

**Planning Committee/
Recycling Board Members**

Dianne Martinez, **President**
ACWMA

Adan Alonzo, **1st Vice President**
Recycling Programs

Jerry Pentin, **2nd Vice President**
ACWMA

Bernie Camara, Recycling Materials Processing Industry

Peter Maass, ACWMA

John Moore, Environmental Organization

Jim Oddie, ACWMA

Michael Peltz, Solid Waste Industry Representative

Tim Rood, ACWMA

Toni Stein, Environmental Educator

Sarah Vared, Source Reduction Specialist

Wendy Sommer, Executive Director

AGENDA
MEETING OF THE
PLANNING COMMITTEE
AND
ALAMEDA COUNTY RECYCLING BOARD

Thursday, November 9, 2017

7:00 P.M.

Hayward City Hall
777 B Street
Conference Room 1C
Hayward, CA 94541
510-583-4000
(Directions attached)

Meeting is wheelchair accessible. Sign language interpreter may be available upon five (5) days' notice to 510-891-6500.

I. CALL TO ORDER

II. ROLL CALL

III. ANNOUNCEMENTS BY THE PRESIDENT

Page **IV. CONSENT CALENDAR**

1 **1. Approval of the Draft Minutes of October 12, 2017 (Tom Padia)**

7 **2. Board Attendance Record (Tom Padia)**

9 **3. Written Report of Ex Parte Communications (Tom Padia)**

V. OPEN PUBLIC DISCUSSION

An opportunity is provided for any member of the public wishing to speak on any matter within the jurisdiction of the Board, but not listed on the agenda. Each speaker is limited to three minutes.

VI. REGULAR CALENDAR

11 **1. Municipal Panel: Franchise Contracts for Waste, Recycling and Organics Services (Meghan Starkey)**

This item is for information only.

15 **2. Mandatory Recycling Ordinance Project Update (Rachel Balsley)**

This report is for information only.

- 21 **3. Member Agency Conformance with “Adequate Commercial Recycling”
Standard and Municipal Eligibility to Receive Measure D Per Capita
Allocations (Tom Padia)**

This report is for information only.

VII. OTHER PUBLIC INPUT

VIII. COMMUNICATIONS/MEMBER COMMENTS

IX. ADJOURNMENT

**Hayward City Hall
777 B Street
Hayward, CA 94541**

Directions

Directions from I-880 North

Take I-880 South toward San Jose
Take the A Street Exit toward Downtown
Turn Left onto West A Street
Turn Right onto Grand
Turn Left onto B Street
Right onto Watkins

Directions from I-880 South

Take I-880 North towards Oakland
Take the A Street Exit toward Downtown
Turn Right onto West A Street
Turn Right onto Grand
Turn Left onto B Street
Right onto Watkins

Parking is available across the street from Hayward City Hall on Watkins

Directions from BART

Get off at the Hayward BART Station
Exit the Station
Turn Right onto B Street
Walk 1 Block to Hayward City Hall at the corner of B Street and Watkins

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DRAFT

**MINUTES OF REGULAR MEETING OF THE
PLANNING COMMITTEE
AND
ALAMEDA COUNTY RECYCLING BOARD**

Thursday, October 12, 2017

4:00 P.M.

**StopWaste Offices
1537 Webster Street
Oakland, CA 94612
510-891-6500**

**Teleconference
Tim Rood
San Jose City Hall
3rd Floor Tower
200 East Santa Clara St
San Jose CA 95113
408-535-8122**

I. CALL TO ORDER

Dianne Martinez, President, called the meeting to order at 4:02 p.m.

II. ROLL CALL

Adan Alonzo, Recycling Programs
Bernie Camara, Recycling Materials Processing Industry
Peter Maass, ACWMA
John Moore, Environmental Organization
Jim Oddie, ACWMA
Tim Rood, ACWMA (teleconference)
Toni Stein, Environmental Educator
Sarah Vared, Source Reduction Specialist
Dianne Martinez, ACWMA

Absent:

Michael Peltz, Solid Waste Industry Representative
Jerry Pentin, ACWMA

Staff Present:

Tom Padia, Deputy Executive Director
Wendy Sommer, Executive Director
Meghan Starkey, Senior Program Manager
Farand Kan, Deputy County Counsel
Arliss Dunn, Clerk of the Board

Others Present:

Arthur Boone
Joshua Perez, Independent Recycling Services

III. ANNOUNCEMENTS BY THE PRESIDENT

President Martinez introduced Board member Sarah Vared. Board member Vared will be serving in the capacity of Source Reduction Specialist. Board member Vared provided a brief overview of her background and stated that she is looking forward to serving on the Board.

Tom Padia distributed a one-page topic brief profiling Fixit Clinic. Fixit Clinic is one of our grantees and recently made a presentation to the Board. Board member Oddie had requested that staff provide a one-page flier highlighting Fixit Clinic that he could share with his colleagues on the Alameda City Council. Jeff Becerra, Communications Manager, plans to periodically produce one-page profiles of other grantees. The flier is attached as a matter of record.

IV. CONSENT CALENDAR

- 1. Approval of the Draft Minutes of September 14, 2017 (Tom Padia)**
- 2. Board Attendance Record (Tom Padia)**
- 3. Written Report of Ex Parte Communications (Tom Padia)**

Board member Maass made the motion to approve the Consent Calendar. Board member Rood seconded and the motion carried 8-0. The Clerk called the roll:

(Ayes: Alonzo, Camara, Maass, Moore, Oddie, Rood, Vared, Martinez. Nays: None. Abstain: None. Absent: Peltz, Pentin, Stein).

V. OPEN PUBLIC DISCUSSION

Arthur Boone informed the Board that in August, he was awarded the Lifetime Achievement Award from the National Recycling Coalition. Mr. Boone stated that the Bay Area and up to the state of Washington is the center of innovation in the recycling field and in March of each year nearly 350 people participate in a Northern California Recycling Association (NCRA) recycling update and share information. Mr. Boone stated that last week he attended a conference by National Solid Waste Association of North America and expounded on the subject of methane.

Joshua Perez provided an update on how his business is working to alleviate illegal dumping with respect to mattresses. Mr. Perez stated that his company will accept mattresses at a cost of \$30 for four mattresses. Mr. Perez stated that he is working with DR3 Mattresses as well. Mr. Perez provided an update on how he is educating his customers and refers people to other disposal and recycling services. Board member Stein inquired about how long he has been in business. Mr. Perez stated that his family has operated the company since 2014 and he joined the company last March as an office assistant but he has been in his current capacity for 8-9 months.

VI. REGULAR CALENDAR

- 1. 2017 Legislative Update (Eric Engelbart)**

This item is for information only.

Eric Engelbart provided an overview of the staff report. The report is available here:

[2017-Legislative-Update-10-12-17.pdf](#)

Board member Stein inquired about SB649 (re: wireless telecommunications facilities) and stated that there is no provision for extended producer responsibility (EPR) at the end of life and stated that the

Environmental Health Trust opposes the bill and is hoping that the Governor will veto the bill. Board member Stein added Alameda County and both the California State Association of Counties and the League of Cities oppose the bill and recommends that the agency oppose the bill as well. Board member Stein commented with respect to water recycling and water preservation that there are breakouts of Hepatitis A in San Diego and Los Angeles counties. She further added that such breakouts could be coming to the bay area and will require an increased use of washing with water and gray water if such water does not contain other products that may pose health risks.

Joshua Perez provided public comment regarding the bottle bill. Mr. Perez stated that hopefully we can make progress on the bottle bill as he has noticed an increase in litter from bottles as well as a public reluctance to recycling plastic and glass bottles. Mr. Boone commented on the low market prices for glass and added if you make glass from recycled glass it will save energy as it does not require such intense heat. Mr. Boone encourages staff to look into this issue.

President Martinez thanked Mr. Engelbart for his presentation.

2. Alameda County Operational Area Emergency Management Organization (Meghan Starkey)

Staff recommends that the Planning Committee recommend that the WMA Board adopt the attached Resolution to Join the Alameda County Operational Area Agreement.

Meghan Starkey provided an overview of the staff report. The report is available here:

[Alameda-County-Operational-Area-Agreement-10-12-17.pdf](#)

Board member Maass inquired if staff was aware of the disposal efforts after the Oakland Hills fire. Ms. Starkey stated she doesn't have specific knowledge regarding the hills fire but the intensity of the fire didn't leave much debris. Board member Maass recommended that we study the aftermath of the Napa fire to see how they handle debris management. Ms. Starkey stated that we have also looked at debris management after the San Bruno fires and other recent fires. Board member Stein inquired if staff would be doing any outreach to establish adequate point persons. Ms. Starkey stated that the city's Public Information Officer is the responsible person in these situations. Board member Stein inquired about the value to the agency for being involved. Ms. Starkey stated that we would act as a resource for other public agencies who may be in need of our assistance for issues such as proper debris management following a declared disaster or emergency.

Board member Oddie stated that the City of Alameda developed their disaster plan a year ago and recently hired a consultant to further refine the plan. He inquired as to how the city would receive notification of the debris management plan. Ms. Starkey stated that she is consulting with TAC and encouraged elected officials to direct staff to prioritize the issue. Board member Alonzo stated that as a private facility, they would like to be a resource but stringent restrictions when dealing with fire debris will prove difficult as most transfer stations with a solid waste permit cannot accept ash or other hazardous materials. Mr. Padia stated that in a declared disaster, the state has the authority to temporarily suspend a number of restrictions for facilities such as hours of operation, total volumes per day, load checking, etc. and may allow facilities to accept debris and other non-hazardous waste that is not consistent with the terms of their existing permit or the design and operation standards of their facility. Board member Stein stated that she supports more discussion regarding coordination between city, state and local government for proactivity prior to a disaster. Board member Maass inquired about any financial implications to the agency if we were to join the agreement. Ms. Starkey stated there would be minimal obligation and cost to the agency as it would be primarily staff time providing assistance to TAC members.

Board member Stein made the motion to approve the staff recommendation. Board member Oddie seconded and the motion carried 9-0. The Clerk called the role:
(Ayes: Alonzo, Camara, Maass, Moore, Oddie, Rood, Stein, Vared, Martinez. Nays: None. Abstain: None. Absent: Peltz, Pentin).

3. Mattress Product Stewardship Update (Tom Padia)

This item is for information only.

Tom Padia provided an overview of the staff report. The report is available here:

[Mattress-Product-Stewardship-Update-10-12-17.pdf](#)

Board member Stein stated that Arlene Blum, Green Science Policy Institute, was successful in labeling of mattresses that contain flame retardants to enable the public to make an informed decision when purchasing a mattress. There's also the issue of toxicity and worker safety when handling toxic products. Board member Stein stated that it would be useful to include some type of declaration regarding safety when handling certain products. Mr. Padia stated that he had spoken with Ms. Blum some time ago and she indicated the primary concern was with sofa cushions and not mattresses. Board member Stein inquired about the methods for recycling the mattresses. Mr. Padia stated that our role in the lobbying during the development of the legislation was to ensure that there was a focus on reuse when recovering the mattresses. At DR3 in Oakland, an element of their business model is that they won't have to spend significant time tearing apart a certain percentage of incoming mattresses but rather sell them to a mattress recovery facility.

Mr. Boone commented that with respect to extended producer responsibility (EPR), the manufacturers are not interested in used products and it would be a major change to have manufacturers concerned about the end of life of their products.

President Martinez thanked Mr. Padia for his report.

4. Planning Committee/Recycling Board Meeting Time (Tom Padia)

That all current members of the Recycling Board indicate whether or not a change in 2018 to 3:00 p.m. afternoon meeting times would be acceptable to them.

Tom Padia provided an overview of the staff report. The report is available here:

[PC-RB-Committee-Meeting-Time-10-12-17.pdf](#)

The Board by consensus decided to leave the meeting time at 4:00 pm.

VII. OTHER PUBLIC INPUT

Joshua Perez thanked the Board for the opportunity to attend the Board meetings to learn and share information.

VIII. COMMUNICATIONS/MEMBER COMMENTS

There was none.

IX. ADJOURNMENT

The meeting adjourned at 5:15 p.m.



The Fixit Clinic is a troubleshooting and discovery workshop staffed by volunteers who help people get their broken things working.

The clinics provide work space, specialty tools, and guidance from coaches. Formed by Peter Mui, an Alameda County resident.

StopWaste has awarded Fixit Clinic two \$5,000 mini grants to expand the number of coaches and clinics held in Alameda County.

Over the two-year period:

31
CLINICS

631
PARTICIPANTS

70%
SUCCESS
RATE

“ Ultimately, the goal is to get to the place where the difference between a Fixit Coach and a participant is blurred and everyone’s just helping everyone else out. ”

- Fixit Clinic Volunteer



Typical repairs include small home appliances, computers, toys, sewing machines, bicycles, fabric items, lawn equipment, stereos, etc.

For more information or to hold an event in your area, contact the Fixit Clinic at: fixitclinic@gmail.com



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2017 - ALAMEDA COUNTY RECYCLING BOARD ATTENDANCE

	J	F	M	A	M	J	J	A	S	O	N	D
REGULAR MEMBERS												
A. Alonzo	X	X	X	X	X	X	X	X	X	X		
B. Camara	X	X	X	X	X	X	X	A	X	X		
P. Maass	X	X	X	X	X	X	I	X	X	X		
D. Martinez	X	X	X	X	X	X	X	I	X	X		
J. Moore	X	X	X	A	X	X	X	X	X	X		
J. Oddie	X	X	X	X	X	X	X	X	X	X		
M. Peltz	X	X	X	A	X	X	X	X	X	A		
J. Pentin	X	I	X	A	X	I	X	I	X	A		
T. Rood	X	X	X	X	X	X	X	X	X	X		
S. Sherman	X	X	I	X	X	X	X	X	X			
T. Stein	X	X	A	X	X	X	X	X	X	X		
S. Vared										X		
INTERIM APPOINTEES												
D. Biddle		X				X	X	X				
M. Southworth			X									
Shelia Young								X				

Measure D: Subsection 64.130, F: Recycling Board members shall attend at least three fourths (3/4) of the regular meetings within a given calendar year. At such time, as a member has been absent from more than one fourth (1/4) of the regular meetings in a calendar year, or from two (2) consecutive such meetings, her or his seat on the Recycling Board shall be considered vacant.

X=Attended

A=Absent

I=Absent - Interim Appointed

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DATE: November 9, 2017

TO: Recycling Board

FROM: Tom Padia, Deputy Executive Director

SUBJECT: Written Reports of Ex Parte Communications

BACKGROUND

Section 64.130 (Q)(1)(b) of the Alameda County Charter requires that full written disclosure of ex parte communications be entered in the Recycling Board's official record. At the June 19, 1991 meeting of the Recycling Board, the Board approved the recommendation of Legal Counsel that such reports be placed on the consent calendar as a way of entering them into the Board's official record. The Board at that time also requested that staff develop a standard form for the reporting of such communications. A standard form for the reporting of ex parte communications has since been developed and distributed to Board members.

At the December 9, 1999 meeting of the Recycling Board, the Board adopted the following language:

Ex parte communication report forms should be submitted only for ex parte communications that are made after the matter has been put on the Recycling Board's agenda, giving as much public notice as possible.

Per the previously adopted policy, all such reports received will be placed on the consent calendar of the next regularly scheduled Recycling Board meeting.

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DATE: November 9, 2017

TO: Planning Committee/Recycling Board

FROM: Tom Padia, Deputy Director

BY: Meghan Starkey, Senior Program Manager

SUBJECT: Municipal Panel: Franchise Contracts for Waste, Recycling and Organics Services

SUMMARY

Several times a year, staff assembles a panel of representatives from the member agencies to speak on a topic previously selected by the Recycling Board. The topic for the November Municipal Panel is franchise contracts for solid waste services. Representatives from Fremont, Livermore and Oakland will share their experiences and insights on the opportunities and challenges of selecting service providers and managing contracts for solid waste, recycling and organics services.

DISCUSSION

Contracts for solid waste, recycling and organics services are singularly important in a community's ability to implement waste reduction programs and comply with state laws regarding waste diversion and the Recycling Board's mandates. At the same time, they are enormously complex documents, covering such topics as:

- Specifics of collection and processing services by sector, including single family, multifamily, commercial, construction and demolition debris, drop boxes, bulky pickup, municipal services and/or schools services.
- Rates, including any diversion incentives for customers and periodic rate adjustment and review mechanisms.
- Diversion requirements, including performance standards tied to compensation.
- Other charges and fees, including provisions for funding services such as public education, street sweeping and litter collection.
- Reporting, record keeping, billing and remittance provisions.
- Labor requirements, such as living wage and pay adjustments for provider's employees.
- Indemnification, insurance, dispute resolution breach, default, remedies and other terms suitable for contracts of this size for essential city services.

Once a contract is approved by elected officials, solid waste or environmental staff are responsible for monitoring contractor performance and implementing provisions of the contract. The members of this panel work directly with their service providers on contract compliance.

At the meeting, the city representatives will highlight key provisions of their contracts and current issues facing city staff.

Additional information about contracts are provided in Appendix A.

RECOMMENDATION

This item is for information only.

Attachment A: Franchise Contract Information

Appendix A

Franchise Contract Information

City of Fremont

	Garbage	Recycling	Organics
Hauler	Republic Services	Republic Services	Republic Services
Transfer Station	Fremont TS/BLT	Fremont TS/BLT MRF	
Processor/Landfill	Altamont		Newby Island
Annual Tons	114,000	31,000	33,000

City of Livermore

	Garbage	Recycling	Organics
Hauler	Livermore Sanitation	Livermore Sanitation	Livermore Sanitation
Transfer Station		Livermore Direct	Livermore Direct
Processor/Landfill	Vasco	Aladdin Ave.	Blossom Valley
Annual Tons	44,000	20,000	22,000

City of Oakland

	Garbage	Recycling	Organics
Hauler	Waste Management	CWS – residential Commercial - open	Waste Management
Transfer Station	Davis St.		Davis St.
Processor/Landfill	Altamont	CWS	Redwood (current); Altamont CASP (future)
Annual Tons			

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DATE: November 9, 2017

TO: Planning Committee/Recycling Board

FROM: Tom Padia, Deputy Executive Director

BY: Rachel Balsley, Senior Program Manager

SUBJECT: Mandatory Recycling Ordinance Project Update

SUMMARY

This memo provides an update of the Mandatory Recycling Ordinance (MRO) and highlights some of the progress through Fiscal Year 2016-17. Enforcement and technical assistance activities work in tandem to increase the diversion of readily recyclable and compostable materials from the commercial and multi-family sectors. Staff will also share a presentation at the November 9, 2017 Programs & Administration meeting.

DISCUSSION

Enforcement Overview

The Alameda County Waste Management Authority (WMA) adopted Ordinance 2012-01, the Mandatory Recycling Ordinance, in January 2012. Phase 1 was effective July 1, 2012, with recycling requirements for commercial accounts with four or more cubic yards of weekly garbage service and multi-family properties. Phase 2 started July 1, 2014 in participating jurisdictions¹, adding discarded food and compostable paper to the list of covered materials and expanding to all businesses.

The MRO website, www.RecyclingRulesAC.org, provides detailed information about the requirements, support materials and tools to assist in compliance, and online request forms for technical assistance, free indoor food scrap bins, and stickers for indoor containers.

The WMA has a routine inspection program with progressive enforcement, meaning regulated parties receive two notices before a citation (and fine) is issued:

- Official Notification Letter – officially informs covered accounts of the ordinance requirements; may or may not be the result of an observed violation
- Notice of Violation/Warning Letter – sent after an official notification has been issued, and upon observation of a violation

Before a citation is issued, it is reviewed and approved by the member agency's Primary Enforcement

¹ Member Agencies were given the option to opt-out or delay aspects of each Ordinance phase.

Representative. Fines range from \$100 to \$150 per violation for the first citation. Fine amounts increase on subsequent citations at the same account within 12 months.

The WMA has prioritized enforcement of commercial accounts with one or more cubic yard of weekly garbage service, about 70% of covered commercial accounts. Smaller commercial accounts (garbage *cart* customers) are not currently being inspected. Accounts with consecutive compliant inspections receive inspections less frequently than accounts found in violation of the ordinance, freeing up inspection resources for non-compliant accounts.

At this time, multi-family accounts are only inspected upon receipt of an official complaint from a tenant. An online form is used to inform the WMA of sites not providing recycling and/or organics collection service to residents. In some cases, an inspection may also occur at a multi-family site when the site type is misclassified in the data received from franchised haulers. Note: a significant number of multi-family accounts received on-site inspections in 2013 and 2014.

Ordinance 2008-01, the Plant Debris Landfill Ban, is enforced in conjunction with the MRO.

Technical Assistance (TA) Overview

The WMA contracts with Cascadia Consulting Group to provide technical assistance to businesses and multi-family properties focused primarily on compliance with the MRO. Properties may directly request assistance through the ordinance help line, website, or Free Indoor Food Scrap Bin program. In addition, the TA team proactively contacts many businesses after they violate the Ordinance to offer compliance assistance.

Participating properties are offered free:

- On-site waste assessments with customized reports including recommended service levels and cost estimates (often resulting in a cost savings)
- Coordination with service providers to order new recycling or organics collection service
- Staff trainings and support setting up indoor recycling and/or organics stations, and
- Follow-up assistance and trouble-shooting, if needed, after new services are implemented

Cascadia technical assistance representatives are assigned to specific member agencies to foster continuity within a jurisdiction, knowledge of local rates and services, and maintain relationships with hauler and member agency staff.

In addition to direct technical assistance, the Agency offered free *indoor* organics bins valued up to \$500 per approved business or multi-family site. Property owners/managers complete a simple online application, and if approved, select green containers from a variety of options from one of the WMA's partner vendors. Free stickers are also available to label indoor containers.

Highlights from Fiscal Year 2016/17

Expanded ordinance requirements in five jurisdictions

In FY 2016/17, new MRO requirements went into effect in Hayward, Oakland, Oro Loma Sanitary

District, Pleasanton, and San Leandro. Outreach activities, such as direct mail and communication through business associations were conducted in those member agencies. Outreach in Fremont also began in preparation of new organics requirements effective July 1, 2017. Regulated parties are given six months to comply before enforcement actions begin on new requirements.

Conducted over 14,000 on-site inspections

The WMA conducted over 14,000 inspections in FY 2016/17 with three full-time contracted inspectors. A breakdown of MRO commercial covered accounts and enforcement activities conducted in FY 16/17 by member agency is included in Table 1 below.

Table 1: Commercial Sector Enforcement Activities by Member Agency in FY 16/17

Member Agency*	# of Covered Accounts	# of Accounts in Inspection Pool**	# of Accounts Inspected	# of Accts Sent Notifications and/or Warnings for Violations	# of Accounts Sent Citations
Alameda	809	479	399	24	8
Alameda County	150	139	99	13	1
Albany	295	141	123	6	0
Berkeley***	436	427	230	11	2
Castro Valley SD	519	212	272	9	6
Emeryville	389	309	243	10	4
Fremont	2,229	1,913	1,587	196	54
Hayward	3,438	2,578	2,133	288	11
Livermore	1,257	1,089	947	77	20
Newark	540	494	415	103	6
Oakland	5,786	3,805	2,954	612	81
Oro Loma SD	540	461	368	76	7
Piedmont	27	16	19	0	0
Pleasanton***	342	342	273	28	25
San Leandro	1,240	954	834	135	18
Union City***	242	242	201	16	4
Grand Total	18,239	13,601	11,097****	1,604	247
%		75% of covered	82% of pool	12% of pool	1.8% of pool

*The City of Dublin is opted-out of the MRO. **Accounts with one or more cubic yard of weekly garbage service are in the inspection pool. ***The Cities of Berkeley, Pleasanton, and Union City only had accounts with 4 or more cubic yards of weekly garbage service in FY 16/17. ****The total number of accounts inspected is lower than the total number of inspections conducted because some accounts were inspected more than once.

The MRO is effective at motivating businesses to recycle

Most violations are issued to accounts for not having recycling service and for disposing recyclable materials in the garbage. Approximately 70% of accounts that received an enforcement letter as the result of violations are found compliant at their next inspection. The percent of commercial garbage accounts with some level of recycling service in most member agencies is 70 to 96% compared to 20 to 82% in 2011, prior to implementation of the MRO.

Organics violations are an increasing focus area

While all commercial accounts are assumed to need recycling service, only those that generate significant quantities of organics (as observed in the garbage) are given a violation for lack of organics service. Significant quantity is currently defined as 20 gallons in a garbage bin. As enforcement of organics requirements is effective at more accounts, the number of violations issued for organics-related violations is increasing. The MRO supports the WMA's (and the state's) focus on reducing disposal of organics in landfill.

Enforcement is progressing to the citation stage

The first citations for MRO violation were issued in August 2015. Since then through FY 16/17, 496 citations have been issued to 382 accounts (some accounts have received multiple citations). This equates to approximately 3% of the covered commercial accounts in the inspection pool. Five citations have been appealed by the cited parties and all have been upheld.

The TA team documented new recycling and/or organics service at 126 accounts

As a result of MRO technical assistance, the TA team documented 126 services changes to start or expand recycling and/or organics collection programs. These service changes resulted in approximately 5,693 cubic yards or 528 tons of new diversion in FY 2016-17, which takes into account when in the year the service started. This equates to approximately 9,000 cubic yards of new diversion per year. Nearly half (48%) of the service changes resulted in a cost savings, while 34% resulted in an increased garbage bill, and 18% had no change in cost.

Adding collection service is only one aspect of technical assistance

As the ordinance progresses, an increasing number of accounts assisted by the TA team already have the appropriate services in place, but need support to improve their programs. In these cases, trainings, indoor containers, and/or color-coded signage and stickers are provided. Table 2 below provides information about technical assistance activities performed in FY 16/17.

Table 2: Technical Assistance Activities in FY 16/17

Member Agency*	# of Accounts Contacted	# of Commercial Accounts Assisted	# of Multi-family Accounts Assisted	# of Site Visits
Alameda	41	32	2	11
Alameda County	7	4	0	0
Albany	12	9	0	3
Berkeley	48	42	3	12
Castro Valley SD	15	11	0	2
Emeryville	18	10	0	2
Fremont	98	78	2	38
Hayward	147	109	3	28
Livermore**	1	0	0	0
Newark	44	34	0	10
Oakland	450	312	24	134
Oro Loma SD	69	46	4	24
Piedmont	0	0	0	0
Pleasanton	82	64	5	34

San Leandro	136	98	2	35
Union City	7	7	0	2
Grand Total	1,176	857	45	335

*The City of Dublin is opted-out of the MRO and their franchised hauler provides technical assistance.

**Livermore Sanitation, Inc. provides all the technical assistance to Livermore accounts.

The Free Indoor Food Scrap Bin Program continues to be a popular service

A total of 916 sites were approved in FY 2016-17 to receive free indoor green bins. Of the approved sites, 631 completed the process and ordered equipment with an average order amount of \$348/site.

Some accounts get assistance elsewhere

In many member agencies, MRO technical assistance is provided via a combination of jurisdiction staff, hauler representatives, and the WMA's contracted TA representatives. Of the businesses that were contacted by Cascadia but declined assistance, approximately half informed the representative that they initiated compliance measures on their own and/or directly with their service provider after receiving communication about the MRO. The remaining half simply declined assistance or were non-responsive.

Additional details regarding technical assistance is in the StopWaste Business Assistance Program Fiscal Year 2016-17 Annual Report. A full copy of the report is available at: [Cascadia-FY16-17-Annual-Report.pdf](#).

Looking Ahead

MRO project implementation continues in 2017/18. Below are a few of the anticipated highlights:

Expanded Ordinance coverage

On January 1, 2018, Newark business and multi-family accounts will have new organics requirements and the City of Union City will begin implementing Phase 2. Outreach letters will be sent to inform account holders of the new requirements.

Multi-Family properties will receive Notice of Violation/Warning letters

In Winter FY 2017/18, the WMA plans to start mailing warning letters to multi-family accounts identified as not having recycling and/or organics collection service. Lack of service will be verified with franchised haulers prior to issuance of the letters. Multi-family properties may utilize new technical assistance options including resident education or door-to-door outreach.

New tools to assist properties with compliance

New and improved online tools were released in Q1 2017/18 to support businesses with ordinance compliance. The new Bags to Bins tool and enhanced Sign Maker tool are available on the ordinance website. New tools continue to be developed, including training videos.

RECOMMENDATION

This report is for information only.

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DATE: November 9, 2017

TO: Planning Committee/Recycling Board

FROM: Tom Padia, Deputy Executive Director

SUBJECT: Member Agency Conformance with “Adequate Commercial Recycling” Standard and Municipal Eligibility to Receive Measure D Per Capita Allocations

SUMMARY

In November of each of the past three years staff has provided the Recycling Board a status report of member agency compliance with the Adequate Commercial Recycling standard adopted by the Board. Currently, all member agencies are in compliance with the standard.

DISCUSSION

At the November 8, 2012 meeting the Recycling Board unanimously adopted a definition and process for assessing the existence of an “adequate commercial recycling program” for the purpose of determining municipal eligibility to receive per capita Recycling Fund monies (approximately \$4,400,000 per year total, allocated to 16 jurisdictions).

Policy Adopted November 2012

The adopted policy has a compliance requirement for recyclables and another one for organics. Each compliance requirement involves satisfying ONE (or more) of three criteria, on and after a date (See Attachment A).

If Recycling Board staff believes a member agency is not in compliance, it will notify the member agency and refer the situation to the Recycling Board for a decision. If the Recycling Board decides the member agency has not complied with the minimum standard, it may withhold future Measure D payments.

EXPERIENCE TO DATE

Recyclables: All jurisdictions currently comply with this standard

While Dublin has not opted in to the MRO, it has consistently met the third criteria of a greater than 50% participation rate in their commercial recycling program, which is an accepted criteria for adequate commercial recycling. Oro Loma and Castro Valley Sanitary Districts and the city of Pleasanton have all subsequently opted-in to both phases 1 and 2 of the MRO.

Organics: All jurisdictions currently satisfy this standard

Dublin is currently also the only member agency opted out of Phase 2 of the MRO. Alternative conformance with the Board eligibility requirements requires either enlisting over 50% of “high organics generating” accounts (HOGS) to commercial organics collection service (the third criteria) or spending three hours of commercial organics outreach per HOG account (the second criteria).

In Dublin more than 50% of the HOG accounts are currently subscribed to organics collection service.

RECOMMENDATION

This report is for information only.

ATTACHMENT A

Compliance Requirement for Recyclables and Organics

COMMERCIAL RECYCLABLES

An adequate commercial recycling program under the County Charter will satisfy ONE (or more) of these criteria on and after July 1, 2013 unless the Recycling Board adopts an alternative definition after that date.

1. The member agency participates in the ACWMA mandatory recycling ordinance, Phase 1. The Recycling Board has previously formally stated that participation in the ordinance is not necessary, but is more than adequate.

OR

2. The member agency ensures that at least one hour per year of technical assistance work time is actually provided to businesses to encourage and assist commercial accounts to recycle more. The minimum amount of time can be provided by member agency staff, franchised hauler staff, consultants to the member agency or franchised haulers, or any combination of these. The minimum time commitment will be proportional to the number of commercial accounts in the member agency. In addition, a member agency would need to either make source separated recycling services available at open market rates or adopt a rate schedule under which the prices per volume and frequency of source separated services are no higher than that for refuse/garbage service of the same volume and frequency. This second part of criteria 2 is necessary because technical assistance and outreach cannot increase recycling participation if the service is not available at a competitive price.

OR

3. The member agency achieves a 50% participation rate in its commercial recycling program. Participation for recycling shall be calculated as a percentage of total commercial accounts. Participation through centralized processing will count so long as the centralized processing facility meets the less than 10% covered materials residual quality standard defined in the mandatory recycling ordinance.

COMMERCIAL ORGANICS

An adequate commercial recycling program under the County Charter will satisfy ONE (or more) of these criteria on and after July 1, 2014 unless the Recycling Board adopts an alternative definition after that date.

1. The member agency participates in the ACWMA mandatory recycling ordinance, Phase 2 (or a variation on Phase 2 approved administratively as provided for in the ordinance). The Recycling Board has previously formally stated that participation in the ordinance is not necessary, but is more than adequate.

OR

2. The member agency ensures that at least 3 hours per year of technical assistance work time is actually provided to organics generating businesses to encourage and assist commercial

organics accounts to recycle more. The minimum amount of time can be provided by member agency staff, franchised hauler staff, consultants to the member agency or franchised haulers, or any combination of these. In addition, a member agency would need to either make source separated commercial organics services available at open market rates or adopt a rate schedule under which the prices per volume and frequency of source separated services are no higher than that for refuse/garbage service of the same volume and frequency. This second part of criteria 2 is necessary because technical assistance and outreach cannot increase recycling participation if the service is not available at a competitive price.

OR

3. The member agency achieves a 50% participation rate in its commercial organics program. Participation for commercial organics shall be calculated as a percentage of organics generating businesses based on SIC and/or NAICS codes. Participation through centralized processing will count so long as the centralized processing facility meets the less than 10% covered materials residual quality standard defined in the mandatory recycling ordinance.

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A truck dumps compost materials inside a receiving area at the Cedar Grove processing facility near Seattle, Washington. // Elaine Thompson/AP

How Much Food Do Cities Squander?

JESSICA LEIGH HESTER OCT 25, 2017

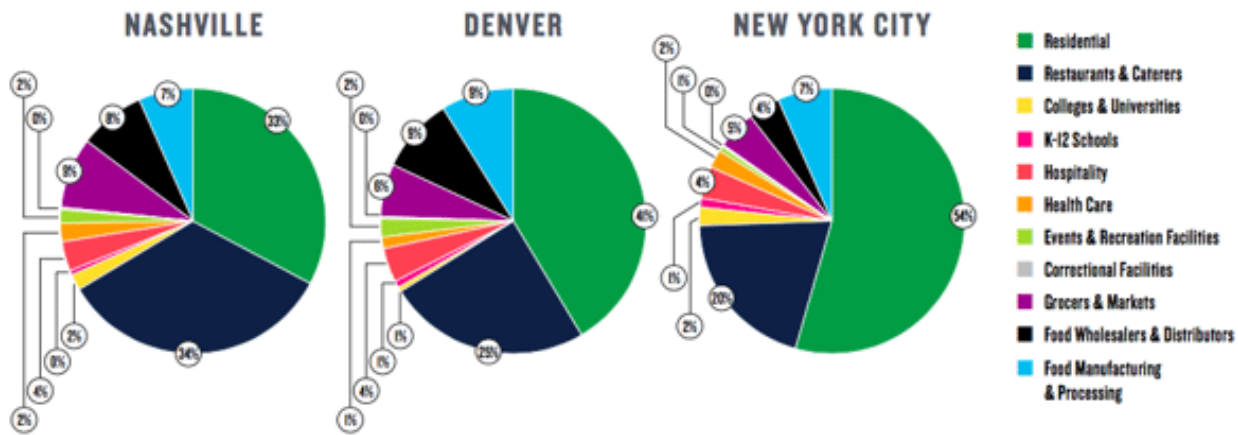
Researchers have unearthed the wasteful habits of households and businesses in Nashville, Denver, and New York—and created a blueprint for curbing them.

Last winter, teams of researchers in three U.S. cities donned goggles, gloves, and respirators, tore into bags of other people's household garbage, and then pawed through the contents. Separating slimy banana peels from clumps of coffee grounds was dirty work, but it had a laudable goal: trying to get a handle on how much food waste could have been consumed or diverted before winding its way into the waste stream with a one-way ticket to the dump.

The problems associated with urban food waste are no mystery. Proof of the problem is everywhere, in overflowing garbage bins and grime-slicked compost caddies. Food scraps contribute to the already sizable piles of refuse that cities must haul to landfills; shuttling edible castoffs to people in need requires labyrinthine routes and mind-boggling logistics; and gases released by decomposing leftovers detract from cities' work toward reining in emissions. But there's surprisingly little hard data about who's wasting what, and where, which makes it harder for cities to address the issue.

To sniff out specifics, the engineering company Tetra Tech (in collaboration with the Natural Resources Defense Council and the Rockefeller Foundation) recruited more than 1,151 residents in Denver, New York, and Nashville. Of these, 631 supplied qualitative info in the form of kitchen diaries noting what they tossed and why. Researchers also inspected the contents of 277 residential trash bins, and 145 containers of commercial or industrial garbage.

Now, the team has digested the data in a pair of reports, released today, that take stock of how food waste shakes out in these cities, and what they can do to clean up their act.



Proportion of wasted food by sector (NRDC)

The researchers divided trashed food into three categories: stuff that is typically edible, questionably edible (including peels and cores), and inedible (such as pits, bones, and egg shells). They then tallied up findings from the bin digs and kitchen diaries to gauge how much is going to waste in each city. In Denver and New York, residents trashed the majority of the wasted food; in Nashville, the residential and restaurant sectors were neck and neck.

Denverites trashed the most edible food—about 7.5 pounds per household each week—followed by New York (5.4 pounds) and then Nashville (4.6 pounds).

Overall, these sums are lower than previous estimates from ReFED, a consortium of food-centric organizations, which placed the weekly figure around 11.6 pounds per household.

Across all three cities, coffee and grounds were the goods most often pitched in the trash, trailed by bananas (in Nashville and New York) and chicken (in Denver). Apples, bread, oranges, and potatoes also topped the list, as did discarded dairy products.

TABLE II: TOTAL FOOD WASTED BY TYPE (INCLUDES TYPICALLY EDIBLE, QUESTIONABLY EDIBLE, AND INEDIBLE)			
RANK	NASHVILLE	DENVER	NYC
1	Coffee (including liquid coffee and grounds)	Coffee (including liquid coffee and grounds)	Coffee (including liquid coffee and grounds)
2	Banana	Chicken	Banana
3	Chicken	Milk	Chicken
4	Egg	Banana	Orange
5	Milk	Bread	Apple
6	Apple	Potato	Potato
7	Bread	Apple	Bread
8	Squash	Egg	Soup
9	Sauce (various condiments and sauces)	Soup	Milk
10	Potato	Pork	Rice

Types of food wasted by city. (NRDC)

In the accompanying kitchen diaries, respondents described why they opted to jettison these scraps. Forty-four percent of participants said they were getting rid of inedible portions; 20 percent reported moldy or spoiled food, and 11 percent indicated they weren't interested in the leftovers. Only 4 percent of residents noted that they'd discarded food because it was past the date printed on the label, though perceived confusion over inscrutable labeling practices has spurred legislation to standardize and streamline "best by" and "use by" language.

The reports also qualified attitudes toward waste. Most respondents preferred fruit without blemishes; still, more than half of the respondents said they "always" or "mostly" excised bruised portions and salvaged the rest of the fruit or vegetable. And though some indicated that squandering food felt morally icky, 58 percent of the respondents indicated less guilt about wasting food if they knew it was going to be composted.

Judging by the kitchen diaries, though, most of the trashed food didn't end up in the compost bin—53 percent went straight to the trash. In New York, which has a comparatively robust organics scheme, 37 percent of the self-reported discards ended up in the green bin. In Denver and Nashville, this figure was 24 percent and 28 percent, respectively, though respondents in Denver reported the highest rate of compost participation.

The researchers flag that discrepancy, among other sticking points: At least in New York City, they found that participating in a compost program led to more overall waste, compared with families whose garbage all goes into a single stream. In other words: Compost-happy residents were disposing of more total scraps than residents who just threw the whole lot in the trash. To counter that trend, the report's authors recommend reminding consumers that "preventing food waste is preferable to composting it."

Recommended



Is Garbage a Product of Bad Design?

JESSICA
LEIGH
HESTER
OCT 19,
2017



The Wisdom of Garbage

JESSICA
LEIGH
HESTER
FEB 15,
2017



Saving Your Home From Food Waste, One Graying Avocado at a Time

JESSICA
LEIGH
HESTER
AUG 23,
2017

All this surplus food could be put to better use. "An outrageous amount of food is wasted in our cities, yet at the same time many residents are in need," said Dana Gunders, a senior scientist at NRDC, in a statement. The other new report documents the ways that cities can push back against hunger and food insecurity, which continue to nag cities, suburbs, and rural regions despite the excess of edible food. Some 13.4 percent of Tennessee residents are food insecure, according to a 2016 report from the USDA. Across New York State, that figure is 12.5 percent; in Colorado, 10.3 percent of citizens struggle to reliably access nutritious food.

The NRDC researchers compared current food rescue rates in the three cities to the maximum volume that could be intercepted, and found that it's feasible to recoup tens of thousands of tons of packaged, raw, or prepared items across the board, from grocery stores, restaurants, caterers, coffee shops, schools, and more. In Denver, where 2,539 tons of food is currently rescued along the food chain, the researchers pinpoint an additional untapped potential of 4,232 tons—enough for about 7.1 million meals. These could go a long way in a city where nearly about 13 percent of residents lack reliable access to nutritious food.

But that goal is a lofty one: It assumes that all of the local businesses and institutions will buy in. The researchers also spooled up a less ambitious projection, in which participation rates are more modestly scaled up from their current numbers. That model would still translate to 901 tons of food, or 1.5 million meals—but it could require an infusion of \$2 million to cover the cost of vehicles and storage space to accommodate the haul.

More than a prescription, the research is a starting point. “As more research in this vein is conducted, it will be easier to identify trends and potentially aggregate data for better extrapolation, better intervention design—and eventually, less wasted food,” the authors note. Urban areas can carry this charge, Gunders told me last year. “Cities can be setting targets in their community, and elevating the profile of the issue and raising awareness,” she said. “That’s a nice foundation. They can take a look at their waste policies.”

Cities can also redesign trash management from the ground up. As I wrote last week, a band of architects in New York, backed by the Center for Architecture and the Rockefeller Foundation, laid out a series of design guidelines that approach trash as a design issue, and turn to clever planning and ingenious interiors to help alleviate the burden while getting the city closer to Mayor Bill de Blasio’s goal of schlepping zero waste to landfills by 2030. That call for better engineering is echoed in some of the qualitative feedback in the NRDC reports. When asked what sorts of steps they hope their cities will take, most respondents gestured toward expanded compost programs or beefed-up public service campaigns.

Others asked for more options, arrayed in a smarter and more durable way. “Make it easier to compost and recycle,” one participant wrote. “Like many NYCers, I live in a small place and mice and cockroaches come up often. That means we keep our trash on a specific counter. Since we have to already split up our paper recycling, and have trash, there is no room for four bins!!! When we lived in San Francisco and we could throw all recycling in one bin, we composted a lot more often.”

Far from being a luxury, “design thinking is something people should demand from cities, architects, and supers,” said Benjamin Prosky, executive director of the Center for Architecture, at an event announcing the waste-reduction blueprint. Collecting, digesting, and acting upon ever-more-precise data can only sharpen its focus and impact.

About the Author



Jessica Leigh Hester

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OPINION

Are the packaging wars coming to California?

By Charles White • Nov. 1, 2017

Editor's Note: This piece was written by Charles A. White, a senior advisor in the Sacramento office of Manatt, Phelps & Phillips, LLP. The opinions represented in this piece are independent of Waste Dive's views.

The state of California potentially is embarking on a mandatory comprehensive program to address packaging waste. This is in line with what some other national, regional and local governments are considering for their respective jurisdictions. The European Union, many Canadian provinces, China, India and the state of Connecticut — to name just a few — have adopted regulatory programs to manage and reduce packaging waste.

Retailers and manufacturers are also playing an important role by seeking to replace excessive packaging with more lightweight, less expensive and reusable packaging designs. Many manufacturers and retailers are working cooperatively — and voluntarily — with government and other stakeholders to minimize the impacts of packaging waste.

To build on voluntary industry efforts, the California Department of Resources Recycling and Recovery (CalRecycle) launched a "Manufacturers Challenge" in 2015. CalRecycle challenged product manufacturers and brand owners — on a collective basis, not on an individual company level — to voluntarily achieve a 50% reduction in packaging disposed in landfills in California by 2020. In CalRecycle's view, the packaging industry failed to organize and respond sufficiently to this challenge. CalRecycle currently views the voluntary efforts of the packaging industry as insufficient to reduce landfill disposal of packaging waste and to achieve California's stated recycling goals.

What's the problem?

The principal driver of CalRecycle's efforts to address packaging waste is legislation (AB 341, Chesbro) that established a statewide, mandatory commercial waste recycling program in 2011. Virtually all commercial enterprises generating more than 4 cubic yards of waste and recyclables per week will ultimately be required to recycle or use recycling services. In addition, this legislation also set a goal of achieving a statewide 75% waste diversion rate by 2020. CalRecycle is now using this stated goal as legislative direction to consider additional comprehensive mandatory regulatory programs to achieve 75% recycling. At present, CalRecycle does not have legislative authority to implement the additional comprehensive mandatory regulatory programs the organization believes may be needed to achieve this goal.

According to the report, the current system by which we produce, use and dispose of plastics has significant drawbacks: Plastic packaging material is typically used only once, resulting in lost value of \$80 billion to \$120 billion each year.

Although there is support from many environmental groups and local governments for further mandatory programs to reduce packaging waste, there is also growing concern about the nature and scope of such potential future measures. CalRecycle held a workshop on Oct. 10, 2017, in Sacramento, at which it was unable to clearly articulate an overarching need to protect the environment from packaging waste that would warrant additional comprehensive mandatory controls — a point that highlighted the complexities of implementing such a program.

From CalRecycle's perspective, AB 341 establishing the so-called goal of 75% recycling appears to be the principal driver. Further, at this workshop, CalRecycle acknowledged that the amount of

packaging waste in the overall disposal stream actually decreased from 9.5 million tons in 2008 to 8 million tons in 2014 — a decline of 17% over this six-year period. This is most likely due to increased efforts by the packaging industry to reduce the amount of packaging being used, as well as efforts by consumers, local government and recycling service providers to step up their efforts to recycle packaging waste. If these efforts are working, albeit at a modest pace, is there a need to pursue anything more?


Litter, stormwater and marine debris

Despite the efforts of manufacturers, retailers, consumers, local government and recycling service providers, excess packaging is often mismanaged by consumers — ending up as litter that degrades our environment and harms our waterways and oceans (see below). For example, a report released in 2016 by the World Economic Forum (WEF) details the extent of the plastics packaging problem worldwide. The report, "The New Plastics Economy: Rethinking the Future of Plastics," provides a vision of a global economy in which plastics never become waste and are continuously recycled. According to the report, the current system by which we produce, use and dispose of plastics has significant drawbacks: Plastic packaging material is typically used only once, resulting in lost value of \$80 billion to \$120 billion each year. Aside from the financial cost, the report asserts that remaining on the current track means that by 2050, oceans are expected to contain more plastics than fish by weight.

In a draft report expected to be finalized by early 2018, the State of California Ocean Protection Council, with the support of the California Natural Resources Agency, will likely make two priority policy recommendations for legislative action in the upcoming years — prohibiting single use products if a feasible, less damaging alternative is available and requiring the phaseout of single-use products, like convenience food and beverage packaging, from public institutions and facilities.

It is clear that the management of single-use materials (including packaging) that are easily discarded will be a subject of continuing rigorous debate in California in the upcoming months.

Also, in response to the concerns over packaging waste and other waste materials being dispersed into the environment, the California State Water Resources Control Board (SWRCB) and many of the nine Regional Water Quality Control Boards (RWQCBs) have adopted trash control policies. On April 7, 2015, the SWRCB adopted policies to limit the amount of trash discharged to the ocean waters of California (Ocean Plan) and to the state's inland surface waters, enclosed bays and estuaries (ISWEBE Plan). Together, these are collectively referred to as "the Trash Amendments."



Most local governments recognize that taking responsibility for reducing trash in waterways will be an extremely expensive undertaking, so they are looking at ways to shift some of this cost to other parties — such as the manufacturers, distributors, and retailers of trash and packaging materials that are discarded and discharged to waterways.

The objective of the Trash Amendments is to provide statewide consistency for the SWRCB's regulatory approach to protecting aquatic life and public health beneficial uses, and reducing environmental issues associated with trash in state waters, while focusing limited resources on high-trash-generating areas. Although trash is a broad, generic category of materials, packaging waste is a major part of the problem. The Trash Amendments essentially place an absolute prohibition on the discharge of trash to stormwaters of the state. The Trash Amendments also provide a framework for implementing their provisions that would be incorporated into the stormwater and waste discharge permits issued by the state and regional boards. The stormwater discharge permit categories include municipal systems, state highways, industrial sites and construction sites. Municipal permit holders must be in full compliance with the Trash Amendments within ten years of the first implementing

permit and 15 years after the effective date of the Trash Amendments.

California local governments are responding to the Trash Amendments in a variety of ways. Most local governments recognize that taking responsibility for reducing trash in waterways will be an extremely expensive undertaking, so they are looking at ways to shift some of this cost to other parties — such as the manufacturers, distributors, and retailers of trash and packaging materials that are discarded and discharged to waterways. Industry, on the other hand, is quick to point out that these discharges are the result of individuals improperly discarding these waste materials — and thus that businesses should not be held fully responsible.

Local governments are beginning to address this challenge. In one recent example, California legislation was enacted (AB 1180, Holden, 2017) that authorizes the Los Angeles County Flood Control District to levy a tax, fee, or charge to pay the expenses of carrying out projects and programs to reduce stormwater and urban runoff pollution in the district. The fee payers likely will include a mix of residents, retail stores and commercial enterprises. In fact, something like a previous, unsuccessful effort by Los Angeles County, which based a proposed fee on the amount of stormwater runoff from each parcel in the county, may emerge out of the new authority granted in AB 1180. This type of program could go a long way toward reducing the amount of trash pollution entering the waters of the state — but will it be enough?

Is packaging waste in a landfill really a problem?

Of course, there is also the concern about using landfills to manage packaging waste. The efforts of CalRecycle to consider comprehensive mandatory packaging regulatory strategies appear driven almost entirely by concerns over packaging waste disposal in landfills. CalRecycle is appropriately focusing on the landfill disposal of food waste, a significant source of landfill methane emissions.

Even if a landfill provides a safe repository for packaging waste, it makes little sense to fill up a landfill with packaging waste that has a worldwide estimated discarded value of \$80 billion to \$120 billion each year. However, given the choice of dispersing packaging waste into the environment, waterways and oceans, putting these materials in well-designed landfills would certainly seem to be a better option. Restrictions on landfill disposal of packaging waste could lead to increased disposal into the environment. But is there a better way?

Energy recovery is largely absent from California's version of the waste hierarchy. Only very limited energy recovery options are allowed for waste and waste residuals in California, due to concerns over toxic emissions resulting from the combustion of solid waste. The traditional waste hierarchy however, neglects an even lower level of waste management (or rather, mismanagement): uncontrolled dispersion into the environment. An example of this is when a waste material is discarded as litter and ultimately washed away by stormwater and discharged to the ocean. In recognition of this last, unspoken tier, land disposal and energy recovery (as a low-carbon fuel) should be seen as better alternatives.

One of California's cutting-edge environmental programs is the Low Carbon Fuel Standard (LCFS) managed by the California Air Resources Board (CARB). This program is fuel neutral, focusing entirely on the life cycle "carbon intensity" of various fuels. Studies have shown that converting solid waste (including packaging waste) to fuel can produce some of the lowest-carbon fuels. Recent work by the provincial government of British Columbia suggests that a substantially negative-carbon-intensity fuel can be produced from residual solid waste using conversion technologies.

Are there markets for California's recycled packaging waste?

Currently, California is highly dependent on other jurisdictions and countries to manufacture new products from its recycled waste materials, including packaging waste. Historically,

according to CalRecycle, most of what is collected in California's recycle bins is exported, with most going to China.

China has been in the news recently for its new import policies, which have virtually stopped all imports of packaging waste. Much of California's (and the rest of the world's) packaging waste shipments are being held up by such programs in China. California typically regulates recycled materials as being exempt from solid waste laws if they contain less than 10% contamination by weight. China's policy, however, now restricts imports of waste-derived materials that contain more than 0.3% contamination.

The challenge facing California and other jurisdictions that export recycled material is whether internal markets for the use of recycled materials can be developed. Most observers think this is possible, but it will not happen overnight — certainly not by 2020 — and will be very expensive.

What is CalRecycle up to now?

California enjoys a reputation of being a bellwether state with respect to a wide variety of programs and policies. The new CalRecycle packaging waste initiative is no different. CalRecycle is the lead California regulatory agency considering the need to develop comprehensive mandatory programs to directly regulate packaging waste.

According to CalRecycle, although (as pointed out above) the total amount of packaging waste disposed in California landfills decreased by 17% from 2008 to 2014, one-third of the 66 million tons of solid waste generated by Californians each year is packaging. Of the amount that is not recycled but is disposed of in landfills, approximately one-quarter of the 43 million tons of waste disposal in California is packaging waste.

In order to meet the statewide goal of 75% reduction of solid waste disposal by 2020, 24 million tons of solid waste will have to be reduced, recycled or composted. Assuming it would cost only an additional \$50 per ton to achieve this goal, the new

annual cost reaches over \$1 billion per year. Other estimates put this price tag much higher.

To identify priority packaging that is to be targeted by this initiative, CalRecycle is considering the following factors: Prevalence in the disposed waste stream, usage trends, current collection infrastructure, current processing infrastructure, greenhouse gas impacts of recycling, and waterway and marine debris.

Of the above factors, the only ones that can be directly linked to the protection of human health, public safety and the environment are the last two: marginal GHG impacts, if any, and waterway and marine debris.

Thus far, CalRecycle has identified several priority packaging materials for potential future regulatory action; these fall into two broad categories: fiber and plastic. One of the challenges facing CalRecycle will be determining the specific definitions used to target the potential priority packaging, including uncoated corrugated cardboard, waxed cardboard, film plastic, EPS and plastic drink pouches. All these packaging types are hard to specifically define and to differentiate from other nonpackaging applications.

The next stage in CalRecycle's process will be to identify and propose regulatory strategies that would be applied to these packaging material types. It is unlikely that CalRecycle would recommend only a single regulatory strategy, as all the materials involve different uses and characteristics.

Are there other policy models to consider?

Many observers are questioning CalRecycle's apparent focus on a limited range of models that utilize command-and-control strategies or direct market intervention mechanisms. One alternative concept would be to consider a sustainable materials management (SMM) policy — such as the one described by the USEPA, which is currently being pursued by the state of Oregon.

As described by the USEPA, SMM is a systemic approach to using and reusing materials more productively over their entire life cycle. It represents a change in how our society thinks about the use of natural resources and environmental protection. By examining how materials are used throughout their life cycle, an SMM approach seeks to:

- Use materials in the most productive way, with an emphasis on using less.
- Reduce toxic chemicals and environmental impacts throughout the material's life cycle.
- Assure we have sufficient resources to meet today's needs and those of the future.

Oregon's approach is oriented toward collaboration and developing partnerships with all stakeholders rather than sweeping command-and-control regulations. Oregon believes coordination throughout the life cycle of materials and products will support innovative solutions, through partnerships with other state agencies, businesses, local governments and nongovernmental organizations.

Where do we go from here?

CalRecycle is expected to finalize its recommendations for a packaging policy model in early 2018, at the beginning of the final year of California's current two-year legislative session. As previously noted, CalRecycle does not currently have the regulatory authority to implement many of the policy models it seems to be leaning toward. It is widely expected, however, that legislation will be introduced that authorizes CalRecycle to implement its packaging policy recommendations. The options facing the legislature are many, but the key options appear to be either implementing regulatory measures for each priority packaging type or reconsidering the need for further legislative and regulatory action. There are a few concerns that could drive that reconsideration, including the feasibility of a 75% recycling goal by 2020; the impacts of China's import policies; and whether further evaluation of the potential to produce low-carbon fuel from waste residuals is necessary.

Regardless of the eventual outcome, it is safe to say that the next few months are likely to see heated discussion of these issues. One can hope that common sense will prevail — and the "Packaging Wars" will be averted.