions during the entire fuel cycle, including feedstock production, conversion to fuel, transport to market, and fuel use. Credit generation is calculated based on the alternative fuel's CI relative to the annual CI standard (benchmark). Each credit represents 1 metric ton CO_2 equivalent. Credit prices averaged $192 per credit in 2019. Credit price can be translated to a dollar value per unit of alternative fuel with a given CI using the LCFS Credit Value Calculator available on the LCFS Dashboard; RNG can earn LCFS credit value ranging from $8 to more than $80 per MMBtu of fuel. Recently approved amendments to the LCFS would set a price cap at $200 per credit in 2016 dollars, adjusted for inflation, as a cost containment measure. CARB estimated that for a 100,000-ton-per-year AD facility to be economically viable, LCFS credit prices need to be between $150 and $200 per credit, assuming a RIN price of $0.50 per RIN and a carbon intensity of -15 gCO_2/MJ.[49]

LCFS pathway applicants may obtain a certified CI score by submitting an application with a minimum of three months of operational data to CARB through the LCFS Alternative Fuels Portal. The applicant calculates a CI using one of CARB's Simplified CI Calculators for LCA models and documentation. The operational data must be validated by an accredited third party, and CARB reviews and certifies the application. Once certified, the CI can be used to report quarterly fuel transactions and generate credits in the LCFS Reporting Tool and Credit Bank and Transfer System (LRT-CBTS). To maintain a valid CI, fuel pathway holders are responsible for supplying annual CI data. A third party must verify the CI data, which is an additional cost for the applicant. Two stand-alone food and green waste AD facilities in California are participating in the LCFS program as of May 2020 and are generating credits.

Under the LCFS, opportunities for biogas are not limited to their use as renewable CNG and LNG. In addition, hydrogen and electricity produced from biogas is eligible for LCFS crediting.

Low-CI electricity produced from biogas can be used in transportation including electric vehicle charging, fixed guideways, transit buses, electric forklifts and other electric cargo handling equipment, and electricity for ocean-going vessels at berth. Such projects must supply biogas directly to the generator, and may either use the electricity onsite or supply it to the California electrical grid. The LCFS requires retirement of renewable electricity certificates (RECs) to demonstrate deliverability and ensure that the low-CI electricity is not also counted under the state's renewables portfolio standard (RPS) or other voluntary programs. This option allows for remote AD projects that lack access to the natural gas common carrier pipeline to supply transportation fuel and participate in the LCFS.

Hydrogen is commonly produced from natural gas using steam methane reformation (SMR). An AD project may pipeline inject or directly supply RNG to a hydrogen production facility to displace its use of fossil natural gas. The renewable hydrogen fuel is eligible for LCFS crediting when used in fuel cell vehicles, or when used in the

production of another transportation fuel that is consumed in California. For example, hydrogen is used in hydrotreating to produce renewable diesel and jet fuel from used cooking oil or inedible animal fats. Under the LCFS, the renewable diesel's CI would reflect the decreased GHG emissions from its use of RNG, rather than NG, to produce hydrogen. Similarly, conventional petroleum refineries can generate credits for using RNG-derived hydrogen in place of natural gas.

General Use Including Industry, Commercial, and Residential Heating

Injecting biomethane into the common carrier pipeline is an effective way to distribute RNG for a variety of uses, including for use as fuel for transportation. AB 1900 (Gatto, Chapter 602, Statutes of 2012) required the California Public Utilities Commission (CPUC) to adopt standards for biomethane specifying concentrations of constituents of concern (COCs) to protect public health and ensure pipeline integrity and safety, as well as requirements for monitoring, testing, reporting, and recordkeeping. The bill required the four investor-owned utilities (IOUs) to comply with those standards and requirements and to develop tariffs that incorporated them. The bill also directed the CPUC to develop programs and policies to encourage in-state production and distribution of biomethane.

In January 2014, the CPUC issued Decision 14-01-034, which identified concentrations for 12 COCs to protect human health and five to protect pipeline safety and integrity, for which monitoring, testing, reporting, and recordkeeping are required.[50]

The cost to connect to the common carrier pipeline is expensive. Southern California Gas Company (SoCalGas) estimates that the interconnection capacity study and preliminary and detailed engineering studies could cost up to $680,000 combined, and that these studies could take up to 275 days to complete.[51] Pacific Gas & Electric (PG&E) estimates that interconnection costs $2 million to $5 million and could take up to 24 months, depending on the project's scope, the season during which construction happens, and the location of the project.[52] SoCalGas and San Diego Gas & Electric Company (SDG&E) estimate the costs of monitoring and testing could be as high as $39,000 the first year and $25,000 in subsequent years. They also project the post-injection ongoing costs of maintaining and operating the biomethane facility at $3,500 per month.[53]

In 2015, the CPUC authorized funding of $40 million for a monetary incentive program that allowed biomethane producers that successfully inject into the pipeline as much as 50 percent of a biomethane project's interconnection costs, up to $1.5 million.[54] In 2016, AB 2313 (Williams, Chapter 571, Statutes of 2016) increased this monetary incentive from $1.5 million to $3 million and extended the incentive program from June 11, 2020, to December 31, 2021.

Currently there is one municipal solid waste (MSW) AD facility in California that injects biomethane into the pipeline. The CR&R Waste and Recycling Services AD facility in

Perris, Calif., invested more than $7 million to install 1.4 miles of pipeline and gas upgrading and monitoring equipment.[55]

On January 27, 2020, the CPUC initiated Rulemaking 20-01-007, which states that state and local climate change policies will result in reduced demand for natural gas over the next 25 years. One of the stated goals of the order is to "implement a long-term planning strategy to manage the state's transition away from natural gas-fueled technologies to meet California's decarbonization goals."[56] Although state laws and policies promote the production and distribution of biomethane, it is unclear how this transition away from natural gas will impact AD in the future. CalRecycle will continue to monitor this rulemaking and analyze its impact on biomethane pipeline injection from digestion of MSW at AD facilities in California.

Electricity Generation

Most AD facilities in California, including five stand-alone AD facilities and three WWTPs, currently generate electricity, which is sent to the electrical grid

The Bioenergy Market Adjusting Tariff (BioMAT) program was established through SB 1122 (Rubio, Chapter 612, Statutes of 2012). BioMAT is a feed-in tariff program, requiring California's major electrical IOUs (SDG&E, PG&E, and SCE) to collectively procure up to 250 MW of bioenergy from small bioenergy renewable generators. These generators are defined as less than 5 megawatts (MW) in nameplate capacity, export less than 3 MW to the grid, and must utilize organic waste feedstocks from eligible Fuel Resource Categories (i.e., Category 1, 2, and/or 3). At least 110 MW of the required 250 MW must be procured from eligible generators that utilize the Category 1 fuel sources to produce electricity. These fuel sources are municipal biogas from wastewater treatment, municipal organic waste diversion, food processing wastes, and co-digestion.

Electricity procured by the IOUs through a BioMAT Power Purchase Agreement (PPA) will be purchased at a fixed contract price over the delivery term (10-, 15-, or 20-year terms) and counts toward the utilities' RPS targets. The contract price for each Fuel Resource Category began at the first BioMAT auction in February 2016 at a set floor price of $127.72/MWh, but each category's price is independently adjusted each period depending on the market response and interest.

In general, participation in BioMAT has been minimal, especially for Category 1 Biogas, which remains at the floor price of $127.72/MWh. Seven Category 1 PPAs have been signed to date: Zero Waste Energy Development (ZWED) in San Jose, Kompogas San Luis Obispo, Central California Fuel Cell 2 in Tulare County, Organic Energy Solutions in San Bernardino, Napa Recycling & Waste Services' Napa Recycling Biomass Plant, Tajiguas Resource Recovery Project AD Facility in Santa Barbara County, and Lakeside Biogas.

BioMAT is currently undergoing a program review at the California Public Utilities Commission with the intent to simplify the program, expand participation, address program barriers, and better align it to help achieve statewide goals. Current barriers of significance for the BioMAT program include interconnection burdens and high costs and the contract pricing mechanism, both of which are under evaluation in the BioMAT program review underway.

One of the most significant barriers for the BioMAT program is interconnection costs and timelines. Currently, projects are required to complete an interconnection study to apply for participation in BioMAT. Then, they will stay in their IOU's interconnection queue and the BioMAT queue until they accept a contract price. This means projects must pay for the interconnection studies and queue costs without a signed PPA, which is a significant financial burden for small generators. The sometimes lengthy process and potential delays of interconnection can also create uncertainty about whether a project can meet its operation date outlined in their PPA. These delays could inhibit a project from meeting its contracted operational date, causing a project to be in breach of its PPA. This could result in PPA termination and substantial monetary losses. This uncertainty further limits program participation and increases financing costs for projects that do participate.

Some of these interconnection hurdles, however, were addressed in the CPUC's 2016 implementation of SB 840 for Category 3 projects (i.e., sustainable forest biomass projects, which utilize feedstocks from high hazard zones for wildfire and falling trees). These projects can now leave the interconnection queue while remaining in BioMAT. This measure was intended to provide streamlined interconnection requirements and accelerated price adjustments for sustainable forest biomass projects. CPUC's SB 840 Proposed Decision states that legislative changes for Categories 1 and 2 will "be the subjects of further development of the record and subsequent Commission decisions."[57]

Another barrier under review is the market depth pricing mechanism. This currently requires that, after at least one of three projects has accepted a contract price, at least five additional applicants are needed to trigger another price adjustment. However, due to low participation in the program and a low number of projects entering these queues, PPA contract prices for the purchase of electricity have remained low, especially for Category 1 Biogas projects. Consequently, multiple projects have entered into BioMAT Fuel Resource Category queues but have not yet accepted offer prices or executed PPAs because they are waiting for the price adjustment. Requiring a higher market depth before a price adjustment will be made could cause applicants to not accept a contract price and to instead wait in their respective queue for a contract price increase. This may put these renewable bioenergy projects on hold from development.

Finding 4-3: Commodities Prices, National Sword, and E-Commerce Align with the Increase in Disposal of Cardboard

According to the 2018 Waste Characterization Study, the amount of paper disposed in California increased by 1.4 million tons between 2014 and 2018. Eighty-three percent of this increase was from old corrugated cardboard (OCC), which increased 122 percent, from just under 1 million tons to 2.1 million tons.[58] During the same time period, the amount of OCC recovered domestically at U.S. paper and board mills increased by only 10 percent, or 2.1 million tons[59], and the amount of OCC exported from California increased by only 15 percent, or 737,891 tons.[60]

All U.S. exports of OCC and kraft paper increased 30 percent in 2018, but this was not enough to keep up with consumption. Exports (from California ports) to China increased in the last quarter of 2018 as Chinese importers attempted to purchase as much material as possible before new quotas took effect in 2019.[61] In 2019, U.S. OCC exports declined by 1.9 million tons,[62] and California OCC exports declined by 526,996 tons.[63] Recent statements by China's Ministry of Ecology and Environment suggest that China is likely to ban imports of recovered fiber, including OCC, by 2021.[64] Due to these import restrictions on recovered paper, many North American paper mills have announced plans for expanded domestic processing capacity. However, these expansions are not expected to be operational for at least several more years.[65, 66]

Average OCC domestic commodity prices for the Bay Area in December 2018 ($55 to $60 per ton) were about half what they were in January 2014 ($110 to $120 per ton), and prices continued to drop in 2019. As of February 2020, the domestic price was $20 to $25 per ton. The price for OCC exported to China also dropped by about 15 percent from January 2014 ($180 to $183 per ton) to December 2018 ($152 to $155 per ton).[67, 68, 69]

Consumption of OCC has increased dramatically as e-commerce sales have increased. According to RISI, the amount of OCC used in e-commerce and mail-order retail is seven times higher per dollar of sales than in traditional retail sales. In 2018, 17 percent of retail sales came from e-commerce and mail order sales.[70] The U.S. Department of Commerce estimates that e-commerce sales have increased by 68 percent, from $305 billion in 2014 to $514 billion in 2018.[71, 72] This dramatic increase in e-commerce, combined with a decline in domestic prices and import quotas that limit the amount of OCC China accepts, could explain why disposal of OCC increased so significantly between 2014 and 2018.

While these materials are technically recyclable, the amount of paper and OCC disposal in 2018 alone exceeds the 5.7-million-ton disposal target required by SB 1383. This suggests additional measures may be necessary to address this specific portion of the waste stream.

Finding 4-4: SB 1383 Procurement Requirements Are Necessary to Help Achieve the Organic Waste Diversion Goals by Driving Markets for Compost and Biomethane

CalRecycle estimates that in 2025 there will be an additional 5.5 million tons of compost and more than 14 billion cubic feet of biomethane produced as a result of SB 1383 implementation. Strong end-use markets must be encouraged and developed to absorb this increase in recovered organic material to meet the goals of SB 1383. Increased end-use markets will ensure that this substantial increase in recovered organic material remains diverted from disposal. SB 1383 regulations require jurisdictions to annually procure a quantity of recovered organic waste products including compost, renewable gas for transportation, electricity from biomass conversion, or mulch. These procurement requirements will increase markets for compost by providing certainty for demand of the finished product. Purchasing and using compost and mulch increases carbon storage and water retention in soils and thus reduces the need for fertilizers, pesticides, and water. The procurement requirements will also help drive demand for products derived from biogas generation at AD facilities.

The procurement requirements will motivate local jurisdictions to ensure food and green waste generated by their citizens has very few contaminants, as it would cost them much more to have it removed from the product they are required to procure. It would be unacceptable to the public for jurisdictions to use material in public spaces, parks, and landscaping that has visible contamination. Through education, monitoring, and enforcement, jurisdictions will be well positioned to ensure their generators do not contaminate the feedstock.

Several state policies support procurement of products produced by organics recycling. AB 1045 (Irwin, Chapter 596, Statutes of 2015) required CalEPA—in coordination with CalRecycle, SWRCB, CARB, and CDFA—to “develop and implement policies to aid in diverting organic waste from landfills by promoting the use of agricultural, forestry, and urban organic waste as a feedstock for compost and by promoting the appropriate use of that compost throughout the state.”

In its November 2018 report, CalEPA recommended that “CalEPA, CalRecycle, CARB, and CDFA should consider working with other state offices to determine if opportunities exist to enhance state and local government procurement of compost and other value-added soil amendments, as well as biogas products for the transportation sector to help drive the market for such products.” The report further recommended that CalRecycle “consider including local government procurement requirements in its SB 1383 regulations as an additional incentive to help to foster a more vibrant market for value-added organic materials products.”[73]

SB 1383 required the California Energy Commission include recommendations for the development and use of renewable gas, including biomethane and biogas, as a part of its 2017 Integrated Energy Policy Report (IEPR). The 2017 IEPR includes the recommendation that "state agencies should consider and, as appropriate, adopt policies and incentives to significantly increase the sustainable production and use of renewable gas" and that "CalRecycle and CARB should determine methods for promoting the use of renewable gas from organic waste recycling in the waste sector."[74]

Compost

A CalRecycle study found that 36 percent of compost facilities sold about 3 percent, or 32,000 tons, of the compost produced in 2017 to municipal projects.[75] CalRecycle estimates that in 2025 local governments would need to procure about 400,000 tons of compost to meet the procurement requirements. This would be enough compost to amend 40,000 acres of parklands per year at an estimated cost of about $12 million to jurisdictions statewide.

Procurement requirements are supported by findings in the SB 1383 Infrastructure and Market Analysis Report. Forty percent of survey respondents said they believe that there will need to be more market development to manage the increase in available compost after SB 1383 regulations are implemented; 24 percent of respondents said they need expansion of existing markets prior to committing to expanding their facilities; and 52 percent responded that the state should work to increase markets for compost. Thirty-six percent already sell compost to municipal markets.[76]

Biomethane

Increased demand for biomethane used for transportation fuel because of the procurement policy, coupled with LCFS and RFS credit markets, could help offset the cost of biomethane fuel production, thereby decreasing the price of fuel at the pump. CalRecycle estimates that the procurement requirements could result in the production of up to 28 million diesel gallon equivalents (DGE) annually—enough to fuel more than 3,000 CNG transit buses per year—at a cost of $10-13 million per year statewide.

CalRecycle estimates that the procurement requirements could result in at least 200 megawatts (MW) of electricity from biomethane production annually—enough electricity to power the Los Angeles City Hall building for 10 years—at an annual cost of about $6.5 million. As more AD facilities come online and participate in the BioMAT program, and as California moves toward 100 percent renewable electricity by 2045 as required by California's Renewables Portfolio Standard (RPS), procuring electricity from biomethane will become more widespread and cost-effective for local governments.

Conclusions

California is the fifth-largest economy in the world, and the state's commitment to the climate-protecting goals of SB 1383 will drive innovation and influence organics policy throughout the nation. As the state looks toward economic recovery after the fallout of COVID-19, building the next generation of recycling infrastructure will create 12,000 permanent green jobs in California.[77] Redirecting organic waste to cleaner activities such as composting and anaerobic digestion will clean our air and prevent $10.4 billion in costs associated with emergency room visits, hospitalization, and mortality.[78]

SB 1383 states that, if this analysis shows that significant progress has not been made, CalRecycle may include incentives or additional requirements in the regulations promulgated pursuant to the statute or provide further recommendations to the Legislature regarding revisions to the organic waste reduction goals. Importantly, the SB 1383 procurement requirements will increase markets for compost, biofuel, and electricity by providing certainty for demand of these finished products, which will ensure significant progress will be made in meeting the state's organic waste reduction goals. CalRecycle estimates that in 2025 there will be an additional 5.5 million tons of compost and more than 14 billion cubic feet of biomethane produced as a result of SB 1383 implementation. This makes it necessary for the state to encourage strong end-use markets to absorb this increase in recovered organic material remains diverted from disposal.

While organics capacity has increased over the past four years by nearly 400,000 tons, disposal of organics increased by more than 2 million tons between 2014 and 2018. California will need to make significant progress to meet the goals of SB 1383. However, recent surveys indicate that the adoption of regulations and new feedstock contracts drive the development of new and expanding organics recovery facilities. [79]

Considering the urgency of reducing short-lived climate pollutants and the importance of regulatory certainty, CalRecycle recommends maintaining the disposal reduction targets set forth in SB 1383. Since the regulations are not effective until January 1, 2022, and entities are currently in the planning or early implementation stages, CalRecycle cannot conclude at this time whether the targets need to be adjusted. The SB 1383 regulations provide jurisdictions with multiple options to comply with SB 1383. For example, the procurement requirements allow for multiple recovered organic waste products (compost, mulch, RNG, electricity) to qualify, and jurisdictions have the flexibility to meet the collection services by having entities source separate or by having a more robust processing facility.

Even after the regulations take effect, there are opportunities for entities to come into compliance rather than being issued a penalty immediately. The regulations build in a

compliance evaluation and enforcement process that provides substantial timelines for jurisdictions to come into compliance before penalties are issued.

As to additional requirements in the regulations, as mentioned in Finding 4-3, existing trends suggest that a more comprehensive approach may be necessary to reduce the disposal of paper and OCC in California. Going forward, CalRecycle may need to place a greater focus on the diversion of the organic portion of packaging waste to meet the SB 1383 targets. Through CalRecycle's packaging workshops and analysis, the department has identified tools that would assist in reducing the disposal of paper and paperboard, such as requiring manufacturers to produce new products with minimum recycled content.

Implementation of SB 1383 is critical to protecting communities from the risks of short-lived climate pollutants and should not be delayed. The adoption and implementation of the regulations will be the leading driver for organics infrastructure development and associated job creation in California. Meeting the state's organic diversion goals by the dates set in law will protect public health, support economic development, and demonstrate California's leadership in the fight against climate change.

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September 23, 2020

Ken DaRosa, Acting Director
California Department of Resources Recycling and Recovery
1001 I Street
Sacramento, CA 95814

Transmitted via email to mattresses@calrecycle.ca.gov

RE: Mattress Recycling Council Proposed 2021 Budget and 2019 Annual Report

Dear Mr. DaRosa,

On behalf of the Rural Counties Environmental Services Joint Powers Authority (ESJPA), I offer comments on the Proposed 2021 Budget of Mattress Recycling Council (MRC), and the 2019 Annual Report. Twenty-four rural counties have formed the ESJPA to provide assistance to solid waste managers in our member counties. These solid waste managers have been 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.

ESJPA supports efforts to increase consumer access to mattress disposal opportunities, including establishing at least one permanent collection facility available in each county. Currently, the program falls short of that goal for rural residents, but we acknowledge that the program has made strides to increase program accessibility overall and in rural and underserved areas and appreciate MRC's commitment to expand its collection network.

Of primary concern to ESJPA in this proposal is MRC's intent to use CalEnviroScreen as a determining factor in its education and outreach efforts.[1] Criteria air pollutants evaluated by CalEnviroScreen—such as ozone, PM2.5, pesticide use, and drinking water contaminants—have no place in a discussion of how best to target underserved areas for recycling mattresses. In fact, this would almost certainly disenfranchise many rural counties, many of which may be low-income or disadvantaged, but meet air quality attainment levels and have few or no permanent collection opportunities. For example, while rural county accessibility to mattress collection is 83%, over 98% of "Environmental Justice" communities have access.[2] Becoming more reliant

[1] Page 12, California Used Mattress Recovery and Recycling 2021 Program Budget.
[2] Page 49, 2019 Mattress Recycling Council California Annual Report

on CalEnviroScreen would, therefore, disproportionately impact progress in rural communities. In addition to CalEnviroScreen, MRC should consider using other parameters to determine low-income communities based on statewide median income, or disadvantaged communities as defined by the Water Code.[3]

MRC has made concerted efforts to implement collection options and conduct education and outreach in rural areas but we still consider some of our communities to be underserved. Also, as an alternative, MRC could consider compliance with the recent adoption of Assembly Bill 187 (Chapter 673, Statutes of 2019), which states:

> *Developing strategies, in consultation with the California Environmental Protection Agency's Environmental Justice Task Force and other relevant parties, for collecting used mattresses for recycling in areas and communities that face unique challenges associated with proper waste management such as poverty, language barriers, and illegal mattress dumping.*

With regard to the 2019 Annual Report, we greatly appreciate MRC's usage of a more appropriate definition of rural, specifically utilizing Public Resources Code Section 40184 as well as the acknowledgement that "rural" can therefore change and complicates year-over-year comparisons.

The geography and population diversity of rural communities complicates the repeated reference to "permanent collection sites" in the Annual Report, for which there is there is no statutory or regulatory basis AB 187 requires "at least one permanent mattress drop off location in each county" (except a county with a population of less than 2,000 people as long as there are at least two collection events per year). Three ESJPA member counties (Del Norte, Modoc, and Plumas) are classified as "permanent" but only have a one location each open 8-10 hours per week. These counties are not mentioned in the Underserved Areas Section.[4] One of these counties collected more than 1,400 mattresses in 2019 at its transfer station where consumers pay a fee per mattress and is open seven days per week while, in this same county, two MRC events were held in in 2019 and collected 299 mattresses. The number of mattresses collected at the "permanent" location are unknown to us.

Clearly, a more convenient "permanent" option is needed that is not solely defined by one day per week. MRC has made considerable efforts to find more permanent locations in the county but has been unsuccessful. A more "permanent" option that is convenient may be a combination of the limited "permanent" location with regular collection events, rather than having events simply supplement "in areas not otherwise served by permanent collection sites."[5]

[3] California Water Code Section 79505.5 (a) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.
[4] Page 50, 2019 Mattress Recycling Council California Annual Report
[5] Page 79, 2019 Mattress Recycling Council California Annual Report

Further, illegal dumping continues to be a problem in rural communities and threatens public health, requiring significant investments by counties and landowners alike to remediate. MRC should prioritize compensating municipalities for its Illegally Dumped Mattress Collection Initiative beyond the modest approach it is poised to take in its 2021 Proposed Budget. In 2019, only 66 entities reported illegally dumped mattresses under the Initiative out of California's more than 500 jurisdictions. This is continued improvement from previous years but still needs significant work since illegal disposal continues. MRC has indicated efforts to expand participation include a major workshop. Despite MRC's efforts, entities are still reluctant to participate. MRC's efforts should be included in the report along with a discussion of reasons for the hesitancy and plans to continue efforts to expand participation.

The Annual Report does not discuss repercussions from wildfires on collection in areas most impacted. Recently, a jurisdiction was informed of a delay in getting more drivers to remove mattress trailers due to the need for drivers for hauling wildfire debris. Was this an issue in 2019? Were collection centers impacted in fire areas? The Annual Report should have a discussion even if no impact was discovered, particularly since catastrophic wildfire events will continue to occur in the foreseeable future. Although we appreciate the analytic, we would further urge the Annual Report to discuss whether the convenience metric of using road miles is affected if service in an area is impacted by snow road closures, which is a regular seasonal occurrence in rural areas.

Lastly, MRC does not anticipate COVID-19 impacts (or wildfires) in its 2021 budget, which we caution may be overly optimistic. To the extent that it does, we believe MRC should use its budgeted reserves, which much be substantially reduced by January 1, 2027 per AB 187. Similarly, MRC should consider higher reimbursement rates for hard to serve rural areas to not only attract participation, but also to offset the higher costs—like transportation—incurred in these areas.

Thank you for the consideration of our comments. We also extend our continued thanks to representatives of MRC, who remain an engaged participant and stakeholder of ESJPA. Should you have any questions, please do not hesitate to contact me (916) 447-4806 or sheaton@rcrcnet.org.

Sincerely,

Staci Heaton
Program Manager

cc: Rural Counties' Environmental Services Joint Powers Authority Board Members
Ryan Trainer, President, Mattress Recycling Council

Treated Wood Waste _ Health and Safety Code Excerpts

Summary
Pursuant to Health and Safety Code Section 25150.7, solid waste landfills (II and III) are authorized to accepted treated wood waste provided the landfill has specific authorization in their Waste Discharge Requirements. This allowance sunsets December 31, 2020 per section 25150.7 (k). SB 68 was intended to remove the sunset but was vetoed so the sunset date stands other than for treated wood waste from utilities electric, gas, or telephone service per Section 25143.1.5. All other treated wood waste will be required to be handled as hazardous waste and subject to Class I hazardous waste landfills or disposed of at approved landfills outside California and will be required to be shipped on a uniform hazardous waste manifest.

Section 25143.1.5.

(a) For purposes of this section, "wood waste" includes poles, crossarms, pilings, fence posts, lumber, support timbers, flume lumber, and cooling tower lumber.
(b) Any wood waste, previously treated with a preservative, that has been removed from electric, gas, or telephone service, is exempt from the requirements of this chapter if all of the following conditions are met:
(1) The wood waste is not subject to regulation as a hazardous waste under the federal act.
(2) The wood waste is disposed of in a composite-lined portion of a municipal solid waste landfill that meets any requirements imposed by the state policy adopted pursuant to Section 13140 of the Water Code and regulations adopted pursuant to Sections 13172 and 13173 of the Water Code.
(3) The solid waste landfill used for disposal is authorized to accept the wood waste under waste discharge requirements issued by the California regional water quality control board pursuant to Division 7 (commencing with Section 13000) of the Water Code.
(Added by Stats. 1995, Ch. 670, Sec. 1. Effective January 1, 1996.)

Section 25150.7

(a) The Legislature finds and declares that this section is intended to address the unique circumstances associated with the generation and management of treated wood waste. The Legislature further declares that this section does not set a precedent applicable to the management, including disposal, of other hazardous wastes.
(b) For purposes of this section, the following definitions shall apply:
(1) "Treated wood" means wood that has been treated with a chemical preservative for purposes of protecting the wood against attacks from insects, microorganisms, fungi, and other environmental conditions that can lead to decay of the wood, and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Sec. 136 et seq.).
(2) "Wood preserving industry" means business concerns, other than retailers, that manufacture or sell treated wood products in the state.

(c) This section applies only to treated wood waste that, solely due to the presence of a preservative in the wood, is a hazardous waste and to which both of the following requirements apply:
(1) The treated wood waste is not subject to regulation as a hazardous waste under the federal act.
(2) Section 25143.1.5 does not apply to the treated wood waste.
(d) (1) Notwithstanding Sections 25189.5 and 25201, treated wood waste shall be disposed of in either a class I hazardous waste landfill, or in a composite-lined portion of a solid waste landfill unit that meets all requirements applicable to disposal of municipal solid waste in California after October 9, 1993, and that is regulated by waste discharge requirements issued pursuant to Division 7 (commencing with Section 13000) of the Water Code for discharges of designated waste, as defined in Section 13173 of the Water Code, or treated wood waste.
(2) A solid waste landfill that accepts treated wood waste shall comply with all of the following requirements:
(A) Manage the treated wood waste to prevent scavenging.
(B) Ensure that any management of the treated wood waste at the solid waste landfill before disposal, or in lieu of disposal, complies with the applicable requirements of this chapter, except as otherwise provided by regulations adopted pursuant to subdivision (f).
(C) If monitoring at the composite-lined portion of a landfill unit at which treated wood waste has been disposed of indicates a verified release, then treated wood waste shall not be discharged to that landfill unit until corrective action results in cessation of the release.
(e) (1) Each wholesaler and retailer of treated wood and treated wood-like products in this state shall conspicuously post information at or near the point of display or customer selection of treated wood and treated wood-like products used for fencing, decking, retaining walls, landscaping, outdoor structures, and similar uses. The information shall be provided to wholesalers and retailers by the wood preserving industry in 22-point type, or larger, and contain the following message:

Warning—Potential Danger

These products are treated with wood preservatives registered with the United States Environmental Protection Agency and the California Department of Pesticide Regulation and should only be used in compliance with the product labels.
This wood may contain chemicals classified by the State of California as hazardous and should be handled and disposed of with care. Check product label for specific preservative information and Proposition 65 warnings concerning presence of chemicals known to the State of California to cause cancer or birth defects.
Anyone working with treated wood, and anyone removing old treated wood, needs to take precautions to minimize exposure to themselves, children, pets, or wildlife, including:

□Avoid contact with skin. Wear gloves and long sleeved shirts when working with treated wood. Wash exposed areas thoroughly with mild soap and water after working with treated wood.

□Wear a dust mask when machining any wood to reduce the inhalation of wood dusts. Avoid frequent or prolonged inhalation of sawdust from treated wood. Machining operations should be performed outdoors whenever possible to avoid indoor accumulations of airborne sawdust.

□Wear appropriate eye protection to reduce the potential for eye injury from wood particles and flying debris during machining.

□If preservative or sawdust accumulates on clothes, launder before reuse. Wash work clothes separately from other household clothing.

□Promptly clean up and remove all sawdust and scraps and dispose of appropriately.

□Do not use treated wood under circumstances where the preservative may become a component of food or animal feed.

□Only use treated wood that's visibly clean and free from surface residue for patios, decks, or walkways.

□Do not use treated wood where it may come in direct or indirect contact with public drinking water, except for uses involving incidental contact such as docks and bridges.

□Do not use treated wood for mulch.

□Do not burn treated wood. Preserved wood should not be burned in open fires, stoves, or fireplaces.

For further information, go to the Internet Web site http://www.preservedwood.org and download the free Treated Wood Guide mobile application.

In addition to the above listed precautions, treated wood waste shall be managed in compliance with applicable hazardous waste control laws.
(2) On or before July 1, 2005, the wood preserving industry shall, jointly and in consultation with the department, make information available to generators of treated wood waste, including fencing, decking, and landscape contractors, solid waste landfills, and transporters, that describes how to best handle, dispose of, and otherwise manage treated wood waste, through the use either of a toll-free telephone number, Internet Web site, information labeled on the treated wood, information accompanying the sale of the treated wood, or by mailing if the department determines that mailing is feasible and other methods of communication would not be as effective. A treated wood manufacturer or supplier to a wholesaler or retailer shall also provide the information with each shipment of treated wood products to a wholesaler or retailer, and the wood preserving industry shall provide it to fencing, decking, and landscaping contractors, by mail, using the

Contractors' State License Board's available listings, and license application packages. The department may provide guidance to the wood preserving industry, to the extent resources permit.
(f) (1) On or before January 1, 2007, the department, in consultation with the Department of Resources Recycling and Recovery, the State Water Resources Control Board, and the Office of Environmental Health Hazard Assessment, and after consideration of any known health hazards associated with treated wood waste, shall adopt and may subsequently revise as necessary, regulations establishing management standards for treated wood waste as an alternative to the requirements specified in this chapter and the regulations adopted pursuant to this chapter.
(2) The regulations adopted pursuant to this subdivision shall, at a minimum, ensure all of the following:
(A) Treated wood waste is properly stored, treated, transported, tracked, disposed of, and otherwise managed to prevent, to the extent practical, releases of hazardous constituents to the environment, prevent scavenging, and prevent harmful exposure of people, including workers and children, aquatic life, and animals to hazardous chemical constituents of the treated wood waste.
(B) Treated wood waste is not reused, with or without treatment, except for a purpose that is consistent with the approved use of the preservative with which the wood has been treated. For purposes of this subparagraph, "approved uses" means a use approved at the time the treated wood waste is reused.
(C) Treated wood waste is managed in accordance with all applicable laws.
(D) Any size reduction of treated wood waste is conducted in a manner that prevents the uncontrolled release of hazardous constituents to the environment, and that conforms to applicable worker health and safety requirements.
(E) All sawdust and other particles generated during size reduction are captured and managed as treated wood waste.
(F) All employees involved in the acceptance, storage, transport, and other management of treated wood waste are trained in the safe and legal management of treated wood waste, including, but not limited to, procedures for identifying and segregating treated wood waste.
(g) (1) A person managing treated wood waste who is subject to a requirement of this chapter, including a regulation adopted pursuant to this chapter, shall comply with either the alternative standard specified in the regulations adopted pursuant to subdivision (f) or with the requirements of this chapter.
(2) A person who is in compliance with the alternative standard specified in the regulations adopted pursuant to subdivision (f) is deemed to be in compliance with the requirement of this chapter for which the regulation is identified as being an alternative, and the department and any other entity authorized to enforce this chapter shall consider that person to be in compliance with that requirement of this chapter.
(h) On January 1, 2005, all variances granted by the department before January 1, 2005, governing the management of treated wood waste are inoperative and have no further effect.
(i) This section does not limit the authority or responsibility of the department to adopt regulations under any other law.

(j) On or before July 1, 2018, the department shall prepare, post on its Internet Web site, and provide to the appropriate policy committees of the Legislature, a comprehensive report on the compliance with, and implementation of, this section. The report shall include, but not be limited to, all of the following:
(1) Data, and evaluation of that data, on the rates of compliance with this section and injuries associated with handling treated wood waste based on department inspections of treated wood waste generator sites and treated wood waste disposal facilities. To gather data to perform the required evaluation, the department shall do all of the following:
(A) The department shall inspect representative treated wood waste generator sites and treated wood waste disposal facilities, which shall not to be less than 25 percent of each.
(B) The department shall survey and otherwise seek information on how households are currently handling, transporting, and disposing of treated wood waste, including available information from household hazardous waste collection facilities, solid waste transfer facilities, solid waste disposal facility load check programs, and CUPAs.
(C) The department shall, by survey or otherwise, seek data to determine whether sufficient information and convenient collection and disposal options are available to household generators of treated wood waste.
(2) An evaluation of the adequacy of protective measures taken in tracking, handling, and disposing of treated wood waste.
(3) Data regarding the unauthorized disposal of treated wood waste at disposal facilities that have not been approved for that disposal.
(4) Conclusions regarding the handling of treated wood waste.
(5) Recommendations for changes to the handling of treated wood waste to ensure the protection of public health and the environment.
(k) This section shall become inoperative on December 31, 2020, and, as of January 1, 2021, is repealed, unless a later enacted statute, that becomes operative on or before January 1, 2021, deletes or extends the dates on which it becomes inoperative and is repealed.
(Amended by Stats. 2016, Ch. 340, Sec. 16. (SB 839) Effective September 13, 2016. Inoperative December 31, 2020. Repealed as of January 1, 2021, by its own provisions.)

Section 25150.8

If treated wood waste is accepted by a solid waste landfill that manages and disposes of the treated wood waste in accordance with Section 25143.1.5 or paragraphs (1) and (2) of subdivision (d) of Section 25150.7, the treated wood waste, upon acceptance by the solid waste landfill, shall thereafter be deemed to be a solid waste, and not a hazardous waste, for purposes of this chapter and Section 40191 of the Public Resources Code.
(Added by Stats. 2004, Ch. 597, Sec. 2. Effective January 1, 2005.)

Prepared by Larry Sweetser. Sweetser & Associates, Inc.

October 1, 2020

August 26, 2020 Mail-Out #MSC 20-08

TO: All Affected Stakeholders

SUBJECT: PUBLIC WORKSHOP ABOUT REPORTING REQUIREMENTS FOR LARGE ENTITIES AND FLEETS UNDER THE ADVANCED CLEAN TRUCK REGULATION

The California Air Resources Board (CARB) invites you to participate in a workshop about the fleet reporting requirements of the Advanced Clean Trucks (ACT) regulation. The meeting will focus on ways to make it easier for large entities to meet the one time requirement about their vehicles with a gross vehicle weight rating greater than 8500 lbs. The mandatory reporting requirement applies to entities that operate a facility in California and meet any of the following criteria:

- Has more than $50 million in revenues from all related subsidiaries, subdivisions, or branches, and has at least one vehicle; or
- Owns 50 or more vehicles; or
- Dispatches 50 or more vehicles into or throughout California; or
- Is a government agency (federal, state, local, and municipalities).

The workshop will be a GoToWebinar at:

DATE: September 22, 2020
TIME: 9:00 a.m. – 1:00 p.m. (PST)
LOCATION: https://register.gotowebinar.com/register/2790509243454743564

The purpose of the workshop is to discuss the reporting requirements and what tools and resources are needed to help fleet managers and other respondents to collect and report their information to meet the one-time April 2021 reporting deadline. The workshop will include the following topics:

- Large Entity Reporting Requirements
- Draft Guide to Simplify Reporting
- Process to Enter and Save Fleet Information
- Process to Upload Data Online
- Outreach and Education

This notice and other meeting materials will be posted in advance of the workshop at https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets.

Background

Achieving California's long-term air quality, climate, and public health goals will require a transition from the conventional combustion technologies to zero-emission everywhere feasible, and near-zero-emission powered by low-carbon renewable fuels everywhere else. On June 25, 2020, the Board approved the Advanced Clean Truck Regulation. Promoting the development and use of zero-emission trucks will contribute to the goals set in the Sustainable Freight Action Plan and will help achieve emission reductions as outlined in the State Implementation Plan, Senate Bill 350 (SB 350) (de León, Chapter 547, Statutes of 2015), Assembly Bill 32 (SB 32) (Nuñez, Chapter 488, Statutes of 2006), and SB 32 (Pavley, Chapter 249, Statutes of 2016). This effort is part of a broader strategy to increase clean, affordable transportation options such as zero-emission technologies, innovative methods to improve goods movement, and efficiency of transportation systems in California.

Contacts

For questions regarding this public workshop, please contact Ronnie Cabanayan, Air Resources Engineer, by email at ronnie.cabanayan@arb.ca.gov or Garrett Schnabel, Air Pollution Specialist, by email at garrett.schnabel@arb.ca.gov or Gerald Berumen, Manager, by email at gerald.berumen@arb.ca.gov.

Special Accommodation

Consistent with California Government Code Section 7296.2, special accommodation or language assistance may be provided via the following:

- An interpreter to be available at the meeting;
- Documents made available in an alternate format or another language; and
- A disability-related reasonable accommodation.

To request special accommodations, please contact Beverly Bueno at (916) 323-7053 or by email at EEOP@arb.ca.gov. For language assistance, please contact the Diesel Hotline at 1-866-6DIESEL (1-866-634-3735) as soon as possible, but no later than ten business days before the scheduled meeting. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Consecuente con la sección 7296.2 del Código de Gobierno de California, una acomodación especial o ayuda en otro idioma pueden ser suministradas para cualquiera de los siguientes:

- Un intérprete que esté disponible en la junta;
- Documentos disponibles en un formato alternativo u otro idioma; y
- Una adaptación razonable relacionada con la discapacidad.

Para solicitar acomodaciones especiales, por favor llame a Beverly Bueno al (916) 323- 7053 o por email a EEOP@arb.ca.gov. Para asistencia en su idioma, por favor llame a la Línea de Diésel al 1-866-6DIESEL (1-866-634-3735) lo más pronto posible, pero no menos de diez días hábiles antes

de la reunión programada. TTY/TDD/Personas que necesiten este servicio pueden marcar al 711 para el Servicio de Retransmisión de Mensajes de California.

Sincerely,

/s/

Jack Kitowski, Chief
Mobile Source Control Division

cc: Gerald Berumen, Manager
On-Road Compliance Assistance Section
Mobile Source Control Division

Ronnie Cabanayan
Air Resources Engineer
Mobile Source Control Division

Garrett Schnabel
Air Pollution Specialist
Mobile Source Control Division

CALIFORNIA
AIR RESOURCES BOARD

One-Time Fleet Reporting

Workshop – September 22, 2020

Overview

- Background
- Large entity one-time reporting requirements
- Draft guide to simplify reporting
- Process to save and upload responses
- Outreach and education

One-Time Reporting Requirement

- Larger entities that operate a facility in California
  - Public, private and other organizations with at least one vehicle
- Vehicles with a gross vehicle weight rating >8,500 lbs
  - Excludes cars and light-duty SUVs and pickup trucks
- Affected vehicle owners must report no later than April 1, 2021

One-Time Reporting Requirement (Cont.)

- Records must be kept until December 31, 2024
- Affected vehicles owners who do not report by the deadline will be subject to enforcement action and penalty
- Does not change any other reporting requirements

Who Must Report

- Organizations with more than $50 million in revenues
  - from all related subsidiaries, subdivisions, or branches, and has at least one vehicle with a gross vehicle weight rating (GVWR) greater than 8,500 lbs.; or
- Owns 50 or more vehicles (with GVWR greater than 8,500 lbs.); or
- Dispatches 50 or more vehicles (with GVWR greater than 8,500 lbs.) into or throughout California; or
- Government agency (federal, state, local, and municipalities) and has at least one vehicle with a GVWR greater than 8,500 lbs.

Reporting Excludes the Following

- K-12 schools, school districts, primarily school bus fleets
- Transit vehicles subject to the Innovative Clean Transit regulation
- Military tactical vehicles as described in 13 CCR 1905 and military tactical facilities
- Vehicles awaiting sale; or
- Emergency vehicles per California Vehicle Code Section 165.

Preliminary Draft Reporting Guide

- Describe reporting require reporting requirements
- Additional guidance on select questions
- Three primary survey sections
  - General entity information
  - Home-base location
  - Vehicle operation
- Companion to spreadsheet questionnaire

Process to Save and Upload Survey Responses

- Download Excel spreadsheet from CARB website
  - Respond to survey questions
  - Built-in menu choices and basic validation
  - Save on own your own disk drive until completed
  - Export completed survey to a data file
- Upload completed data file on CARB website
- Seeking volunteers to beta test

Outreach and Education Overview

- Partner with associations
  - Provide content for news letters and member bulletins
  - Coordinate reporting information
- Direct physical and electronic mailers to affected organizations
- Online guide and factsheets
- Press releases
- Training classes (live/recorded)
- Hotline assistance

Next Steps on One-time Reporting

- Finalize the one-time reporting guide
- Update the spreadsheet reporting form
- Beta test upload process
- Prepare outreach materials
- Make available for use before the end of 2020

Proposed Advanced Clean Fleets Regulation

- Zero-Emission truck and bus fleet by 2045 everywhere feasible
  - Earlier transition for certain market segments
  - Initial focus on larger fleets and large entities that hire them

Proposed Advanced Clean Fleets Regulation (Cont.)

- Scope includes wide range of stakeholders
  - Owners of vehicles with a GVWR >8,500 lb (or Class 2b and up)
  - Other entities that hire truck and bus fleets
  - Government, private business, and others
- Build on other supporting zero-emission vehicle policies

Principles for Developing ZE Fleet Rules

- Maximize ZEVs deployed to meet air quality and GHG goals
- Focused action in disadvantaged communities
- Simple and streamlined compliance and enforcement
- Match vehicle capabilities with fleet operational needs
- Expand infrastructure access to enable new markets
- Include smaller vehicles where appropriate
- Ensure level playing field

Rulemaking Overview

- Initial focus on truck types and use cases that are most suitable
- Target largest fleets and business for early deployment
  - Own and hired vehicles
- Enable full transition with secondary market
- Align with ACT manufacturer ZEV sales requirements

Rulemaking Overview (Cont.)

- Maximize ZE technologies where feasible
  - Encourage NZEVs and other innovative technologies
- Consider appropriate framework for different fleets or situations
- One rulemaking phased in 2023 to 2045

One-time Fleet Reporting Contacts

- Gerald Berumen, Manager gerald.Berumen@arb.ca.gov
- Garrett Schnabel, Staff garrett.schnabel@arb.ca.gov
- Ronnie Cabanayan, Staff ronnie.cabanayan@arb.ca.gov

Web Page:

https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets

List Serve:

https://public.govdelivery.com/accounts/CARB/subscriber/new?topic_id=zevfleet

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

Section 2200. Annual Fee Schedules.

Each person for whom waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code shall submit, to the state board, an annual fee in accordance with the following schedules. The fee shall be submitted for each waste discharge requirement order issued to that person.[1]

(a) The annual fees for persons issued waste discharge requirements (WDRs), except as provided in subdivisions (a)(3), (b), and (c), shall be based on the discharge's threat to water quality (TTWQ) and complexity (CPLX) rating according to the following fee schedule, plus applicable surcharge(s).

[1] Federal facilities will generally not be invoiced for the portion of the annual fee that is attributable to the state board's ambient water monitoring programs. See *Massachusetts v. United States* (1978) 435 U.S. 444.

Threat to Water Quality (TTWQ)	Complexity (CPLX)	Discharge to Land or Surface Waters[2]	Land Disposal[3] – Not Paying a Tipping Fee[4]	Land Disposal[3] – Paying a Tipping Fee[5]
1	A	~~$137,139~~149,482	$70,781[6]	$59,252[6]
1	B	~~$86,613~~94,408	$57,168	$47,856
1	C	~~$46,735~~50,941	$36,751	$30,766
2	A	~~$31,217~~34,027	$30,625	$25,638
2	B	~~$18,767~~20,456	$24,502	$20,510
2	C	~~$14,073~~15,340	$18,376	$15,383
3	A	~~$11,091~~12,089	$12,250	$10,256
3	B	~~$5,907~~6,439	$9,188	$7,690
3	C	~~$2,625~~2,861	$4,082	$3,419

[2] For this table, discharges to land or surface waters are those discharges of waste to land or surface waters not covered by NPDES permits that are regulated pursuant to Water Code Section 13263 that do not implement the requirements of Title 27 of the California Code of Regulations (CCR). Examples include, but are not limited to, wastewater treatment plants, erosion control projects, and septic tank systems. It does not include discharge of dredge or fill material, discharges from agricultural lands, including irrigated lands, or discharge from animal feeding operations. Dischargers covered by a WDR for municipal and domestic discharges with permitted flows of less than 50,000 gallons per day in categories 2-B, 2-C, 3-B and 3-C will receive a 50 percent fee discount. The design flow shall be used where no permitted flow is present. Municipal and domestic discharges receiving the discount are defined as discharges from facilities that treat domestic wastewater or a mixture of wastewater that is predominately domestic wastewater. Domestic wastewater consists of wastes from bathroom toilets, showers, and sinks from residential kitchens and residential clothes washing. It does not include discharges from food preparation and dish washing in restaurants or from commercial laundromats. Dischargers covered by a Landscape Irrigation General Permit issued by the state board will be assessed a fee associated with TTWQ/CPLX rating of 3B.

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

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

[5] For this table, Paying a Tipping Fee are those land disposal dischargers subject to PRC § 48000 et seq.

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

Oil and gas produced water storage and disposal facilities regulated by waste discharge requirements are subject to a surcharge per barrels of waste water discharged in the prior 12 months according to the following schedule:

TTWQ & CPLX Rating	No Barrels	1 to 999,999 Barrels	1,000,000 or more Barrels
1A	$600	$1,000	$50,000
1B	$600	$1,000	$50,000
1C	$600	$1,000	$50,000
2A	$600	$1,000	$40,000
2B	$600	$1,000	$30,000
2C	$600	$1,000	$10,000
3A	$600	$1,000	$4,000
3B	$600	$1,000	$2,000
3C	$600	$600	$600

(1) Threat to water quality (TTWQ)[7] and complexity (CPLX) of the discharge is assigned by the regional board in accordance with the following definitions:

THREAT TO WATER QUALITY

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

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

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

COMPLEXITY

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

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

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

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

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

Population Served[8]	**Threat and Complexity Designation**
Less than 50,000	3C
50,000 or more	2C

[8] Assumes 2.5 persons per equivalent dwelling unit (EDU).

(3) The fees for discharges of dredge and fill material shall be as follows.[9]

Standard Fee:[10]

Discharge Category	Application Fee[11]	Project Fee	Annual Fee[12]
(A) Fill and Excavation[13] Discharges Discharge area expressed in acres rounded to two decimal places (0.01 acre)	~~$1,949~~2,113	Impact area in acres x ~~$17,372~~18,831, minus application fee, up to a maximum of ~~$169,099~~183,303. If this amount is $0 or less, then no project fee is required. ~~(if balance equals less than the application fee, no project fee is required).~~	~~$1,638~~1,776 for first five fiscal years following the effective date of the order, then $282 beginning with the sixth fiscal year until the Notice of Completion is issued to discharger.

[9] Fees shall be based on the sum of temporary and permanent impact amounts to be authorized by the order. Impacts include both the excavation and fill area and the dredging area. If water quality certification is issued in conjunction with dredge or fill WDRs or issued for a discharge regulated under preexisting WDRs for the same project, the project will be assessed a single fee derived from this dredge and fill fee schedule. Discharges requiring certification and regulated under a federal permit or license other than a US Army Corp of Engineers Clean Water Act Section 404 permit or a Federal Energy Regulatory Commission License shall be assessed a fee determined from Section 2200(a).

[10] Fees shall be based on the sum of project impacts. Projects that include both category (A) and category (B) discharges shall be subject to the category (A) application and project fees. A single annual fee shall be assessed based on the higher of the applicable annual fee categories.

[11] Dischargers shall pay a one-time application fee and the project fee, if a project fee is required, for each project at the time that the application or report of waste discharge is submitted. Application and project fees shall be determined according to the fee schedule in effect on the date of application submittal.

[12] Consistent with Section 2200.2, the sum of the application fee and the project fee shall serve as the first annual fee. If the submittal of this first annual fee does not coincide with the current fiscal year billing cycle, then the next, and only the next, fiscal year billing shall be adjusted to account for the payment of the application fee. The annual fee for category (B) dredging discharges will be calculated using the annual dredge volume authorized in the applicable Order. Annual fee invoices are based on the fee schedule in effect for the fiscal year in which the invoice is issued.

[13] "Excavation" refers to removing sediment or soil in shallow waters or under no-flow conditions, typically for purposes other than navigation. Examples include, but are not limited to, trenching for utility lines; other earthwork preliminary to discharge; removing sediment to increase channel capacity; and other flood control and drainage maintenance activities (e.g., debris removal, vegetation management and removal, detention basin maintenance and erosion control of slopes along open channels and other drainage facilities).

Discharge Category	Application Fee[11]	Project Fee	Annual Fee[12]
(B) Dredging[14] Discharges (except ~~Sand Mining~~Category C activities-see (C) below) Dredge volume expressed in cubic yards.	~~$1,949~~2,113	N/A	Annual dredge volume in cubic yards x $~~0.426~~0.462, up to a project maximum of ~~$169,099~~183,303. The minimum annual fee is ~~$1,949~~2,113.

Special/Flat Fee:[15]

Discharge Category	Application Fee	Annual Fee
(C) Sand Mining, In-Stream Gravel Mining and Beach Nourishment ~~Dredging~~ Discharges Aggregate extraction in ~~marine~~surface waters where source material is free of pollutants and the dredging operation will not violate any basin plan provisions and beach nourishment projects.	~~$1,949~~2,113	~~$975~~705
(D) Ecological Restoration and Enhancement Projects ~~Projects undertaken for the primary purpose of restoring or enhancing the beneficial uses of water. This schedule does not apply to projects required under a regulatory mandate or to projects that are not primarily intended for ecological restoration or enhancement, e.g., land development. This category does not include mitigation banking or in-lieu fee programs, or projects implemented in response to an enforcement action.~~The project meets the definition of an "Ecological Restoration and Enhancement Project" set forth in the State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State, adopted by the State Water Board on April 2, 2019. [16]	~~$520~~562	~~$260~~282

[14] "Dredging" refers to removing sediment or aquatic vegetation, typically in deeper water for navigation purposes. For fee purposes, this fee category includes aggregate extraction within stream channels, where the substrate is composed of coarse sediment (e.g., gravel) and is replenished by normal winter flows (e.g., point bars).

[15] To qualify for a special/flat fee category, the whole of a project must meet the fee category description (i.e., all project discharges are limited to those defined by the fee category).

[16] Ecological Restoration and Enhancement Project means the project is voluntarily undertaken for the purpose of assisting or controlling the recovery of an aquatic ecosystem that has been degraded, damaged or destroyed to restore some measure of its natural condition and to enhance the beneficial uses, including potential beneficial uses of water. Such projects are undertaken:

(E) Low Impact Discharges Projects may be classified as low impact discharges if the project meets all of the following criteria: 1. The discharge size is less than all of the following: (a) for fill, 0.1 acre, and 300 linear feet, and (b) for dredging, 25 cubic yards. 2. The discharger demonstrates that: (a) all practicable measures will be taken to avoid impacts; (b) where unavoidable temporary impacts take place, waters and vegetation will be restored to pre-project conditions as quickly as practicable; and (c) where unavoidable permanent impacts take place, there will be no net loss of wetland, riparian area, or headwater functions, including onsite habitat, habitat connectivity, floodwater retention, and pollutant removal. 3. The discharge will not do any of the following: (a) directly or indirectly destabilize a bed of a receiving water; (b) contribute to significant cumulative effects; (c) cause pollution, contamination, or nuisance; (d) adversely affect candidate, threatened, or endangered species; (e) degrade water quality or beneficial uses; (f) be toxic; or (g) include “hazardous” or “designated” material.	$~~1,949~~2,113	$~~260~~282
(F) Emergency Projects Authorized by a Water Board General Order	$~~1,949~~2,113	$~~260~~282

1) in accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the real property interest owner or the entity conducting the habitat restoration or enhancement work and:

a. a federal or state resource agency, including, but not limited to, the U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Farm Service Agency, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Forest Service, U.S. Bureau of Land Management, California Department of Fish and Wildlife, California Wildlife Conservation Board, California Coastal Conservancy or the Delta Conservancy;
b. a local agency with the primary function of managing land or water for wetland habitat purposes; or
c. a non-governmental conservation organization; or

2) by a state or federal agency that is statutorily tasked with natural resource management.

These projects do not include the conversion of a stream or natural wetland to uplands or stream channelization. It is recognized that Ecological Restoration and Enhancement Projects may require ongoing maintenance or management to maximize fish, wildlife, habitat, or other ecological benefits, or filling gullied stream channels and similar rehabilitative activities to re-establish stream and meadow hydrology. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during rehabilitation activities are not considered a conversion to another aquatic habitat type. These projects also do not include actions required under a Water Board Order for mitigation, actions to service required mitigation, or actions undertaken for the primary purpose of land development.

(G) Amended Orders[~~16~~17] Amendments of WDRs or water quality certifications previously issued. (1) All category (D) Ecological Restoration and Enhancement Projects, regardless of amendment type. (2) Administrative amendments including, but not limited to, ownership changes, typographic edits, or time extensions that do not result in a temporal loss of resource function. Amendments in this category require no technical analysis or additional compensatory mitigation. (3) Amendment results in changes(s) in impact character, location, or volume of the discharge; or a time extension that results in a temporal loss of resource function, according to the following criteria: • Amendment increases the active certification's impact quantity by less than 50 percent, and • Amendment does not require a change to the mitigated aquatic resource type. (4) Amendment requires a supplemental CEQA analysis, or Amendment results in a change(s) in impact character, location, or volume of the discharge, or a time extension that results in a temporal loss of resource function, according to the following criteria: • Amendment increases the active certification's impact quantity by more than 50 percent, or • Amendment requires a change to the mitigated aquatic resource type.	(1) No fee required (2) No fee required (3) Additional standard fee assessed per increased amount of discharge(s). The minimum fee is $~~1,949~~2,113. (4) New standard fee assessed per new project discharge total. The minimum fee is $~~1,949~~2,113.	Annual fee applicable per discharge category
(H) Wildfire Mitigation by Electrical Corporations, Electrical Utilities, and Electrical Cooperatives Dredge or fill activities conducted by electrical corporations, electrical utilities, and electrical cooperatives pursuant to a wildfire mitigation plan prepared in accordance with Public Utilities Code, section 8386(b) or section 8287(b)(1). This annual fee covers all dredge or fill activities conducted by the electrical corporations, electrical utilities, and electrical cooperatives pursuant to a wildfire mitigation plan, and is in lieu of the project-specific dredge or fill fees in section(a)(3)(A)-(G) for dredge or fill activities conducted pursuant to a wildfire mitigation plan.	N/A	$43.00 per mile of overhead electrical lines identified as high risk or high threat in the wildfire mitigation plan.

[~~16~~17] Dischargers that have met the project fee cap will be assessed the minimum fee for each amendment of previously-issued WDR or water quality certification.

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

(1)(A) Each public entity that owns and/or operates a storm water conveyance system, or pare of such a system, that is subject to a NPDES permit for storm water dischargers from a municipal separate storm sewer system (MS4) shall pay an annual fee according to the following schedule. The fee shall be based on the population of the public entity according to the most recently published United States Census. Public entities other than cities or counties (Non-Traditional Small MS4s[17][18]), shall pay an annual fee according to the following schedule, based on the average daily population[18][19] using the entities' facilities, unless otherwise provided in the schedule. Flood control districts or other special districts named as co-permittees to MS4 permits and school districts, serving students between kindergarten and fourteenth grade, shall not pay an annual fee if the city or county within whose jurisdiction the district lies oversees the district's storm water compliance and pays an annual fee.

ANNUAL FEE SCHEDULE FOR AREAWIDE MUNICIPAL STORM WATER SEWER SYSTEM PERMITS AND CO-PERMITEES

Population	**Fee**
~~Population e~~Equal to or greater than 250,000	~~$56,921~~60,279
~~Population between~~ 200,000 ~~and~~to 249,999	~~$49,805~~52,743
~~Population between~~ 150,000 ~~and~~to 199,999	~~$42,974~~45,509
~~Population between~~ 100,000 ~~and~~to 149,999	~~$35,577~~37,676
~~Population between~~ 75,000 ~~and~~to 99,999	~~$28,461~~30,140
~~Population between~~ 50,000 ~~and~~to 74,999	~~$21,344~~22,603
~~Population between~~ 25,000 ~~and~~to 49,999	~~$14,230~~15,070
~~Population between~~ 10,000 ~~and~~to 24,999	~~$8,539~~9,043
~~Population between~~ 1,000 ~~and~~to 9,999	~~$5,692~~6,028
Less than 1,000 population	~~$2,847~~3,015
Statewide Permit Holders	~~$227,682~~241,115
High Speed Rail Authority	~~$133,500~~141,377

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

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[17][18] Non-Traditional Small MS4s are facilities that have systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. (40 C.F.R. § 122.26(b)(16)(iii)).

[18][19] Total daily population must include resident and commuter populations. For public entities other than cities or counties, total daily population must include resident population and non-residents regularly employed in the areas served by the public entity.

(2) Any entity or entities submitting a watershed improvement plan to the regional board for review pursuant to Section 16102 of the Water Code shall reimburse the regional board for its costs[~~19~~20] to review and oversee the implementation of the plan, which shall be calculated using a rate of $150.00 per hour.

(3) Facilities that discharge storm water associated with industrial activities that are regulated by a state board or regional board general NPDES storm water permit shall pay an annual fee of $~~1,400~~1,483. An amount equal to the fee prescribed shall be submitted with the discharger's Notice of Intent (NOI) to be regulated under a general NPDES permit and will serve as the first annual fee. For the purposes of this section, an NOI is considered to be a report of waste discharge.

(4)(A) Storm water discharges associated with construction activities that are regulated by a general NPDES storm water permit other than those covered under (b)(5), including those issued by a regional board, shall pay an annual fee of $~~400~~424 plus $~~42~~44 per acre (rounded to the nearest whole acre and dollar amount), to a maximum fee of $~~6,700~~7,024, based on the total acreage to be disturbed during the life of the project as listed on the NOI. An amount equal to the fee prescribed shall be submitted with the discharger's NOI to be regulated under a general NPDES permit and will serve as the first annual fee. For the purposes of this section, an NOI is considered to be a report of waste discharge.

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

[~~19~~20] These costs include labor, state board and regional board administrative costs, and overhead costs.

(5) Discharges associated with mosquito and vector control activities[~~20~~21] that are regulated by an individual or general NPDES permit adopted specifically for these purposes, including those issued by a regional board, shall pay a fee of $250. Dischargers filing an application for a mosquito and vector control permit shall pay a fee of $250. The fee shall be paid each time an application for initial certification or renewal of certification is submitted. Mosquito and vector control fees are not subject to ambient water monitoring surcharges.

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

Dischargers with a Single System

Service Connections	Application Fee	Annual Fee
15 – 999	$~~125~~138	No Annual Fee
1,000 – 9,999	$~~624~~691	$~~624~~691
10,000+	$~~2,572~~2,850	$~~2,572~~2,850
Transmission System or Water Wholesaler	$~~2,572~~2,850	$~~2,572~~2,850

[~~20~~21] A mosquito and vector control activity involves discharge of pesticides into a designated area for the maintenance and control of mosquito larva for the protection of public health from the outbreak of lethal diseases. A mosquito and vector control agency discharges pesticides into surface waters for the control of mosquito larva.

Dischargers with Multiple Systems

Total Number of Service Connections	Application Fee	Annual Fee[2122]
15 – 999	$~~125~~138	No Annual Fee
1,000 – 9,999	$~~624~~691	$~~624~~691 per Primary System fee plus $~~125~~138 per Secondary System
10,000+	$~~2,572~~2,850	$~~2,572~~2,850 per Primary System fee plus $~~125~~138 per Secondary System
Transmission System or Water Wholesaler System	$~~2,572~~2,850	$~~2,572~~2,850 per Primary System fee plus $~~125~~138 per Secondary System

(7) Seawater desalination facilities that have submitted a request for a determination of consistency with California Water Code section 13142.5(b) are subject to an annual fee according to the following fee schedule until a determination is made, with a maximum annual fee of $~~200,000~~221,600:

Fee Basis[2223]	Base Fee	Proposed Intake Volume Multiplier
Subsurface Only	$~~60,000~~66,480	$~~1,007~~1,116 per mgd
Surface, Combined Surface and Subsurface, or Alternative Intake Technology	$~~120,000~~132,960	$~~1,007~~1,116 per mgd

(8) Discharges from public wastewater treatment facilities that are regulated by a general NPDES permit adopted specifically for this purpose and all other NPDES permitted discharges, except as provided in (b)(9), (b)(10), and (c), shall pay a fee according to the following formula:

Fee equals $~~2,572~~2,850 plus ~~4,548~~5,039 multiplied by the permitted flow, in mgd, with a maximum fee of $~~643,081~~712,534 plus any applicable surcharge(s).

[2122] All Transmission Systems and Water Wholesaler Systems are Primary Systems. If the Discharger does not have a Transmission System or a Water Wholesaler System, the Discharger's individual water system with the highest number of service connections will be designated as the Primary System. All systems that are not Primary Systems are designated as Secondary Systems.

[2223] Fee shall be based on the intake type as defined in the Water Quality Control Plan for Ocean Waters of California Chapter III.M.2.d.(1)(a).

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

NPDES permitted industrial discharges[~~23~~24] with a threat/complexity[~~24~~25] rating of 1A, 1B, or 1C are subject to a surcharge as follows:

Threat/Complexity Rating 1A - $15,000
Threat/Complexity Rating 1B - $10,000
Threat/Complexity Rating 1C - $5,000

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

(9)(A) Flow for wet weather municipal facilities[~~25~~26] will be based on the previous five years' actual monthly average flow,[~~26~~27], as of the date the permit is issued.

(B) Notwithstanding (9)(A), the minimum annual fee for wet weather municipal facilities shall be $20,000.

[~~23~~24] NPDES permitted industrial discharger(s) means those industries identified in the Standard Industrial Classification Manual, Bureau of Budget, 1967, as amended and supplemented, under the category "Division D-Manufacturing" and such other classes of significant waste producers as, by regulation, the U.S. EPA Administrator deems appropriate. (33 USC Sec. 1362).

[~~24~~25] Threat/complexity categories are listed under (a)(1) of this document.

[~~25~~26] Wet weather municipal facilities are intermittently operated facilities that are designated specifically to handle flows during wet weather conditions.

[~~26~~27] The actual monthly average flow is defined as the average of the flows during each of the months that the discharge occurred during the previous five-year period.

(10) All other general NPDES permits and de minimis discharges[27][28] that are regulated by an individual or general NPDES permit, including those issued by a regional board, shall pay a fee as follows:

Category 1 – Discharges that require treatment systems to meet priority toxic pollutant limits and that could impair beneficial uses if limits are violated: $14,815<u>16,415</u>

Category 2 – Discharges that require treatment systems to meet non-priority pollutant limits, but are not expected to impair beneficial uses if limits are violated. Examples of non-priority pollutants include, but are not limited to, nutrients, inorganic compounds, pH, and temperature: $8,953<u>9,920</u>

Category 3 – Discharges that require minimal or no treatment systems to meet limits and pose no significant threat to water quality: $2,572<u>2,850</u>

[27][28] De minimis discharge activities include, but are not limited to, the following: aquaculture activities (as defined in Chapter 40, Section 122.25(b) of the Code of Federal Regulations) defined as managed water areas that use discharges of pollutants into that designated area for maintenance or reproduction of harvestable freshwater, estuarine, or marine plants or animals including fish hatcheries; geothermal facilities that utilize, extract, or produce energy from geothermal fluids for heating, generating power, or other beneficial uses, and discharge geothermal fluids to surface waters; aquatic pesticide applications; evaporative condensate; swimming and landscape pool drainage; discharges from fire hydrant testing or flushing; discharges resulting from construction dewatering; discharges associated with supply well installation, development, test pumping, and purging; discharges resulting from the maintenance of uncontaminated water supply wells, pipelines, tanks, etc.; discharges resulting from hydrostatic testing of water supply vessels, pipelines, tanks, etc.; discharges resulting from the disinfection of water supply pipelines, tanks, reservoirs, etc.; discharges from water supply systems resulting from system failures, pressure releases, etc.; discharges of non-contact cooling water, not including steam/electric power plants; discharges resulting from diverted stream flows; water treatment plant discharges; and other similar types of wastes that have low pollutant concentrations and are not likely to cause or have a reasonable potential to cause or contribute to an adverse impact on the beneficial uses of receiving waters yet technically must be regulated under an NPDES permit.

(c) The annual fees for waste discharge requirements and waivers of waste discharge requirements for discharges from confined animal facilities shall be based on the following schedules. If a facility contains animals that fit multiple fee categories, the fee will be based on the number of animals in the category that results in the highest fee.

Dairies – Mature Dairy Cattle or Water Buffalo

Number of Animals	Fee
3,000 or more	~~$15,406~~15,699
1,500 to 2,999	~~$9,628~~9,811
700 to 1,499	~~$4,621~~4,709
300 to 699	~~$2,311~~2,355
150 to 299	~~$1,156~~1,178
50 to 149	~~$578~~589
0 to 49	$0

Feedlots – Cattle or Cow/Calf Pairs

Number of Animals	Fee
100,000 or more	~~$11,556~~11,776
10,000 to 99,999	~~$5,777~~5,887
5,000 to 9,999	~~$3,080~~3,139
1,000 to 4,999	~~$1,540~~1,569
100 to 999	~~$771~~786
0 to 99	$0

Feedlots – Calves

Number of Animals	Fee
10,000 or more	~~$5,777~~5,887
5,000 to 9,999	~~$3,080~~3,189
1,000 to 4,999	~~$1,540~~1,569
300 to 999	~~$771~~786
0 to 299	$0

Feedlots – Heifers

Number of Animals	Fee
10,000 or more	~~$11,556~~11,776
5,000 to 9,999	~~$5,777~~5,887
1,000 to 4,999	~~$3,080~~3,139
300 to 999	~~$1,540~~1,569
137 to 299	~~$771~~786
0 to 136	$0

Feedlots – Auction Yards

Number of Animals	Fee
1,000 or more	~~$3,080~~3,139
300 to 999	~~$1,540~~1,569
100 to 299	~~$771~~786
0 to 99	$0

Dairies – Goat Dairies

Number of Animals	Fee
1,000 or more	~~$1,540~~1,569
550 to 999	~~$771~~786
0 to 549	$0

Hogs – Swine (>~~=~~ 55 Pounds)

Number of Animals	Fee
5,000 or more	~~$5,777~~5,887
2,500 to 4,999	~~$3,080~~3,139
750 to 2,499	~~$1,540~~1,569
150 to 749	~~$771~~786
0 to 149	$0

Hogs – Swine (< 55 Pounds)

Number of Animals	Fee
20,000 or more	~~$5,777~~5,887
10,000 to 19,999	~~$3,080~~3,139
3,000 to 9,999	~~$1,540~~1,569
300 to 2,999	~~$771~~786
0 to 299	$0

Horses

Number of Animals	Fee
500 or more	~~$3,080~~3,139
150 to 499	~~$1,540~~1,569
75 to 149	~~$771~~786
0 to 74	$0

Sheep or Lambs

Number of Animals	Fee
10,000 or more	~~$3,080~~3,139
3,000 to 9,999	~~$1,540~~1,569
550 to 2,999	~~$771~~786
0 to 549	$0

Poultry

Number of Animal Equivalent Units (AEU)	Discharges with Low Threat to Water Quality[2829]	All Other Discharges
2000+	~~$2,697~~2,748	~~$7,702~~7,848
700 - 1,999	~~$1,926~~1,963	~~$3,853~~3,926
300 - 699	~~$1,348~~1,374	~~$2,890~~2,945
10 - 299	~~$771~~786	~~$1,540~~1,569
2 - 9	~~$386~~393	~~$771~~786
0 - 1	$0	$0

Animal Count to Animal Equivalent Unit (AEU) Conversion Matrix

Animal Type	AEU Multiplier	Number of Animals per AEU[2930]
Turkey	0.0150000	67
Duck	0.0080000	125
Chicken – Broiler	0.0050000	200
Chicken – Layer	0.0040000	250
Guinea Fowl	0.0035000	286
Pheasant	0.0027500	364
Pullet	0.0024000	417
Squab	0.0015000	667
Chukar	0.0012500	800
Quail (Japanese)	0.0003750	2,667
Hatchery Chick (day old)	0.0000938	10,661

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

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

[2829] These fees apply to discharges from poultry operations that are identified as posing a “low threat to water quality” in the applicable waste discharge requirements or waiver of waste discharge requirements.

[2930] Rounded to the nearest whole number

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

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

(5) Facilities covered under a waste discharge requirement or waiver of waste discharge requirement that do not pay annual fees shall pay an application fee for initial coverage and renewals of coverage of $200. The fee shall be paid each time an application for coverage or report of waste discharge is submitted.

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

Section 2200.6. Annual Agricultural and Irrigated Lands Fee Schedule.

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

(1) If a discharger is a member of a group that has been approved by the Regional Board or Regional Board Executive Officer to manage fee collection and payment, then the annual fee shall be based on agricultural activity according to the following fee schedule:

Agricultural Activity Tier for Group Enrollment	Per Acre Fee
Tier A – All agricultural activity except those identified in Tier B.	~~$1.08~~1.12
Tier B – Discharger or group of dischargers whose agricultural activities are managed wetlands, irrigated pastures with no external nitrogen input, those belonging to the California Rice Commission third party group, or are determined by the Regional Water Board or the Executive Officer to be exempt from the precedential requirement to develop an Irrigation and Nitrogen Management Plan.[2]	~~$0.87~~0.90

(2) If a discharger is not a member of a group that has been approved by the Regional Board or Regional Board Executive Officer to manage fee collection and payment, then the annual fee shall be based on agricultural activity according to the following fee schedule:

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

[2] Per State Water Board Order No. WQ 2018-0002, In the Matter of Review of Waste Discharge Requirements General Order No. R5-2012-0116 for Growers Within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group.

Agricultural Activity Tier for Individual Enrollment	Per Acre Fee
Tier A – All agricultural activity except those identified in Tier B.	$~~27.00~~28.00 per acre up to 300 acres plus $~~13.50~~14.00 per acre over 300 acres with a minimum fee of $550
Tier B – Discharger or group of dischargers whose agricultural activities are managed wetlands, irrigated pastures with no external nitrogen input or are determined by the Regional Water Board or the Executive Officer to be exempt from the precedential requirement to develop an Irrigation and Nitrogen Management Plan.[2]	$~~21.60~~22.40 per acre up to 300 acres plus $~~10.80~~11.20 per acre over 300 acres with a minimum fee of $550

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

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

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

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CalEPA

CERS Knowledge Base, Help Articles and FAQs

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

Business Portal Help: How to Complete an Aboveground Petroleum Storage Act (APSA) Submittal in CERS

(https://cers.calepa.ca.gov/wp-content/uploads/sites/11/2020/08/CERS-Business-Portal-Help-Preparing-an-APSA-Submittal-in-CERS.pdf)

NEW Hazardous Materials Business Plan (HMBP) Exemption Application Form

CalEPA, Cal OES and the CUPA Forum Board have collaborated to develop a new HMBP Exemption Application Form for temporary emergency generator deployment during Public Safety Power Shutoff (PSPS) events. The Unified Program Administration and Advisory Group (UPAAG) formally adopted the new form on July 22, 2020.

The California Health & Safety Code (HSC), Chapter 6.95, Section 25507(d) provides Unified Program Agencies (UPA) the ability to exempt a handler from HMBP

requirements. This form was developed to ensure state-wide consistency and to assist with this exemption process during PSPS events.

This new exemption application form may be used by a business owner/operator to request, from the UPA, an exemption from HMBP requirements when deploying an emergency power system (i.e. generator) on a temporary/emergency basis during a PSPS event. The UPA is required to review and approve the application for exemption. The UPA must also have the ability to receive public input when approving these applications.

The majority of these generators contain volumes of fuel that would be over threshold amounts and would be required to be disclosed on a HMBP. Based on our discussions, temporary generator deployments can be short term (less than a week) or more, typically fall within the range of 30 to 60 days. Due to the circumstances of an emergency event and potential for relocation of these generators in real-time, it was discussed that submittal of a HMBP into the California Environmental Reporting System (CERS) poses some challenges for industry and the UPAs (both for submittals and reviews).

A copy of the form will be posted on the CFB and Cal OES websites. If you have any questions or comments about the form, please feel free and reach out to:
Darwin Cheng, CFB HMBP Co-Issue Coordinator, dcheng@ochca.com
Frederick Chun, CFB HMBP Co-Issue Coordinator, fchun@santaclaraca.gov
Jack Harrah, Governor's Office of Emergency Services, Jack.Harrah@CalOES.ca.gov
John Paine, California Environmental Protection Agency, john.paine@calepa.ca.gov

State Water Board

Report 6 Due September 1, 2020

The State Water Resources Control Board (State Water Board) recently distributed the Report 6 forms and instructions to all UPAs for the reporting period of January 1 through June 30, 2020. UPAs must submit Report 6 to State Water Board staff no later than September 1, 2020.

The United States Environmental Protection Agency (U.S. EPA) revised the underground storage tank (UST) compliance performance measures known as technical compliance rate (TCR), to reflect changes to the 2015 federal UST regulations. Additionally, the U.S. EPA now requires states to provide the number of field constructed tanks (FCT) and airport hydrant systems (AHS) within their jurisdiction. At this time, UPAs will submit only the FCT as part of the Report 6, due September 1, 2020. Any UST where the primary containment was poured, assembled or constructed onsite, or in situ, must be identified and reported as an FCT.

Since reporting AHS data will require collaboration between State Water Board, UPAs, and operating hydrant system owners and operators to determine if an AHS is subject to UST codes and regulations, and therefore also subject to reporting, UPAs will report

AHS data as part of Report 6 on September 1, 2021. State Water Board will begin to coordinate with involved stakeholders this summer to gather AHS data.

For more information regarding Report 6 requirements please contact
Mr. Steven Mullery at (916) 341-5850 or Steven.Mullery@waterboards.ca.gov, or
Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov.

UST Reporting Regulations

On May 19, 2020, the State Water Board approved amendments to the California Code of Regulations, title 23, division 3, chapter 16 (UST Regulations), sections 2713 and 2716, and Appendices VI, VII, VIII, IX, XI and XIII (forms). The adopted amendments modify the reporting requirements of owners and operators, and UPAs. It is anticipated that the Office of Administrative Law will approve the amendments to the UST Regulations and file the amendments with the Secretary of State in August with an effective date of October 1, 2020.

As amended, UST Regulations, section 2713 modifies the semi-annual reporting requirements (Report 6) to include those items as part of the U.S. EPA performance measures of TCR. Additionally, to comply with UST reporting provisions of the 2005 Energy Policy Act, this section adds a requirement for UPAs to report the facilities where a compliance inspection has not been performed over that pervious calendar year. Section 2716 is amended to require the UST owner or operator to sign all designated operator visual inspection reports within 72 hours from receipt of report from the designated operator. The forms have had substantial changes and will be required for use as of October 1, 2020. Additional guidance is forthcoming. Current information, updates and future guidance on the UST Regulations can be found on the rulemaking web site (https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/repregs/index.html).

For more information regarding 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.

Contractor License Change

It has come to the attention of State Water Board staff that the description for the Limited Specialty contractor license, C-61/D40, Service Station Equipment and Maintenance Contractor definition (https://www.cslb.ca.gov/About_Us/Library/Licensing_Classifications/C-61_Limited_Speciality/D-40_-_Service_Station_Equipment_And_Maintenance.aspx) was expanded by the California Contractors State License Board (CSLB). The modified license description includes "*the testing and adjustment of leak detection and vapor recovery equipment, such as automatic tank gauges, leak line detectors, vapor recovery lines, and in-station diagnostics*." While staff noted the license modification for UST stakeholders any questions or comments in regard to this change must be addressed by the appropriate agency, the CSLB (https://www.cslb.ca.gov/about_us/contact_cslb.aspx).

U.S. EPA's Underground Storage Tank Grant and Program Review

Annually the U.S. EPA conducts a performance evaluation (https://geotracker.waterboards.ca.gov/regulators/library/8090268790/Letter_California_UST_Program_Review_2020.07.06.pdf) of the State Water Board UST Leak Prevention Unit. For State Fiscal Years 2017/2018 and 2018/2019 the U.S. EPA praised California's efforts at minimizing new releases from existing UST systems. The evaluation highlighted that California's UST release rate is less than one-sixth of that of the rest of the country with an annual ratio of new releases to operating USTs at 0.17%, compared to 1.06% for the rest of the country. It was also noted that data quality in CERS improved significantly, with 48 UPAs meeting CERS requirements for paperless reporting of Report 6. The U.S. EPA also commended California for promptly adopting new federal UST requirements, revising the CERS UST violation library, and reporting new US EPA performance measures in advance of the required effective dates.

The evaluation also highlighted some of our program challenges moving forward and asked for prioritization of specific items. California's requirement for closure of all single-walled USTs by 2025 may cause undo strain on the program, so the U.S. EPA recommended that California incentivize early closure of single-walled UST systems by updating the eligibility requirements for the State's Replacing, Removing, or Upgrading UST (RUST) program and pursuing enforcement on non-compliant single-walled UST facilities.

For more information regarding the US EPA's UST program review, contact:
Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

International Code Council Record Verification

It has come to the attention of State Water Board staff that the International Code Council (ICC) has received inquiries regarding the verification of ICC California certificates for California UST Inspector (UI), UST System Operator (Designated) (UC), and California UST Service Technician (UT). The inquiries are from UPA UST inspectors who are unable to verify whether an ICC certificate for UI, UC, or UT is valid using the ICC verification web page (https://www.iccsafe.org/verify/).

ICC has identified multiple reasons why an ICC certificate record may not be found when using the ICC verification web page. Examples include, but are not limited to, the following:

Retaking an Exam – When retaking the ICC UI exam in lieu of using continuing education, the unique record number associated with the individual's original certification may change. In addition, when individuals retake their UC or UT exam, the unique record number associated with the individual's original certification may change. Therefore, UPA UST Inspectors may need to contact ICC to verify UI, UC, or UT certificates.

Expiration Dates – The ICC verification web page incorrectly identifies ICC UI, UC, and UT certificate expiration dates by two days for individuals taking ICC Exams between

September 2017, and January 2019. Therefore, UPA UST inspectors may need to contact ICC to verify UI, UC, or UT certificates.

If UPA UST inspectors find the ICC verification web page returns a message of "Member was not found, please try your search again", "No Certifications On Record For this Member", or other similar message, please contact Ms. Mary Barnett of ICC. Ms. Barnett will aid with finding appropriate ICC records and combine ICC records if applicable, allowing for appropriate use of the ICC verification web page for future ICC certificate verifications.

For more information regarding ICC verification, please contact
Ms. Mary Barnett at 1 (888) 422-7233 ext. 3219 or MBarnett@iccsafe.org, or
Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov.

Updating Unified Program Facility Permits

The Unified Program Facility Permit (UPFP), which includes the UST operating permits are required to be issued by UPAs pursuant to Health and Safety Code (HSC), Chapter 6.11, Section 25404(a). The UST operating permits, which are incorporated into the UPFP, are required to be consistent with both HSC, Section 25285 and UST Regulations, Section 2712. HSC, Section 25285 and UST Regulations, Section 2712 includes the requirements for UST operating permit issuance, permit terms and fees, as well as other permit conditions. UST operating permits are reviewed as part of the triennial CUPA Performance Evaluations and State Water Board staff have identified several CUPA permits and permit conditions not consistent with UST Regulations and HSC. Included below are some of the more common areas of inconsistencies:

- Permit conditions indicate UST owners or operators shall notify the CUPA of changes in substance stored within 30 days, while the regulatory requirement is to notify the CUPA 30 days *prior* to any change in substance stored.
- Permit conditions indicate hard copies of UST operating permits shall be maintained on-site, while the regulatory requirement is for permits to be maintained as a hard copy on-site, or electronically.
- Permit conditions indicate monitoring and maintenance records shall be maintained on-site, while the regulatory requirement is for these records to be maintained on-site, or off-site at a readily accessible location if approved by the local agency.
- Permit conditions indicate the permit is to be displayed in a conspicuous location, while, absent of a local ordinance, this is not required by regulation.
- Permit conditions indicate that facility information and documentation be submitted to the CUPA, while the regulatory requirement is for such documentation to be submitted via CERS or local agency portal.
- Omission of CERS IDs from permits, while the regulatory requirement is to include them on permits.

To ensure UST operating permits and permit conditions meet regulatory requirements, State Water Board staff suggest reviewing the UST operating permits and permit conditions in advance of the CUPAs permit issuance cycle and/or before issuing new permits.

For more information regarding updating UST operating permits please contact:
Ms. Jessica Botsford at (916) 341-7338 or Jessica.Botsford@waterbaords.ca.gov, or
Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov.

DTSC

DTSC's 2020 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)).

The 2020 Verification Questionnaire began Wednesday, July 1, 2020. Access to the electronic Verification Questionnaire (eVQ) System is open and users can complete the questionnaire. The annual Verification Questionnaire and fees assessment for hazardous waste ID numbers and hazardous waste manifests are required by the California Health & Safety Code sections 25205.15 and 25205.16.

If you receive any questions from the public regarding the questionnaire, please refer them to the information below:

Website: https://evq.dtsc.ca.gov
FAQ: https://dtsc.ca.gov/hazardous-waste-id-number-verification-questionnaire/
Email: eVQ@dtsc.ca.gov
Phone: 1-877-454-4012 (toll-free)

Cal FIRE OSFM

Assistant State Fire Marshal Appointment

Chief Wendy Collins was appointed as the Assistant State Fire Marshal by Governor Newson on July 6, 2020. Information may be viewed at https://www.gov.ca.gov/2020/07/06/governor-newsom-announces-appointments-7-6-20/.

CAL FIRE Website

The 'Frequently Asked Questions (FAQ)' section of the Office of the State Fire Marshal (OSFM) Aboveground Petroleum Storage Act (APSA) program website now includes farms (https://osfm.fire.ca.gov/divisions/pipeline-safety-and-cupa/certified-unified-program-agency-cupa/aboveground-petroleum-storage-act/farms/). Information is similar to the 2016 APSA farm fact sheet, but it does not contain the flowchart.

The FAQ section of the APSA website also includes information on APSA petroleum and tanks in underground areas (TIUGA).

Contact the OSFM staff at cupa@fire.ca.gov if you want a document previously posted on the CAL FIRE website, such as those listed below. OSFM will make every effort to provide documents in a timely manner once requested.

- Optional notification form on TIUGAs, or
- Monthly inspection checklist for APSA tank facilities with less than 1,320 gallons of petroleum and has one or more TIUGAs.

Recruitment of Environmental Scientists

CAL FIRE will be in the process of filling two Environmental Scientist positions under the OSFM "CUPA" Program in the next several weeks. Information will be posted on the CalCareers website.
(https://www.calcareers.ca.gov/CalHRPublic/Search/JobSearchResults.aspx#kw=ENVIRONMENTAL%20SCIENTIST)

Main duties of the Environmental Scientists will include the evaluation of Unified Program Agencies, in coordination with other state agencies, in their implementation of the APSA program and the requirements of the fire code hazardous materials management plan (HMMP) and hazardous materials inventory statements (HMIS). The Environmental Scientists will also conduct training and develop or update guidance materials on the APSA and HMMP-HMIS programs.

Contact the OSFM staff at cupa@fire.ca.gov for additional information.

Cal OES

Updated Contact for Cal OES

As of July 1, 2020, Denise Gibson has left Cal OES for another state agency. Please contact Jack Harrah at Jack.Harrah@caloes.ca.gov with any questions or concerns.

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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CalEPA

New CERS Feature: Hazardous Materials Business Plan (HMBP) Annual Certification

In collaboration with the Governor's Office of Emergency Services (Cal OES) and the California CUPA Forum Board, CalEPA deployed a new feature in the California Environmental Reporting System (CERS) on September 18, 2020 allowing a business owner/operator to easily certify Hazardous Material Business Plan (HMBP) information in CERS as complete, accurate and, if applicable, meeting EPCRA reporting requirements. For further information and guidance, please reference CalEPA's CERS Portal Help document (https://calepa.ca.gov/wp-content/uploads/sites/6/2020/09/CERS-Business-Portal-Help-NEW-Feature-AB1429-Self-Certification-9.15.20.pdf).

Demonstration of the new feature is currently being developed and will be provided in October 2020. More information and webinar dates and times will be announced soon.

State Water Board

Underground Storage Tank (UST) Leak Prevention January – December 2019 Annual Report

On August 25, 2020, the State Water Resources Control Board (State Water Board) provided UST stakeholders with the *California Underground Storage Tank Leak*

Prevention January – December 2019 Annual Report
(https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/cal_ust_rpt_jan_dec_2019.pdf).
This report was developed in collaboration between the United States Environmental Protection Agency (U.S. EPA) and the State Water Board. CERS and the California GeoTracker database were utilized to obtain report data. A few noteworthy data points include: Unified Program Agencies (UPAs) are meeting inspection targets; UPA inspection and follow-up continues to drive facility compliance; new regulatory requirements are resulting in an increase in the number of certain violations issued by the UPAs; unauthorized release numbers remain low; and the removal of single-walled tanks/piping remains sluggish.

For more information regarding the annual report, contact:
Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

UST Reporting Regulations Effective October 1, 2020

On May 19, 2020, the State Water Board approved amendments to the California Code of Regulations, title 23, division 3, chapter 16 (UST Regulations), sections 2713 and 2716, and Appendices VI, VII, VIII, IX, XI and XIII (forms). The adopted amendments modify the reporting requirements of owners and operators, and local agencies. On August 27, 2020, the Office of Administrative Law approved the amendments to UST Regulations and filed the amendments with the Secretary of State. Therefore, the effective date of the amendments is October 1, 2020.

As amended, UST Regulations, section 2713 modifies the semi-annual reporting requirements (Report 6) to include those items as part of the U.S. EPA technical compliance rate. Additionally, this section adds a reporting requirement for UPAs to report facilities where a compliance inspection has not been performed over that pervious calendar year. Section 2716 has been modified to require the UST owner or operator to sign the designated operator visual inspection report within 72 hours of receipt, acknowledging the inspection results.

Several of the forms in regulation have been substantially modified. The communication testing requirement has been removed from the *Monitoring System Certification Form* and the *Secondary Containment Testing Report Form*. Structural changes to the forms were added to simplify use by the UST owners, operators and UPAs, and to ensure the documents were accessible to all users. The new forms are required for use on the effective date of October 1, 2020, and can currently be found on the Reporting Regulations web page.
(https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/repregs/index.html)

For more information regarding UST Reporting 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.

UST Regulations and Health and Safety Code (H&SC) Are Accessible Online

State Water Board has provided accessible versions of UST Regulations and H&SC, chapter 6.7, sections 25280 through 25299.8. The accessible UST Regulations and H&SC can be found on the State Water Board web site.
(https://www.waterboards.ca.gov/water_issues/programs/ust/regulatory/docs/CCR_Ch16_10_2018.pdf)
(https://www.waterboards.ca.gov/water_issues/programs/ust/regulatory/docs/hsc_6_7_01_2019.pdf)

As State Water Board staff are expected to work remotely through the end of this year, printed copies of these documents are currently unavailable. Please use the versions provided online for reference, or printing if hard copies are preferred. Revised accessible UST Regulations will be posted on October 1, 2020, reflecting the latest updates approved on May 19, 2020, (detailed in the section above).

For additional information regarding the online UST Regulations and H&SC, contact Mr. Wesley Franks at (916) 319-0742 or Wesley.Franks@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Triennial Enhanced Leak Detection (ELD) Testing for Single-Walled Components within 1,000-Foot Radius of a Public Drinking Water Well

This update serves as a reminder for UPAs to continue to implement and enforce triennial ELD testing during the UST compliance inspection. Triennial ELD testing is required for USTs with single-walled UST components that are within a 1,000-foot radius of a public drinking water well, as required by UST Regulations, section 2644.1(a)(3). When the triennial ELD test is not conducted, violations must be issued during the UST compliance inspection. The correct citation for failure to conduct the required triennial ELD test is section 2644.1(a)(3) of the UST Regulations and the correct violation number from the CERS Violation Library is 2030068 (CERS Violation Library, fiscal year 2019/2020).

Wear-and-tear associated with older single-walled UST components pose increased risk and potential to directly release stored product into the environment, threatening public health. Triennial ELD testing was developed to protect public drinking water wells from these releases, so it is imperative that ELD testing is enforced by UPAs. Therefore, UPAs must initiate administrative or formal enforcement measures to obtain compliance when a triennial ELD test is not conducted.

For more information regarding triennial ELD testing, contact
Ms. Jessica Botsford at (916) 341-7338 or Jessica.Botsford@waterboards.ca.gov, or
Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov.

Approval of Secondary Containment Components

The State Water Board has become aware that UPA plan checks are allowing for the installation of non-integral secondary containment components that have not been designed or constructed to an engineering specification and approved by a California registered professional engineer as defined in UST Regulations, section 2631(d).

Specifically, the State Water Board is aware of UPAs allowing the installation of piping penetrations and sump wall components based on an approval process, rather than meeting the requirement of a California professional engineer.

The State Water Board is reminding UPA plan check staff to be diligent and confirm the proper type of approval or certification is provided during plan check and that all required UST components installed have met the required approval or certification.

For more information regarding UPA plan checks, 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.

Proper Labeling of USTs

It has come to the attention of State Water Board that USTs are being sold and installed without indication of approval by an independent testing organization as required by UST Regulations section 2631(b). Section 2631(b) requires the exterior surface of a UST to "bear a marking, code stamp, or label" (collectively referred to as "label") providing specified information, including identification that the UST has been constructed to specific standards. While UST manufacturers may choose to withhold the required label on tanks it manufactures, tanks without the required label may not be installed as USTs in California.

The State Water Board further understands that tanks have not been labeled because the hazardous substances intended to be stored in the USTs are not part of the compatibility testing protocol used by the independent testing organization. As set forth in UST Regulations, section 2631(j), manufacturers must provide a manufacturer's statement of affirmative compatibility in addition to the required label for USTs to be used to store hazardous substances not included in the testing by the independent testing organization. Tank manufacturers may choose not to make the affirmative statement, however, without the affirmative statement the tanks may not be installed as USTs in California.

The State Water Board is reminding UST Inspectors to ensure all USTs are inspected for proper labels at installation. Tanks without proper labeling cannot be installed as USTs and must be rejected and returned to the manufacturer.

For more information regarding proper UST labeling, 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.

Additions to Local Guidance Letter 113

The State Water Board updated Local Guidance Letter 113
(https://www.waterboards.ca.gov/water_issues/programs/ust/leak_prevention/lg113/)
(LG 113) to reflect the latest leak detection certification by an independent third-party testing laboratory as meeting the leak detection requirements equivalent to European leak detection standard EN-13160-2, Part 2, as a Class I leak detection system. Veeder

Root has updated the Secondary Containment Leak Detection (SCLD), a continual interstitial line monitoring method, for use with the TLS-450Plus monitoring console. Although the console is not yet available for facilities requiring in-station diagnostics, UPAs should anticipate the use of this leak detection with new installations and facility upgrades, and should obtain training on the new SCLD and console through the manufacturer.

For more information on leak detection equipment listed in LG 113, 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.

Reminder to Review and Update UPA Policies and Procedures

UPAs should routinely take time to review and update policies and procedures to remain current with changes to UST Program amendments. Up-to-date policies and procedures are an essential component of a successful UST Program. Therefore, it is necessary that UPAs are maintaining policies and procedures which reflect current UST Program requirements.

UPAs are required to have policies and procedures in place and, therefore, evaluation staff review these policies and procedures during UPA performance evaluations. By updating UPA policies and procedures, potential deficiencies and incidental findings can be avoided. More importantly, the review and update of policies and procedures ensures UPAs implement the UST Program in accordance with UST Regulations and H&SC.

Recent changes to UST Regulations and H&SC regarding provisions of UST red tag requirements, UST operating permit content requirements, and UST operating permit issuance are among amendments that evaluation staff find, where policies and procedures have not been updated. An ideal time to review and update UPA policies and procedures is during the period when an UPA is preparing annual Self-Audit Reports.

To keep apprised of changes to UST Program requirements subscribe to the UST Program listserv. (https://www.waterboards.ca.gov/resources/email_subscriptions/ust_subscribe.html)

For more information regarding the review and update of UPA policies and procedures, or subscribing to the UST Program listserv, please contact
Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov,
Ms. Jessica Botsford at (916) 341-7338 or Jessica.Botsford@waterboards.ca.gov.

DTSC

DTSC Redesigns the Hazardous Waste Tracking System (HWTS)

DTSC's Office of Environmental Information Management has launched the redesigned Hazardous Waste Tracking System (HWTS) on Friday, August 21, 2020. HWTS is DTSC's data repository for hazardous waste manifest and Identification (ID) number information. DTSC relies on HWTS for issuing and tracking ID numbers, registering transporters, and providing information to analyze hazardous waste activities for policy purposes and enforcement. The HWTS redesign modernizes the system's technology, provides a user-friendly interface, improves reporting functionalities, and includes the integration of Uniform Hazardous Waste Manifest data acquired from the U.S. EPA's Hazardous Waste Electronic Manifest (e-Manifest) System. The incorporation of e-Manifest data was the biggest challenge of this redesign and we are happy to report that HWTS now includes manifest data and images for waste generated on or after June 30, 2018. Manifest data is extracted nightly from e-Manifest to ensure HWTS has the most current manifest data available.

With this new and improved design, our development team has made changes to the system's organization, including how you search and view ID number information and manifest data. We have added a prominent ID number search box and combined many of the reports to eliminate redundancies. Not all reports available in HWTS were transitioned for this first release. The team focused on data integration and rewrote the most frequently used reports based on analytics and survey information.

If you have a HWTS account, you should have already received an email with information on the changes to our authentication process that will require you to change your password. We welcome any constructive feedback after you have had the opportunity to review the system. If there is any information that needs to be updated or you have an immediate data need that is not met with the new reporting structure, please email HWTSadmn@dtsc.ca.gov. The development team has made an astonishing amount of changes to modernize the system and integrate e-Manifest data. We appreciate your patience while we continue to make improvements for our next release.

A demonstration of the HWTS redesign is scheduled for Thursday, October 1, 2020, at 10 AM-11 AM. Please click here to join.
(https://zoom.us/j/97053400426?pwd=MTdLTGhjQnowT1F0RnFTRURaQVpIdz09#success)

If you have any issues joining the webinar, please contact Cyndi Gill at cyndi.gill@dtsc.ca.gov.

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

SWANA and ISRI Join Together to Host MRF Summit

Virtual event will take place November 18-19, 2020

REGISTER NOW

SWANA and the Institute of Scrap Recycling Industries, Inc. (ISRI) will partner again for the return of the MRF Summit, taking place November 18–19, 2020. This year's virtual event will explore key issues affecting Materials Recovery Facilities and recycling, including the impact of automation and technology on the workforce, the changing material stream, creating demand for recovered material, and the business economics of MRFs.

“We are very pleased to be partnering with ISRI again to host a summit focused on MRFs and recycling,” stated David Biderman, SWANA’s Executive Director and CEO. “The MRF Summit is timely and needed, given the many changes occurring throughout the recycling system. We invite all recycling and scrap companies, local agencies, and others interested in preserving and expanding recycling to register and participate in this important event,” added Biderman.

Peter Wright, Assistant Administrator at the U.S. Environmental Protection Agency, will be speaking during the MRF Summit, providing an update on the Administration’s work on recycling – both in the context of America Recycles Week as well as the work the Agency is undertaking year-round such as the development of a national recycling strategy. In addition, we look forward to welcoming several Congressional staff, who will discuss the various bills that have been introduced in Congress to address recycling challenges and opportunities.

Many communities have reduced contamination in recent years, but it continues to be a major problem for many MRFs and recycling programs. Some municipal and industry leaders have successfully reduced contamination. These industry leaders will reveal how they successfully tackled contamination. Participants will be given tools needed to expand public education and communications. Technology providers and MRF operators will also share how innovative technologies, including robotics and artificial intelligence (AI), are driving improvements. Participants will learn what tools and equipment are available now to generate high-quality material at a lower cost at facilities.

Adina Renee Adler, ISRI’s Vice President of Advocacy, will deliver a timely review of the challenges and opportunities that are expected in next year’s global market landscape. Advances in innovation, sustainability commitments, and education have inspired growth opportunities for recycled materials, but impending restrictions on trade of these important commodities, including an amendment to the Basel Convention affecting plastic, will have bearing on achieving that growth.

LEARN MORE

“The essential role of recycling and the critical need for a more sustainable society has perhaps never been greater,” said ISRI President Robin Wiener. “ISRI is proud to partner with SWANA to bring together stakeholders from throughout the recycling supply chain for this timely event that will equip attendees with tools for innovative solutions to turn today’s challenges into tomorrow’s opportunities. November’s MRF Summit builds on the success of the event ISRI and SWANA jointly held in 2018 that attracted hundreds of representatives from brands and manufacturers; federal, state and local governments and the recycling industry and started a number of critical conversations that continue today.”

The MRF Summit will provide educational sessions for best practices and the latest industry updates from top leaders in the field in addition to networking opportunities to make connections, meet with the event’s speakers, and discuss the day’s sessions.

For more information about the MRF Summit and to register, please visit MRFSummit.org.

REGISTER NOW

This email is not monitored. Please contact event@swana.org for questions.

Solid Waste Association of North America, 1100 Wayne Avenue, Suite 650, Silver Spring, MD 20910, United States of America

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California Ramps up Consumer Drug Takeback Program With Help

Arlene Karidis | Sep 24, 2020

California is roughly a year away from rolling out regulation requiring the pharmaceutical industry to design and fund a consumer drug takeback program (SB 212), and it's getting closer to having sufficient infrastructure to support the mandate—thanks to a private-public partnership. The players are the California Product Stewardship Council (CPSC), technology services company Inmar Intelligence, the National Action Stewardship Council, and grocery and pharmacy retail chain Albertsons Companies, who teamed to double the number of consumer drug takeback bins through California. Each of these new 18.7-gallon

containers holds about 350 bottles.

Inmar Intelligence works with pharmacies and retailers in 46 states to operate a nationwide drug takeback program, and already had a few dozen bins set up in California.

Then it stepped up to help the state expand its reach at an especially meaningful time. Not only were the SB 212 regulations looming, but CPSC, the administrator of a $3 million grant from California to expand the drug collection bin network, had an opportunity to include Inmar through its client, Albertsons, to help accomplish this goal.

So Inmar arranged for Albertsons and its subsidiaries, who were among its customers, to receive kiosks in their pharmacies, and the company offered to cover some of the costs for this voluntary effort until the time that SB 212 requires the pharmaceutical industry to fully fund consumer drug takeback. The program will be available in nearly 330 Albertsons Companies' pharmacies whereby consumers simply drop surplus and expired medications in secured receptacles. Retailers will receive receptacles, collection service, and shipping supplies for monthly returns with prepaid shipping labels as well as marketing materials to get the word out in the community.

"This partnership helped the grant be more successful and it helped counties that already had ordinances because they got new bins in Safeway Albertsons stores above what was required in their ordinances. And it has made it so much easier for customers to bring back meds because there are more drop off sites, and in places on their normal routes," according to Heidi Sanborn, executive director of the National Stewardship Action Council.She anticipates this project will help address public health and environmental concerns: people will be less likely to flush unwanted pharmaceuticals or leave them in their homes.

For Inmar, who's fast penetrating the drug takeback space, its latest work in California is a way to show retailers how it can support them in setting up

resources. It's also positioned the company to be able help states work to meet tough challenges.

"Inmar has committed to providing expanded service immediately at our own expenses in order for California to be prepared for its new stewardship regulation. We are acting pre-emptively because we believe the current public health crisis is exacerbating the problems created by unneeded/ unwanted prescriptions in the home. This is Inmar's way of enhancing public safety," says Domingo Isasi, vice president/general manager Consumer Drug Take-Back Solutions at Inmar Intelligence.

The pharmacies benefit too. Those that participate in consumer drug takeback programs see increased foot traffic as the kiosk draws people into the stores as well as provides a positive marketing message for their brand, he says.

"We are grateful to Inmar for stepping up and inviting their client, Albertson, to partner on this, and we are grateful for Albertson for saying yes.

We love to partner with companies that are voluntarily doing takeback without legislation. We are happy to help, and it shows we are good partners," says Sanborn whose stewardship organization helped Inmar develop and promote the system.

Barbara Gee, Albertsons district pharmacy manager said at a press event that the program "aligns with [the company's] commitment to protect the planet we live in, conserve its natural resources and preserve it for future generations."

SB 212, developed to address these very environmental issues, as well as public health issues, was authored by Democratic California Senator Hannah-Beth Jackson.

"Safe medicine disposal became a concern to me when I realized there were no options other than to put drugs in the garbage or down the drain, which are not

acceptable," she said.

Medications were ending up in the San Francisco Bay and other waterways due to flushing. She worked with local officials in Santa Barbara to pass environmental producer responsibility legislation there and introduced a bill thereafter to start the talk on the need to ensure what she envisioned as a statewide, free-to-consumer, convenient, and safe medicine disposal program.

SB 212 regulations should be final by the end of 2020 and after a process to get approved stewardship plans in place, the needle manufacturers will be responsible for collecting and destroying needles and drug manufacturers will be responsible for destroying their unwanted products, with both programs starting sometime in late 2021 or early 2022.

Source URL: https://www.waste360.com/legislation-regulation/california-ramps-consumer-drug-takeback-program-help

Report: China clamps down on recycled pellet imports - Plastics Recycling Update

Colin Staub

Posted on September 16, 2020

by

Chinese officials are working to update standards for recycled plastic pellets, laying out new quality requirements. | *Afanasiev Andrii/Shutterstock*

Recycled plastic pellets are facing greater scrutiny upon import into China, international recycling stakeholders recently reported.

The Bureau of International Recycling (BIR) on Sept. 11 wrote that Chinese customs authorities "have been tightening the enforcement of the existing regulations regarding imports of recycled plastics pellets."

Steve Wong, executive director of the China Scrap Plastics Association (CSPA) and the author of the recent BIR update, confirmed to Plastics Recycling Update that pellets must meet "three uniformities" under the Chinese regulations. Essentially, pellets cannot be shipped while mixed together; they must be separated by their color, size and packaging, according to BIR.

The harmonized commodity codes that are used to track global trade do not differentiate between virgin and recycled resin, so it's hard to quantify the volume of recycled pellets shipped to China. But in the wake of the country's 2018 ban on scrap plastic imports, numerous Chinese plastics recycling companies have set up facilities outside the country, particularly in Southeast Asia. The business model behind these facilities is typically to import raw scrap material, process it and export finished pellets to China.

The new enforcement regime went into effect on Sept. 1, Wong wrote, and since then, recycling companies have shipped fewer pellet loads to China "as they want to see how the authorities execute the existing law," Wong wrote.

Beyond the stepped-up enforcement, Chinese officials are working to update standards for recycled plastic pellets, laying out new quality requirements. This update, which is slated to take effect in January, "will likely make the three

uniformities and other requirements even more hard to comply with," Wong wrote.

"The global recycling industry is concerned about the new developments and is expecting new trade barriers for shipping recycled material to the Far East," Wong wrote.

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The Coronavirus Crisis

'Hard, Dirty Job': Cities Struggle To Clear Garbage Glut In Stay-At-Home World

September 21, 2020 · 5:00 AM ET
Heard on Morning Edition

SCOTT HORSLEY

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A man wearing a protective mask looks at piled-up trash in New York City on April 24. Cities are struggling with collection as the volume of residential garbage surges during the stay-at-home era.

Cindy Ord/Getty Images

From empty pizza boxes to Amazon cartons, household trash cans are overflowing with the refuse of our new, stay-at-home era — and cities are struggling to keep up.

Residential trash volume spiked as much as 25% this spring, according to the trade group Solid Waste Association of North America. It has shrunk a bit since then but remains well above pre-pandemic levels.

For garbage collectors, that means longer workdays and more trips to the dump.

"The biggest thing is everybody being home from work and home from school," said Yogi Miller, who collects residential garbage in northeastern Ohio. "More people means more trash. It's as easy as that."

BUSINESS

Without Federal Funding, Ohio Mayor Faces 'Very Painful' Cuts To Services

Demetrius Tart used to collect between 17 and 18 tons of trash each day along his route in Alpharetta, Ga. Now it's more like 22 tons a day.

"The cans are overfilled," Tart said. "The bags are not tied up. You've got to get out and clean it up sometimes when it hits the ground."

Tart's trash truck is equipped with a robot arm to lift the cans, but he can't always keep a healthy distance from the garbage. He worries some of the extra trash he's handling might carry traces of the coronavirus.

"It's scary," Tart said. "I hate that I have to get out and touch stuff that I shouldn't even have to touch. That's the biggest fear in my job — is taking something home to my family."

Article continues after sponsor message

BUSINESS

Cities Have Never Seen A Downturn Like This, And Things Will Only Get Worse

The coronavirus pandemic has disrupted all kinds of supply chains, including the one that leads to the landfill. Some sanitation workers have gotten sick or had to quarantine because of sick co-workers. Baltimore has faced a severe shortage of trash collectors in recent months. And it's not easy to find replacements.

"It is just a hard, dirty job," said Baltimore's acting public works director, Matthew Garbark. "It is quite common for someone to walk off the job within a day or two, because they just don't realize how hard the work is."

While residential trash bins are overflowing, dumpsters sit empty outside vacant office buildings and hotels. But the commercial trucks that ordinarily empty those dumpsters are not easily reassigned to residential neighborhoods.

"We have very narrow streets and alleys," Garbark said. "We actually use a specially designed trash truck that can fit in the narrow alleys. The contractors don't have that."

Baltimore temporarily halted curbside recycling this month so short-handed crews

could concentrate on trash pickup. Residents were encouraged to use new drop-off centers for recycling and not just dump their old cans and newspapers in the trash.

"We have seen a whole lot of neighbors organize themselves to actually take collections to these centers," Garbark said. "Everyone has to work together, because we can't get through this alone."

Nashville, Tenn., is also making adjustments to deal with a surge in residential trash. The city plans to start collecting five days a week instead of four.

"It will be shorter days, shorter routes and much more manageable," said Assistant Public Works Director Sharon Smith. "Particularly if the changes we've seen with people working from home continues on into the future."

BUSINESS

'Do I Really Need This Much Office Space?' Pandemic Emptied Buildings, But How Long?

When trash collection is overwhelmed, garbage piles up in the street, drawing rats, flies and lots of complaints from residents.

"They don't realize how much they need us until something happens where their trash doesn't get picked up," said Miller, the Ohio trash collector. "They want to put it out in the morning. And when they come home in the afternoon, they want it to be gone. That's what I want when I put my trash out."

If there's a silver lining to the garbage glut, it may be the newfound appreciation for a group of front-line workers who were often invisible in the past.

"So many people are working from home," said David Biderman, the solid waste association's executive director. "They see the truck come down the street every day. And they see the men pick up the stuff and put it in the back of the truck. Today is garbage day in my neighborhood, and my neighbor has a sign on her garbage can thanking the sanitation workers."

Tart has seen similar signs on his route in Georgia, along with a child's thank-you note, drawn in crayon and attached to the top of a trash can.

"Sanitation," Tart said. "The world would stop if we stop picking up."

working fr sanitation workers garbage coronavirus trash

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A hydrogen from waste plant

Ways2H, Local Power Aspire to Sell Hydrogen from Waste for Microgrids

Arlene Karidis | Oct 01, 2020

There's a fairly new movement in the U.S. where some jurisdictions are investing in microgrids to bypass utilities while generating locally sourced clean power that is delivered directly to the end user's site, which could for instance be a small hospital campus or an entire downtown area.

The energy is commonly sourced from solar and batteries, but not long ago, Local Power, a Haydenville, Mass-based research and development company, began integrating renewable hydrogen into the microgrid mix. And now it is working with developer Ways2H to bring hydrogen, specifically from waste, into these systems. This latest concept is not just a way to secure locally sourced clean energy, but a way that governments can sustainably manage their would-be trash and cut disposal costs, say the two partners.

“I have been incorporating hydrogen from electrolysis in our consulting work for years, but now I see an opportunity with hydrogen from waste, especially plastics. It’s cheaper and solves the problem of oceans filled with plastics,” says Paul Fenn, founder and president of Local Power. Fenn created a model called Community Choice Aggregation (CCA) whereby jurisdictions across the country aggregate buying power to control their supply and source of energy.

He’s banking on buy in from climate-conscious communities.

“Plastics have ended up in oceans when municipal recycling programs have offshored their waste. So, there is a dire need for municipalities to repair that problem,” he says.

The plastics problem has only grown the past several years since shipping to China is no longer an option, leaving limited places to send these materials. But with community microgrids waste wouldn’t even have to leave town.

End users get a daily delivery of small tanks of hydrogen, which does not as yet include hydrogen from waste. Fenn and Ways2H CEO Jean-Louis Kindler are working to secure feedstock from waste companies and municipalities, with plans to convert it and sell the energy for microgrid use.

For microgrids he wants to develop, 10 to 30% would come from hydrogen. He tells clients and potential clients that hydrogen-powered microgrids will help ensure resilient energy that continues to flow when the traditional utility grid goes

down. This system will cut dependency on the sun to create renewable energy and will limit reliance on large battery storage to overcome the issue of unpredictable availability of renewables.

With hydrogen sourced specifically from waste, says Kindler, "Not only are we addressing a waste problem, but if we can utilize carbon capture and storage [sequestering C02 emitted from the hydrogen production process] we are doing better than that because we are taking carbon that is in the atmosphere and sending it back underground. So, it's truly a carbon-negative solution."

The hopeful plan is to truck energy daily from local landfills to the buildings it will power. Kindler's technology should do well to support this system as Ways2H's waste-to-hydrogen production units are modular, transportable, and easily installed onsite, close to where waste is produced.

Fenn says delivery of one small tank a day would sufficiently power a building indefinitely.

It will mean using less grid power, thus achieving a lower carbon footprint as the grid itself is carbon intensive, with greenhouse gas emissions generated by power plants that supply utilities.

Fenn says he has completed year-long consulting projects with several cities interested in investing in a community microgrid that would integrate clean hydrogen sourced from waste.

His main discussions have been in Massachusetts, California and New York, but he specified only one prospect: a town in Massachusetts where he is working on a potential deal.

"They are now paying others to take away their waste, and we would convert it at Ways2H's processing facility, put it on a tank truck and drive two to five miles a day delivering the hydrogen and returning to the landfill," Fenn says.

Now he is addressing municipalities' questions about how the microgrid would work, making sure it's safe, and discussing what would be entailed in building upgrades to accommodate the system.

He and Kindler are optimistic about their prospects. About 1,500 U.S. municipalities representing 30 million Americans provide CCA service, many who are looking for new sources of local, reliable, renewable power to offset their carbon footprint.

"We're tying together key components of the climate problem — energy, decarbonization and resiliency and also removing grid barriers to deployment of local energy generation. And with hydrogen from waste comes the added benefits of reducing costs for waste disposal and adding to the solar array by providing an off grid-fuel source that comes from landfill," says Fenn.

Source URL: https://www.waste360.com/gas-energy/ways2h-local-power-aspire-sell-hydrogen-waste-microgrids

Mobile-shred workers uniquely vulnerable to toxic metals - E-Scrap News

Jared Paben

Posted on September 17, 2020

by

Researchers found that mobile shredding of hard drives and other small electronics exposes workers to airborne and surface metals dust, as is the case with in-plant shredding. | Huguette Roe/Shutterstock

Researchers have discovered that shredding e-scrap materials in trucks may expose employees to as much toxic metal dust as in-plant shredding, but mobile workers may not be as protected as their plant-based counterparts.

The first-of-its-kind study was conducted by Diana Ceballos from the Boston University School of Public Health and Michael Zhou and Robert Herrick, both from Harvard University's T.H. Chan School of Public Health. Their paper was published in August in the Annals of Work Exposures and Health.

The researchers found that mobile shredding of hard drives and other small electronics exposes workers to airborne and surface metals dust, as is the case with in-plant shredding. But the mobile unit employees may face higher risks because they're working in a remote and small space with no ventilation, Ceballos told E-Scrap News.

"Mobile shredding should have, at a minimum, the same protections that workers have when shredding e-waste in a facility," she said.

Meanwhile, in a separate study Ceballos was involved in, scientists for the first time studied lead and noise exposure at registered e-scrap recycling facilities in China. Results of that work was published this month.

Mobile shredding project takeaways

The mobile shredding study involved taking air and surface samples during a 2019 shredding project at a mobile unit parked outside an unnamed e-scrap recycling facility in the Boston area. The unit consisted of a shredder inside of a

semi-truck trailer. The shredder was powered by a diesel-electric generator mounted on the back of the tractor.

Samples were taken during a 65-minute shredding job, during which 200 hard drives and solid-state drives were hand-fed into the shredder. The trailer had no ventilation except for its open back door, and the employee didn't use any personal protective equipment (PPE).

"In this initial assessment of metals and particulates exposure in a mobile e-waste shredding truck, both air and surface samples suggest that shredding inside a truck is an important source of exposure to toxic metals and particulates in workers," according to the researchers' paper.

The analysis showed that, during shredder operation, the concentrations of lead dust in the air were on par with levels found around e-scrap shredders in warehouses. If the concentrations were sustained over an entire work shift, lead exposure likely wouldn't exceed current occupational limits but would exceed lower exposure limits currently under consideration in California, the study noted.

"Although, If we sampled the breathing zone of the worker, lead concentrations would likely be higher than the measured area samples as is typical in the e-recycling industry," the paper states.

Surface contamination was highest, not surprisingly, on top of the shredder, where the levels were also comparable to those in warehouse-based shredders. On the shredder, where there was dust accumulation from previous jobs, the concentrations of arsenic, chromium, and lead exceeded recommended levels.

In terms of particulates in the air, they reached their peak within minutes of the shredder beginning operation, and they were highest near the worker. Those air pollution levels still hadn't returned to background levels after 40 minutes of shredder inactivity.

Overall, the concern isn't that the mobile shredders are emitting substantially more toxic metals than a plant-based unit but that the offsite workers may be working in poorly ventilated trailers without PPE, resulting in greater exposure.

"We recommend the industry adopts better controls for shredding inside trucks, such as local exhaust ventilation with proper filtration and use of personal protective equipment, to protect workers' health and the environment," according to the paper.

Boston University on Sept. 1 issued a press release about the research. Ceballos' research on exposures to toxic metals and flame retardants has been covered several times by E-Scrap News, including work she did while she was at Harvard.

Exposures at regulated Chinese facilities

In a separate project, researchers found that workers at registered e-scrap facilities in eastern China were exposed to hazardous levels of airborne lead and noise. It was the first study of its kind at formal e-scrap facilities in the country.

Monitoring was conducted in 2017 over two shifts for a total of 168 employees. The results showed that employees dismantling CRTs and breaking glass were sometimes overexposed to lead and noise. Employees involved with plastic shredding were overexposed to noise.

"The simultaneous exposure to lead and noise at medium to high levels in Chinese electronics recycling employees is of concern, as the combined exposure can exacerbate hearing loss," according to the paper, which was published in the September 2020 issue of the International Journal of Hygiene and Environmental Health.

For the project, Ceballos assisted the following researchers from Jiangsu, China: Wei Gong and Liangliang Zhao, both from the Jiangsu Provincial Center for Disease Control and Prevention, and Baoli Zhu of the Nanjing Medical University School of Public Health.

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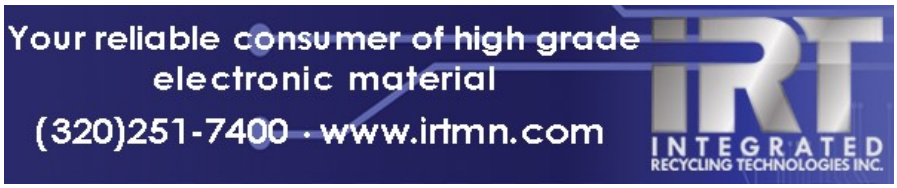

Two paper mills begin accepting plastic-lined cups - Resource Recycling News

Colin Staub

Posted on September 15, 2020

by

Disposable coffee cups like these have a plastic coating that has historically left them out of the recovery and recycling process. | NatalyaBond/Shutterstock

Georgia-Pacific this week said two of its mills are bringing in mixed-paper bales that include single-use cups with a polyethylene barrier layer.

Georgia-Pacific, an Atlanta-based packaging and recycling firm, on Sept. 15 announced its decision to accept cups in mixed-paper bales at the Green Bay, Wis. and Muskogee, Okla. recycled paper mills. The change was made as part of a partnership with the Foodservice Packaging Institute (FPI) and the NextGen Consortium, a cup-focused initiative led by Closed Loop Partners.

"PE coatings, along with any remaining liquid and food left behind from use, have historically left single-use paper cups out of the recovery and recycling process," the project partners stated in a release. "Georgia-Pacific, though, has proven through its extensive re-pulping trials that the Green Bay and Muskogee mills can effectively recapture valuable cup fiber from paper cups while screening out PE coatings and reuse the fiber to make toilet tissue, napkins and paper towels."

Kate Daly, a managing director at Closed Loop Partners, said the mill operator's actions "reinforce the value of the materials in paper cups and build critical markets for recycled materials."

Natha Dempsey, president of FPI, said the organization is "excited to partner with new communities that previously didn't have the capability to recycle" PE-coated paper cups.

Georgia-Pacific joins several other major paper product companies in paper cup acceptance. WestRock in 2018 began accepting single-use paper cups at eight of its mills across the country. Mill operator Sustana also began accepting these cups in recent years, and the company even uses some of the output fiber to create new paper cups.

MRFs are also exploring more widespread acceptance of PE-coated cups, with some facilities employing robotic sortation to better capture the materials. Meanwhile, paper product producers Cascades and Sonoco have invested to produce a cup without a PE barrier, potentially facilitating greater acceptance of cups by fiber mills.

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Scrap paper and plastic markets hit by confluence of forces - Resource Recycling News

Colin Staub

According to one analyst, domestic demand for OCC was up about 6% during the first five months of 2020. | digitalreflections/Shutterstock

Supply and demand realities for key curbside materials are evolving fast, impacted by the coronavirus pandemic, domestic processing capacity increases and other key trends, according to two experts.

Bill Moore of Moore & Associates and Stephanie Baker of KW Plastics last week described the factors impacting recycled material end markets. They spoke during a session of WasteExpo Together Online 2020, a virtual event held in lieu of the annual convention.

During the session, Moore outlined the state of North American end markets for recovered fiber, and he explained why mixed paper has become a more important commodity in the domestic marketplace.

Meanwhile, Baker described how the pandemic has shifted demand for recycled plastic and created surges in certain markets. She also explained recent investments her company has made to keep up with the demand.

Paper supply increase offset by recovery challenge

On the fiber side of the equation, the amount of OCC being generated is growing, Moore said, driven largely by more corrugated boxes being used in the e-commerce market.

However, the supply increase is not cleanly translating into more material being recycled. That's because of lagging OCC recovery rates in the residential recycling space, where the new OCC supply is ending up, Moore said. There are "significant losses" in this space.

Moore said OCC recovery rates in the commercial sector, particularly from retail stores, is greater than 90%.

"The recovery of corrugated boxes from households is much lower: 40% or 45%," he said. "And the primary reason is that a large percentage of households don't participate in programs."

That's a particular challenge in the multi-family sector, where recycling access lags far behind that of single-family homes and

contamination is a larger problem.

Mixed paper remains among the largest fiber grades handled in the recycling sector and is "the most under-recovered," Moore said.

The recycled newsprint market is "really kind of disappearing," with very little generation and the pandemic accelerating that trend. Meanwhile, higher-grade printing and writing paper generation is on the decline as they are simply used less in the business world, Moore explained.

Domestic demand outlook is strong

OCC exports were down 24% during the first half of 2020 compared with a year earlier, Moore said, while overall recovered fiber exports dropped 25%. Much of the decrease stems from China reducing imports steadily in recent years, a trend that will likely continue with the country's all-out ban on recovered material imports next year.

"We expect to see zero recovered paper exports to China," Moore said.

Moore tallied some 4 million tons per year of announced North American recycled containerboard capacity coming on-line through 2023, all of which will use OCC and most will some some amount of mixed paper. A couple of those projects are speculative in terms of financing, he noted.

Domestic demand for OCC was up about 6% during the first five months of 2020 compared with 2019, Moore noted. He pointed to a handful of recycled fiber mill projects coming on-line during 2020, including International Paper in Riverdale, Ala.; McKinley Paper in Port Angeles, Wash.; Nine Dragons (ND Paper) in Rumford, Maine; North Pacific Paper Company (NORPAC) in Longview, Wash.; and Verso in Duluth, Minn.

Moore cited a handful of projects that have increased or will grow domestic mixed-paper demand, including Pratt Industries in Wapakoneta, Ohio; Green Bay Packaging in Green Bay, Wis.; Cascades in Bear Island, Va.; Copamex in Anáhuac, Mexico; McKinley Paper and NORPAC.

During the first half of 2020, U.S. mills consumed 4% more mixed paper than they did in 2019, Moore reported.

If those mill projects had been undertaken 10 or 15 years ago, Moore said, "they would have been OCC only." As is, mixed paper has begun to look more attractive given its significant supply, particularly in times when OCC prices spike.

Growth in mixed-paper consumption will likely continue into the future. OCC demand "will outpace supply going forward," Moore said, "so we need more mixed paper."

MRFs are increasingly rising to the task of creating a cleaner mixed-paper product, and mills are able to install increasingly advanced stock preparation equipment.

Pandemic hits paper recovery hard

COVID-19 has had a "real impact" on OCC recovery, Moore said. Recovered fiber collection as a whole dropped 30% to 50% during the second quarter of 2020, he said. That echoes a collection decline figure offered by Hannah Zhao, senior economist of global recovered paper for analysis firm RISI, in May.

With many retail outlets, schools and other recovered fiber generators slowing down or shuttering altogether, OCC generation declined between 20% and 30% during March. Grocery stores were a rare exception, seeing an increase in generation as consumers went through a phase of panic-buying.

"There was a real run on OCC in April and May, and residential volumes went up – but again, we lose a higher percentage of that OCC," Moore said.

Beyond generation impacts, the pandemic led some MRFs to make operational adjustments that impacted their ability to sort material, such as slowing sort lines due to staffing shortages. These changes have mostly reversed, Moore noted, and the key concern now relative to recovered fiber impacts is whether the country will climb out of the coronavirus-driven economic slump quickly, or whether the impact will linger.

Crisis reinforces value of recycling

Plastics recycling operators, meanwhile, are encountering their own set of issues.

Public perceptions around plastic have shifted during the pandemic, after a few years of heavy anti-plastics sentiment that sometimes translated into product bans, explained Baker, director of market development for KW Plastics.

"Suddenly, COVID-19 hit and safety and health became an immediate priority overnight," Baker said. Single-use products found a newfound benefit in preventing the transmission of the new virus.

Supplying the products became the new challenge, and KW, a major reclaimer based in Troy, Ala., quickly began receiving letters from customers who were concerned about sourcing sufficient resin to meet higher demand. Those supply concerns placed greater value on the importance of recycled material processors.

"From the very beginning, there was no question whether recycling was considered essential or not," Baker said.

"I think it shifted the conversation from talking about recycling as part of the waste industry to talking about recycling as part of the manufacturing industry," she said.

Demand impacts vary by grade

KW witnessed how the pandemic increased and shifted resin demand substantially.

Demand for natural HDPE spiked quickly, because that resin is used in a wide range of consumer goods products. It is attractive for manufacturers because it can be used to produce products of any color.

“We were sold out immediately for that material,” Baker said. The company received letters from buyers committing to purchase as much resin as KW could supply, a trend that is still continuing.

Mixed-color HDPE saw more of a demand shift, rather than all-out increase. The automotive sector is a major end market for this material, and with car manufacturing shut down in the early weeks of the pandemic, a huge market disappeared and KW saw a short-term decline in that arena.

But as car sales slowed, home improvement projects increased, and KW saw demand growth from agricultural product producers making plant pots and similar rigid plastic products.

KW is also a major PP reclaimer, and the company has seen greater interest from brands in exploring recycled PP use in their products in recent years. That activity slowed to a halt with the onset of the pandemic as companies focused on the essential items that were in high demand. Now, Baker said, some of those PP projects are back in the works, and KW is seeing continued commitment from brands to use recycled PP.

“That is back and shows some very strong signals that we’ll continue to see demand growth for polypropylene,” she said.

Meanwhile, KW is experiencing PP product demand trends firsthand through its in-house manufacturing operation that produces paint cans from recycled PP.

“We have never seen demand in the paint and coatings industry like we have,” Baker said. Typically demand spikes in the spring with consumers launching home improvement projects, and demand levels off late in summer as fall approaches.

This year, “the retailers that sell paint are still going very strong,” Baker said. KW has added additional lines and hired more employees to keep up with that PP paint can demand.

Demand trends could be here for the duration

The overall demand increase across resins led KW to add two new extruders to its production line.

“If we can get the equipment, which is tight right now, we have plans to add two or three more, because we feel like we are going to see this demand continue to grow for at least the next two or three years,” Baker said. “We want to do everything we can to get ahead of that demand.”

“So we are investing in the middle of the pandemic, as crazy as that sounds, into more production capacity,” she continued.

All of these developments indicate that domestic recycled plastic end markets are “very strong and they are reliable,” Baker said.

She attributed KW’s success during the pandemic in part to its diversity of suppliers and customers, and its critical mass of sourced material.

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What Will the 2020 Elections Mean for Waste?

Stefanie Valentic | Sep 21, 2020

WasteExpo Online Together attendees heard from Democratic and Republican representatives about what the upcoming national election could mean for the waste industry.

Speakers included Robert Boland, Deputy Executive Director, National Republican Congressional Committee (NRCC) and Jessica Knight Henry, National Political Director, Democratic Senatorial Campaign.

Henry began by thanking the National Waste & Recycling Association (NWRA) and the work the organization has done during the pandemic.

“We know how important it is to have representation at the highest levels on government who are embedded and understand what we are going through during these unprecedented times,” she said.

Henry then began speaking against Senate Majority Leader Mitch McConnell, saying he has done “whatever he can to stand in the way of progress,” specifically in the areas of Supreme Court nominations, prescription drug access, healthcare and climate change.

Early projections from July 17, 2020 show Biden is leading in “pivotal” battleground states including Pennsylvania, Michigan, Arizona, Florida and Wisconsin, which Trump successfully led in 2016.

“We continue to be emboldened and excited about how these numbers are setting up in creating a pathway for victory in November,” Henry said.

The Democratic party currently holds 47 seats in the Senate. Thirty-five representatives are not up for election. To gain the majority, the Democratic party would have to net three seats and the presidency. The Republican party currently holds 53 seats and 23 are up for election.

Henry explained that in order to gain votes in battleground states, the Democratic party has been speaking to constituents directly to explain their platform. She pointed out states that have been conservative-leaning in the past, such as Alaska, have reportedly been “making strides” towards Democratic candidates following their efforts.

“Even in these more conservative states where we know we’ve had Republican strongholds – Iowa, Maine, Minnesota and Montana, we’re again seeing that shift,” she said.

Key incumbent states for the party include Alabama, Michigan, Minnesota and New Hampshire. Other races to watch include Alaska, Kansas, Kentucky, South Carolina

and Texas.

Henry then explained the Democratic Senatorial Campaign's work for voter protection rights. She pointed to pre-paid postage, reform signature matching laws, allowing community organizations to collect ballots and ensuring ballots postmarked by Election Day are counted.

"Just in Georgia we have seen a ton of irregularities, extremely long lines that do make it hard for people to come out to vote," Henry said.

Henry finished by reaffirming that the 2020 Elections are "in a dead heat." The pandemic has disrupted the in-person campaigning environment, making virtual fundraisers and other methods more prominent.

"For the most part, people are picking up the phone. They're texting their neighbors. They're actually interacting on a more local, relational organizational level, which is what we strive for. We want neighbors and families talking to each other about why it's important to exercise your vote," she explained.

Henry concluded by encouraging citizens to vote early or to vote by mail. Absentee votes may also be dropped off in person, with safety precautions in mind.

Boland's presentation showed an alternative view to the upcoming election cycle.

"From the top line, [Republicans] need 17 seats to take back the majority," he said. "In 2018, it was 106,000 votes out of 113 million cast that lost the house for us. We are confident that we will get these seats back and then some in November."

Boland said the road to victory begins with good candidates. He said the party is "proud" of the diverse group of candidates offered for the upcoming elections in November.

"In January 2019, [NRCC] Chairman [Tom] Emmer tasked our team with recruiting a diverse field of candidates that reflect the diverse nature of the Republican party at the grassroots level," he continued.

The current Republican pool comprises of 90 female nominees, 73 minorities and 104 veterans. Boland added that there is "momentum" on the party's side, citing additional stats about the candidates and improving fundraising efforts that topped Democratic opponents in a number of states.

"The chairman tasked our team with fighting tooth and nail each day to make an honest run at the majority and to raise the resources necessary to go on offense," he said. "If we are going to have a successful election night, we all need to put in the work and play a flawless game as a team. There is no room for error.'

Boland alluded to the "turbulence" the party is facing around the country. However, internal polling showed for the first time during the election cycle, the Democratic Congressional Campaign Committee is "making reservations in offensive districts."

"In some cases, this is because the ticket above us is not performing," he explained. "In other cases, it is because the GOP incumbents are not doing their job and putting themselves in a position to win. But make no mistake, we have the formula to win."

He once again pointed to the slate of candidates and the Republican playbook that is “unbeaten in every special election that we’ve played in this cycle.”

Boland said current projection numbers are “holding strong” across the United States. He pointed to leads in Florida, Iowa, New Mexico, Utah, Minnesota and other districts, many of which Democratic nominee Hilary Clinton won in the 2016 national elections.

“We can take out these Democrats, but it is our responsibility and our duty to ensure we can be on offense and define ourselves from the races on the ticket above,” he said.

He concluded by explaining what Republican control of the House would look like for business and economic growth.

“In short, having Republican control of the house means having a Congress that is focused on maintaining competitive tax rates, encouraging smarter approaches to regulation, and providing long-term certainty for businesses and their employees,” Boland said.

He continued, “by maintaining lower income tax rates, instead of increasing them which is routinely proposed by Democrats workers will be able to keep more of what they earn. To that end, supporting a competitive corporate tax rate for U.S. companies in the global marketplace while creating an environment that allows businesses to focus on capital investment will continue to drive our economy forward for decades to come.”

The Republican platform also includes relief for federal excise taxes on heavy-duty vehicles. During this “time of uncertainty,” raising taxes on small business owners and essential industries would be a “non-starter” for the party.

This strategy in a Republican-led House would lead to increased investment, higher outputs and better wages throughout the United States, Boland said.

Want to see this session on demand? You can still register at WasteExpo.com.