



CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY

VICE CHAIR – MICHAEL RANALLI, EL DORADO COUNTY

EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)

TAG CHAIR – RACHEL ROSS, TEHAMA COUNTY

TAG VICE CHAIR – JIM MCHARGUE, AMADOR COUNTY

PROGRAM MANAGER – MARY PITTO

**Rural Counties' Environmental Services Joint Powers Authority
Board of Directors' & Technical Advisory Meeting
1215 K Street, Suite 1650 Conference Room
Sacramento, CA**

Thursday, October 18, 2018 9:00 a.m. – 3:00 p.m.

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

II. Business Matters

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Discussion and possible action related to the following:

- A. Approval of Minutes from the Meeting of August 16, 2018 – Supervisor Kobseff, ESJPA Chair *(to be sent under separate cover)*
- B. Review and approval of the 2019 Meeting Schedule – Mary Pitto, ESJPA Program Manager *(pp 3-4; 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

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- A. Food Waste Management – Michael Koewler, President of Sacramento Rendering and Dennis Albiani, California Advocates *(20 minutes)*
- B. Revised AB 901 Regulations – Steven Sander, Environmental Scientist, CalRecycle *(pp 7-10; 30 minutes)*
- C. South Lake Refuse & Recycling Compost Facility Expansion to Comply with AB1383 and CalRecycle Organics Grant Program – Lars Ewing, Public Works Director, Lake County *(20 minutes)*
- D. Report from CalRecycle – Carol Mortensen, Supervisor, 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 – Paul Smith, Vice President of Government Affairs (15 minutes)

- A. Complete Text of Selected Bills
- B. Summary Listing of All Solid Waste Related Bills

VI. Member County Concerns/Comments

VII. Solid Waste/Regulatory Update

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Discussion and possible action related to the following:

A. CalRecycle

- SB 1383 Regulations and AB 1826 – Mary Pitto, Program Manager (pp 13-22; 5 minutes)
- AB 901 Recycling and Disposal Reporting Regulations – Larry Sweetser, ESJPA Consultant (5 minutes)
- CalRecycle/ARB/CAPCOA Composting in California Whitepaper – Larry Sweetser (pp 23-27; 5 minutes)
- Covered Electronics Waste - Larry Sweetser (5 minutes)

B. State Water Resources Control Board

- Waste Discharge Permit Fees – Larry Sweetser (pp 29-42; 5 minutes)
- Statewide Industrial General Storm Water Permit - Larry Sweetser (pp 43-64; 5 minutes)

C. Department of Toxic Substances Control

- Update on Photovoltaic Modules/Solar panels – Larry Sweetser (page 65; 5 minutes)
- Electronic Hazardous Waste Manifest – Larry Sweetser (5 minutes)
- Universal Waste Inspections – Larry Sweetser (10 minutes)

D. Extended Producer Responsibility

- CA Product Stewardship Council Update – Doug Kobold, Executive Director, CPSC (pp 67-74; 5 minutes)
- Carpet America Recovery Effort (CARE) Update – Lisa Mekis, CA Senior Associate, CARE (pp 75-88; 10 minutes)
- PaintCare Update – Daria Kent, Northern California Regional Coordinator, PaintCare (5 minutes)
- Mattress Recycling Council Update – Liz Wagner, CA Territory Representative, MRC (pp 81-92; 5 minutes)

E. Grant Program Update – Larry Sweetser (5 minutes)

F. Highlights of August/September/October CalRecycle Meetings – Larry Sweetser (pp 93-104; 5 minutes)

G. Other Regulatory Announcements/Issues of Interest

- CalRecycle News (pp 105-115)
- CalRecycle E-Waste Updates (pp 117-118)
- Cal EPA CUPA Newsletters (pp 119-131)

VIII. Agenda Suggestions, Member County Presentation Volunteer, Workshop Topics for Next ESJPA Board Meeting Scheduled Thursday, Dec 6, 2018.

IX. Articles of Interest (pp 135-166)

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X. Adjournment

12:00 PM Lunch

1:00 PM

Technical Advisory Group Breakout Session

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This afternoon session will be an informational session regarding opportunities that member counties might consider. You are invited and encouraged to participate in this afternoon session.

- A. Waste-to-Energy Systems – Syntech Global (pp 169-196)
- B. Recycle Across America Standardized Label and Education Campaign Proposal – Mary Pitto, Program Manager, ESJPA (pp 197-222)

Meeting facilities are accessible to persons with disabilities. By request, alternative agenda document formats are available to persons with disabilities. To arrange an alternative agenda document format or to arrange aid or services to modify or accommodate persons with a disability to participate in a public meeting, please contact our offices at least 72 hours prior to the meeting by calling (916) 447-4806.

Agenda items will be taken as close as possible to the schedule indicated. Any member of the general public may comment on an agenda item at the time of discussion. In order to facilitate public comment, please let staff know if you would like to speak on a specific agenda item.

The final agenda for this meeting of the Board of Directors of the Rural Counties' Environmental Services Joint Powers Authority will be duly posted at its offices: 1215 K Street, 16th Floor, Sacramento, California at least 72 hours prior to the meeting.

Agenda Item II

BUSINESS MATTERS

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



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

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PROGRAM MANAGER – MARY PITTO

MEMORANDUM

To: ESJPA Board of Directors

From: Mary Pitto, Program Manager

Date: October 10, 2018

Re: ESJPA Proposed Meeting Calendar – CY 2019

The proposed ESJPA meeting schedule for the 2019 calendar year is shown on the following page and is presented for your consideration and adoption. Consistent with past years, the proposed meeting schedule includes five meeting dates commencing in March 2019.

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

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

Recommendation:

Consistent with the requirements of Section 8 of the Joint Exercise of Powers Agreement, amended and restated December 16, 2004, it is recommended that the ESJPA Board adopt the 2019 Board meeting schedule as shown on the attached.

ESJPA BOARD OF DIRECTORS 2019 MEETING CALENDAR

Thursday, March 14 th	RCRC Conference Room
Thursday, June 20 th	RCRC Conference Room
Thursday, August 15 th	RCRC Conference Room
Thursday, October 17 th	RCRC Conference Room
Thursday, December 12 th	RCRC Conference Room

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

Agenda Item V

PRESENTATIONS

Mary Pitto

From: CalRecycle Extended Producer Responsibility <EPR@calrecycle.ca.gov>
Sent: Tuesday, October 2, 2018 8:05 AM
To: Mary Pitto
Subject: Notice of Changes to Proposed AB 901 Reporting Regulations

On October 1, 2018, the California Department of Resources Recycling and Recovery (CalRecycle) initiated a 15-day comment period for changes to the Proposed AB 901 Reporting Regulations. The 15-day written public comment period for this rulemaking ends at 11:59 p.m. on October 16, 2018.

This 15-day comment period follows an initial 45-day public comment period that ran from January 26, 2018 to March 14, 2018, and a 15-day comment period that ran from May 16, 2018 to May 31, 2018. CalRecycle staff held a public hearing on the proposed regulations on March 14, 2018. After considering comments received during the initial comment period, comments made at the public hearing, and comments received during the 15-day comment period, CalRecycle staff revised the Proposed AB 901 Reporting Regulations. These revisions will add clarity to the existing language.

A copy of the full text of the regulations as originally proposed that include the newly proposed changes clearly indicated is available on the AB 901 - Recycling and Disposal Reporting - Proposed Rulemaking website at: <https://www.calrecycle.ca.gov/laws/rulemaking/Reporting/default.htm>. Text shown in bold double underline (addition) and greyed double strikeout (deletion) depict proposed changes made after the initial comment period and first 15-day comment period. CalRecycle staff is only required to respond to comments related to the newly proposed changes to the regulations.

For more information go to [AB 901: Disposal and Recycling Facility Reporting Program](#). To unsubscribe from the AB 901: Disposal and Recycling Facility Reporting Program list, please go to <https://www2.calrecycle.ca.gov/Listservs/Unsubscribe/146>.

Please submit your written comments to:

Steven Sander
Project Lead
801 K St., MS 17-01
Sacramento, CA 95814

FAX: (916) 319-7227

EMAIL: AB901.Reporting@CalRecycle.ca.gov

Thank you for your interest and participation in this process.

To unsubscribe from the Extended Producer Responsibility listserv or other listservs, please go to <https://www2.calrecycle.ca.gov/listservs>.

~
Serial Number: SF48BRBJ
Sent On: 10/02/2018 8:03 AM
~

Recycling and Disposal Facility Reporting (AB 901)

Description

[Chapter 746, statutes of 2015](#) (Assembly Bill 901, Gordon) was signed by Governor Brown and changes how organics, recyclable material, and solid waste are reported to CalRecycle. Disposal, recycling, and compost facilities, as well as exporters, brokers, and transporters of recyclables or compost will be required to submit information directly to CalRecycle on the types, quantities, and destinations of materials that are disposed of, sold, or transferred inside or outside of the state. CalRecycle also gains enforcement authority to collect this information. Chapter 746, statutes of 2015 (AB 901) was codified in [Public Resources Code section 41821.5](#).

The data acquired by the new regulations will inform CalRecycle's understanding of material flows within the State's recycling infrastructure; allow CalRecycle to better estimate total recycling and composting; and assist CalRecycle to track progress towards several state goals and programs, including the 75 percent recycling goal, mandatory commercial recycling, and organics diversion programs. This information will allow CalRecycle to implement various improvements in areas such as increased responsiveness to changes in the recycling landscape, operational efficiencies, and the targeting of state resources to recycling infrastructure to foster a circular economy.

Affected Regulatory Code Sections

California Code of Regulations, Title 14, Division 7, Chapter 9, Article 9.2, commencing with section 18800.

Current Status and Documents

The [seventh draft](#) of the proposed regulatory text was released on October 1, 2018 for a 15-day formal comment period that will close on October 16, 2018 at 11:59 p.m. Please refer to the "[Notice of Changes to Proposed AB 901 Regulations](#)" document in the "[Documents](#)" section below for information on how to comment. The proposed regulatory text can also be found below in the "[Documents](#)" section. A copy of the seventh draft of the proposed regulatory text can be found below as well as a [high level summary of changes](#) and a [clean](#) (less marked-up) copy, which is to be used for reference purposes only. Copies of comments received during the 15-day and 45-day periods can be found below under the "[Stakeholder Input](#)" section.

To receive updates on the proposed regulations for recycling and disposal facility reporting, please register for the [reporting rulemaking listserv](#).

Our current schedule for regulation and reporting system development is below. This is a tentative estimate based upon the latest version of the proposed regulatory text and is subject to change.

For disposal and recycling reporting:

- Solid Waste Facility Reporting Continues in [DRS](#) through Q2 2019
- Adoption of the Regulations: Late 2018
- Development of the Electronic Reporting System: 2018-Early 2019
- Outreach and Training: Early 2018-Mid 2019
- Initial Online Facility Registration in the Recycling and Disposal Reporting System (RDRS): April 1-30, 2019
- Reporting Entities Begin Recording Required Information for RDRS Reports on July 1, 2019
- Reporting Entities Submit Online RDRS Reports for the Third Quarter of 2019
 - Haulers: October 31, 2019
 - Transfer/Processors, Recycler/Composters, Broker/Transporters: November 30, 2019
 - Disposal Facilities: December 31, 2019

Documents

- [Notice of Changes to Proposed AB 901 Regulations \(Second 15-day\)](#)
- [Seventh Draft Regulations, October 2018](#)
- [Seventh Draft Regulations, Clean Copy \(for reference purposes\), October 2018](#)
- [High Level Summary of Changes from Sixth to Seventh Draft](#)

Previous Drafts

- [Notice of Changes](#) (First 15-day)
- [Sixth Draft Regulations](#), May 2018
- [Explanation of Changes from Fifth to Sixth Draft](#)
- [Notice of Proposed Rulemaking](#)
- [Fifth Draft Regulations Published by OAL](#), January 2018
- [Initial Statement of Reasons](#)
- [Fourth Draft Regulations](#), September 2017
- [Explanation of Changes from Third to Fourth Draft Regulations](#)
- [Third Draft Regulations](#), February 2017
- [December 2016 Stakeholder Workshop Presentation](#)
- [Second Draft Regulations](#), November 2016
- [First Draft Regulations](#), June 2016
- [Chapter 746, Statutes of 2015 \(AB 901\) Text](#)
- [July 2016 Stakeholder Workshop Presentation](#)
- [August 2016 Stakeholder Workshop Presentation](#)

(Note: To enhance accessibility of PDFs, switch to high-contrast colors, as needed, when viewing.)

Contact

You may contact CalRecycle staff at AB901.Reporting@calrecycle.ca.gov.

Also, subscribe to the [Recycling and Disposal Facility Reporting Listserv](#) for emails regarding rulemaking developments.

Historical Information

Rulemaking History

Four rounds of informal workshops took place in April, July, August and December in Northern and Southern California. See the "[Stakeholder Input](#)" section for more information.

Stakeholder Input

CalRecycle has received and evaluated comment letters from several stakeholders after the workshops in August 2017.

- [AB 901 Second Comment Period, 15-Day, May 2018](#)
- [AB 901 First Comment Period, 45-Day, January-March 2018](#)

Other comments received on this rulemaking:

- [2017 Comments Received](#) (combined)
- [2016 Comments Received](#) (combined)

CalRecycle held several informal workshops for stakeholders to provide feedback on the creation of AB 901 disposal and recycling reporting regulations.

- [March 14, 2018](#) (Sacramento) | [Video](#)
- [December 13, 2016](#) (Southern California) | [Video](#)
- [December 12, 2016](#) (Sacramento) | [Video](#)
- [August 24, 2016](#) (Sacramento) | Videos: [Products and Material Types](#) | [General Topics](#)
- [August 23, 2016](#) (Sacramento) | Videos: [Penalties/enforcement](#) | [Multiple operations](#) | [Jurisdictional requests & confidentiality](#) | [Methodologies for determining origin & sector](#)
- [August 22, 2016](#) (Sacramento) | Videos: [Thresholds](#) | [Organics management](#)
- [July 12, 2016](#) (Diamond Bar) | [Video](#)
- [July 7, 2016](#) (Sacramento) | [Video](#)
- [April 26, 2016](#) (Diamond Bar) | [Video](#)
- [April 19, 2016](#) (Sacramento) | [Video](#)

Stakeholders also had the opportunity to view the [workshops in real time](#).

Agenda Item VII

SOLID WASTE REGULATORY UPDATES



CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY
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PROGRAM MANAGER – MARY PITTO

MEMORANDUM

To: ESJPA Board of Directors
From: Mary Pitto, Program Manager
Date: October 10, 2018
RE: Senate Bill 1383 Short-Lived Climate Pollutants Regulation
and Assembly Bill 1826 Mandatory Commercial Organic Waste Recycling

SB 1383

The second informal draft of the regulations for Senate Bill 1383 Short-Lived Climate Pollutants was released on May 2nd. While this draft did respond to many of our concerns, it also created new issues that staff summarized in the SB 1383 memo for the June ESJPA Board meeting.

ESJPA staff has since been working with Placer County and CalRecycle on an additional rural exclusion for collection of residential food waste above the 4,500-foot elevation. As Placer County has experienced, bears pose a health and safety issue related to food waste collection in residential areas to people, the bears, and property. While most of the above 4,500-foot elevations are already included in the low-population counties and are therefore proposed for the 5-year exemption, there are cities (i.e. Lake Tahoe and Truckee) and unincorporated areas that are subject to SB 1383's residential collection requirement. This poses significant and costly logistical challenges.

ESJPA staff recently met with CalRecycle staff and was informed that they intent to include a "Bear Waiver" in the proposed SB 1383 regulations (see attached concept). This proposal will not be included in the formal draft that is planned to be released for the formal rulemaking process by the end of the year. The formal draft was submitted for initial regulatory processing in July with only minor changes, as planned. However, CalRecycle staff has continued to work on future expected revisions based upon comments they have received. When the formal draft is released for the 45-day review period, stakeholders will submit their comments again as part of the public record. Any significant changes would then be incorporated into the second formal draft of the regulations.

CalRecycle expects to release the economic analysis soon for public review prior to releasing the formal draft regulations. The formal draft is now expected to be before the end of 2018.

The proposed regulations and additional information can be accessed here:
<http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=2366&aiid=2159>

AB 1826

In addition, Placer County requested that businesses located above the 4,500-foot elevation that generate 2-4 cubic yards of solid waste per week be exempt from the AB 1826 recycling food waste

requirement for the same reasons. CalRecycle has made the determination that under specified conditions pursuant to Public Resources Code 42649.82 (e)(3)(D), it is allowable (see attached e-mail).

At the October 23, 2018 CalRecycle public meeting there is an informational update for the "Process for Determining AB 1826 Reduction of Statewide Organics Disposal in 2020. The staff report (attached) outlines the methodology it plans to utilize to make the determination. Basically, CalRecycle plans to use the 2018 Statewide Waste Characterization Study data with 2019 Recycling and Disposal Reporting System data to determine whether statewide disposal organic waste has not been reduced to 50% of the 2014 level.

CalRecycle must then determine whether businesses that generate 2 cubic yards or more of solid waste must begin organic waste recycling services and whether the rural counties (less than 70,000 population) must begin implementing AB 1826. In their report CalRecycle states that in 2020, if the relative impact by rural jurisdictions on statewide disposal is not significant, then CalRecycle staff will be extending the current AB 1826 exemption until January 1, 2025!

Staff Recommendation

We encourage counties to review the proposed regulations and plan to become engaged during the AB 1383 formal rulemaking process.

Attachments

- CalRecycle's Bear Waiver Concept
- CalRecycle's Email to Christina Hanson dated September 25, 2018
- CalRecycle's Process for Determining AB 1826 Reduction of Statewide Organics Disposal in 2020

Bear Waiver Concept

SB 1383 Bear Waiver

The proposed SB 1383 regulations could allow a limited form of exemption for areas located above an elevation of 4,500 feet. Specifically:

- **Incorporated cities located at or above 4,500 feet:** An incorporated city located at or above 4,500 feet may be exempt from the obligation to provide certain aspects of the collection services to their generators. The city would apply for an exemption using the same process for low population cities to apply for a waiver.
- **Census tracts located at or above 4,500 feet:** A county may be exempt from the obligation to provide certain aspects of the collection services to generators located in unincorporated census tracts located at or above 4,500 feet. The county would designate the census tracts using the same process for low-density census tract exemptions currently outlined in the draft regulations.

For incorporated cities and counties with census tracts that are located at above 4,500 feet, the aspects of collection services that their generators may be exempted from are:

- **Residential generators**
 - Exempt from the requirement to separate and recycle food waste/food soiled paper.
 - Food waste/food soiled paper could be collected for disposal in the black/gray container.
- **Commercial generators** ****That are not regulated by AB 1826 (see attached)****
 - Exempt from the requirement to separate and recycle food waste/food soiled paper.
 - Food waste/food soiled paper could be collected for disposal in the black/gray container.

These exemptions would not sunset, and exemptions would be granted to any city or census tract located above 4,500 feet. However, similar to existing exemptions in the regulations, counties and cities seeking an exemption must actively apply for the exemption periodically.

Other types of organic waste included in the regulations but not specifically listed here (e.g. green waste, yard waste, paper, cardboard and other materials) are not exempt from recycling requirements in the draft regulations under this proposal.

The Bear Wavier outlined here only provides potential exemptions from requirements included in the SB 1383 regulations. For information on authority for a jurisdiction to grant exemptions from AB 1826 requirements, see separate e-mail sent on 9.25 (attached)

Exemption Type	Organics Disposal, tons	Percentage of Total Disposal	Population Count	Population Percentage
Rural Unincorporated and Incorporated Jurisdictions (SB 1826)	300,213.50	.96%	575,893	1.49%
Low Population Incorporated (Less Than 5,000 Tons of Disposal and Population)	25,245.48	.08%	46,306	0.12%
Bear Waiver Incorporated (South Lake Tahoe, Truckee, and Big Bear Lake)	11,039.83	.04%	41,485	0.11%
Low Population Unincorporated (Census tracts less than 50 persons per square mile)	453,456.96	1.45%	838,059	2.29%
Bear Waiver Unincorporated (Census tracts greater than 50 persons per square mile)	31,438.32	.1%	214,435	0.58%
Totals	821,394.09	2.63%	1,716,178	4.58%

From: Morgan, Cara@CalRecycle
Sent: Tuesday, September 25, 2018 7:26 AM
To: 'Christina Hanson'
Cc: 'Mary Pitto'; Danner, Ward@CalRecycle; Rasmussen, Joseph@CalRecycle; Levenson, Howard@CalRecycle; Brady, Hank@CalRecycle
Subject: AB 1826 exemptions re: bears and food waste

Hi Chris,

This is in response to your request regarding AB 1826 exemptions for communities located at elevations higher than 4,500' due to the Health and Safety issue regarding bears and food waste. We have met with Legal Counsel to discuss your request. Under specified conditions provided below you are allowed to apply the exemption in PRC 42649.82(e)(3)(D) for this situation.

Background on the Request:

In communities that are located at elevations higher than 4500' bears pose a health and safety issue related to food waste collection. Food waste that is placed in containers that are not bear-proof poses a significant health and safety issue to bears, people and property. You inquired about allowing exemptions for businesses that generate 2-4 cy of solid waste/week from recycling food waste/food soiled paper because these businesses are too small to warrant a bear-proof container. Additionally, you only plan to apply this to food waste/food soiled paper for businesses that meet the above thresholds and that cannot be serviced with a bear-proof container. These businesses would still be responsible for recycling the other required materials, such as green waste and wood waste.

Specified Conditions for the Use of this Exemption:

While AB 1826 is not really written for this specific situation, it is allowable for you to utilize the exemption pursuant to PRC 42649.82(e)(3)(D) for the following reasons:

1. Exempting these businesses from food waste/food soiled paper collection will have a small impact on statewide organics disposal;
2. This public health and safety situation can be viewed as an extraordinary event (even if it is a known risk in those areas); and,
3. It is considered a limited term exemption. Therefore, you are expected to periodically re-assess and determine if the exemption is still needed for a business or group of businesses (it is considered a limited term exemption, even if it continues to be renewed).

To allow for this exemption, you should determine that it is not feasible to provide the business (or group of businesses) with a bear-proof container.

Electronic Annual Report:

Also, pursuant to the requirements of PRC 42649.82(f)(2), you will need to provide information in the annual report regarding the exemptions, including how many were granted, etc.

- For example, in the data fields please report these in your total of regulated businesses, and if these businesses are not recycling other organics, such as green and wood waste, they will be included in your total for not recycling.
- Please make a note in your annual report as to how you are counting them.

Please discuss with Ward if you have any questions about the annual report.

Note: Your suggestions regarding how this might be handled under the draft SB 1383 regulation for residents and for businesses that generate less than 2cy of solid waste will be addressed during the formal rulemaking process.

If you have any questions, please let me know. Thank you for working with us on this issue~Cara

Cara Morgan

Branch Chief

CalRecycle | Local Assistance and Market Development Branch

Phone 916.341.6253



INFORMATIONAL UPDATE

To: Scott Smithline, Director

From: Howard Levenson
Deputy Director, Materials Management and Local Assistance

Date: October 16, 2018

Subject: Process for Determining AB 1826 Reduction of Statewide Organics Disposal in 2020

Summary:

The purpose of this informational update is to share staff's planned process regarding implementation of AB 1826 provisions requiring CalRecycle to decide whether to: 1) require businesses that generate 2 or more cubic yards of solid waste per week to arrange for recycling services on or after January 1, 2020, and 2) extend the rural exemption from these requirements (pursuant to Public Resources Code Sections 42649.81(a)(4) and 42649.82(D), respectively). While this determination does not need to be made immediately, this item informs stakeholders about the process and timing that staff plans to deploy; it also is an opportunity for stakeholders to ask questions and provide input.

Staff is planning the following for this process:

Staff will use the 2018 Statewide Waste Characterization Study (WCS) data with 2019 Recycling and Disposal Reporting System (RDRS) data to determine whether statewide disposal organic waste has not been reduced to 50% of the 2014 level. Based on this determination CalRecycle then must decide:

1. Whether businesses that generate 2 cubic yards or more of solid waste must arrange for organic waste recycling services, unless the department determines that this requirement will not result in significant additional reductions of organics disposal. The timeline for this determination would be early 2020. **(Issue 1)**
2. The relative impact by rural jurisdictions on statewide disposal of organics, and whether rural exemptions authorized under AB 1826 can be extended. In 2020, if the relative impact by rural jurisdictions on statewide disposal is not significant, then CalRecycle staff proposes extending the current AB 1826 exemption until January 1, 2025. **(Issue 2)**

Statutory background and details of options are provided below.

Background Information:

AB 1826 (Chapter 727, Statutes of 2014) established new requirements for mandatory commercial organics recycling. The law phases in the requirements for businesses, including multifamily residential dwellings that consist of five or more units, over time based on the amount and type of waste the business produces on a weekly basis, with full implementation realized in 2019. Additionally, the law contains a 2020 trigger that will increase the scope of affected businesses if waste reduction targets are not met.

The 2020 trigger is the focus of this informational item.

First, CalRecycle must determine if the statewide disposal of organic waste has not been reduced by 50 percent of the level of disposal during 2014, pursuant to Public Resources Code (PRC) Section 42649.81(a)(4):

“On or after January 1, 2020, if the department determines that statewide disposal of organic waste has not been reduced to 50 percent of the level of disposal during 2014, a business that generates two cubic yards or more per week of commercial solid waste shall arrange for the organic waste recycling services specified in paragraph (3), unless the department determines that this requirement will not result in significant additional reductions of organics disposal.”

Based on that determination, if the disposal reductions do not meet the statutory levels specified in AB 1826, then commercial organics recycling requirements will be extended to businesses generating 2 cubic yards of solid waste per week. This expansion can only be delayed if CalRecycle can find that including these businesses would not result in significant additional reductions in organics disposal:

Note that this AB 1826 trigger is based on whether there is a 50% reduction in “AB 1826 organics” from the 2014 level, where “AB 1826 organics” include food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. This definition of organics is narrower than the definition proposed in the pending rulemaking to implement SB 1383.

Second, CalRecycle must also determine if exemptions for rural jurisdictions can be extended or must be terminated pursuant to PRC Section 42649.82(D):

“On or after January 1, 2020, if the department determines that statewide disposal of organic waste has not been reduced to 50 percent of the level of disposal during the 2014 calendar year, all exemptions authorized by this paragraph shall terminate unless the department determines that applying this chapter to rural jurisdictions will not result in significant additional reductions of disposal of organic waste.”

Analysis and Findings:

Issue 1: Whether Organics Disposal Has Been Reduced by 50% and Whether Businesses Generating 2+ Cubic Yards of Solid Waste Must Arrange for Organics Recycling Services

Since AB 1826 does not specify what data or time period CalRecycle must use to make the determination, staff considered three process options, all revolving around the timing of Waste Characterization data and Recycling and Disposal Reporting System data availability. Staff’s plan is to deploy Option 1, which would allow CalRecycle to change the threshold, if warranted, during the first quarter of 2020 (i.e., after receiving the 2019 statewide disposal data). If the threshold is changed to 2 cubic yards, CalRecycle would still provide jurisdictions until the end of 2020 to complete the process of providing organics collection service to all regulated entities.

Options:

1. Use the 2018 Statewide Waste Characterization Study (WCS) data with 2019 Recycling and Disposal Reporting System (RDRS) data.
2. Use the 2018 Statewide WCS data with 2018 Disposal Reporting System (DRS) data.
3. Use the 2020 Statewide WCS data with 2020 RDRS data.

Staff recommends Option 1 for the following reasons:

- a. **Timeliness:** Option 1 would provide the most current available data to make a determination in early 2020 (i.e., if organics waste disposal has been reduced by 50 percent). CalRecycle will have the 2019 RDRS data in early 2020.
 - i. Under Option 1, staff would use 2019 RDRS data, which would reflect the 2019 status of implementing AB 341 and AB 1826; i.e., in 2019 the threshold for mandatory commercial organics recycling decreases to 4 cubic yards of solid waste. This is the same threshold that applies to mandatory commercial recycling (AB 341).
 - ii. By contrast, under Option 2 CalRecycle could use the 2018 RDRS data to make a determination on January 1, 2020, but the data would *not* reflect the implementation of the lower 2019 threshold for mandatory commercial organics recycling.
 - iii. Under Option 3, CalRecycle would use the 2020 WCS/RDRS data, but then a decision could not be made until late 2021, since this data would not be available until sometime in 2021.
- b. **2018 versus 2020 Waste Stream Composition:** Staff assessed using the 2018 versus 2020 WCS data for this process. While it is possible that the waste stream composition could be different from the 2018 WCS to the 2020 WCS, waiting until mid-2021 for the next WCS is problematic for the reasons below.
 - i. Data from the 2020 WCS will not be available until mid to late 2021. This would result in almost a two-year delay in changing the threshold.
 - ii. There is no guarantee resources for a 2020 WCS will be available.
 - iii. Even if funding is available, state contracting procedures could delay timely execution of a contract and possibly delay the commencement of a WCS to 2021. As such, this could result in further delays in getting the study completed and making the data available by mid-2021, or in not being able to contract for the study at all.
 - iv. AB 1826 states that the decision to change the threshold is to be based upon the statewide reduction in organics disposal, not on the commercial portion of the waste stream. Staff is not anticipating that the waste stream composition will have changed that much (from 2018 to the end of 2019); e.g., many jurisdictions will not have implemented residential food waste for single family or multifamily. In addition, CalRecycle is aware of 66 jurisdictions that already have implemented the 4 cubic yards of commercial solid waste per week threshold well before the 2019 statutory deadline for doing so. Therefore, CalRecycle does not anticipate a significant change in statewide reductions for organics disposal from 2018 to the end of 2019.

Issue 2: Whether Organics Disposal Has Been Reduced by 50% and Whether the Rural Exemption Should be Terminated

Under AB 1826, if statewide disposal of organic waste has not been reduced to 50% of the 2014 level (as determined through the process outlined above), then the rural exemption terminates "unless" CalRecycle determines that eliminating the rural exemptions will not result in significant additional organic disposal reductions. To prevent or delay the end of exemptions, the department must positively find that extending the AB 1826 requirements to rural jurisdictions would not result in significant additional reductions.

In 2020, if the relative impact by rural jurisdictions on statewide disposal is not significant, then CalRecycle staff will be extending the current AB 1826 exemption until January 1, 2025. To make this determination, CalRecycle will use the 2018 Statewide Waste Characterization Study (WCS) data with 2019 Recycling and Disposal Reporting System (RDRS) data.

CalRecycle staff notes that draft SB 1383 regulations do not conflict with the decision-making process outlined in AB 1826. Draft Section 30.12 (c)(2) of the May 1, 2018 draft of the SB 1383 regulations reads:

“An exemption implemented pursuant to this subdivision shall be valid until January 1, 2025, or until five years after the Department makes a determination pursuant to Section 42649.82 (a)(2)(D) that the statewide disposal of organic waste has not been reduced to 50 percent of the level of disposal during the 2014 calendar year, whichever is later.”

If, using the process outlined here, CalRecycle determines that statewide disposal of organic waste has not been reduced to 50% of the 2014 level, then the rural exemptions proposed in SB 1383 will expire in 2025. This aligns with the proposed SB 1383 regulations and staff's proposal to extend AB 1826 rural exemptions 5 years beyond their natural expiration in 2020.

Mary Pitto

From: CalRecycle Organic Materials Management Listserv <organicsinfo@calrecycle.ca.gov>
Sent: Wednesday, September 12, 2018 10:18 AM
To: Mary Pitto
Subject: Composting Air Quality Permitting and Regulatory Issues workshop recordings available, comments open until Sept. 24.

Workshop Recordings Available and Comment Period Open

COMPOSTING IN CALIFORNIA

Addressing Air Quality Permitting and Regulatory Issues for Expanding Infrastructure Discussion Paper

On August 21, 2018 in Sacramento and on August 24th in Diamond Bar, the California Air Pollution Control Officers Association (CAPCOA), California Air Resources Board (CARB), and CalRecycle held public workshops on a joint discussion paper addressing air quality permitting and regulatory issues for expanding existing and siting new compost facilities in California. You can view a recording of the Sacramento workshop [here](#), and the Diamond Bar workshop [here](#).

The comment period for this paper is open until September 24, 2018. Please submit comments to compost@calrecycle.ca.gov.

We look forward to receiving your comments. We will be publishing an updated paper along with a work plan (based on the paper, workshops, and comments) by the end of 2018. Updates on the progress of this process will be sent to this listserv. If you are receiving this information via an alternate source, please sign up for our Organic Materials Management listserv at: <https://www2.calrecycle.ca.gov/Listservs/>.

To subscribe to or unsubscribe from the Organics listserv or other listservs, please go to <https://www2.calrecycle.ca.gov/listservs/>. For information on Organic Materials Management efforts go to <http://www.calrecycle.ca.gov/Organics/>.

~

Serial Number: B8QOZA7Y
Sent On: 09/12/2018 10:17 AM

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COMPOSTING IN CALIFORNIA
Addressing Air Quality Permitting and Regulatory Issues for
Expanding Infrastructure
Discussion Paper Workshop Agenda

CalEPA Building's Sierra Hearing Room
1001 I St., Sacramento, CA 95812
Tuesday, 8/21/2018 1 PM – 5:30 PM

1. Welcome by moderator Alan Abbs, Executive Director of CAPCOA
2. Introduction to the Compost Permitting Discussion Paper
 - The Air Quality Permitting Process Overview
 - Number of Facilities Needed and ERC Shortage
3. Options Considered for Addressing Permitting and Regulatory Challenges
 - VOC Emissions Factors and Differentiation of Feedstock
 - Regional Modeling
 - Co-location of Compost Facilities at Landfills
 - Compost Facility VOC Reactivity
 - Small Distributed Facilities
 - Creation of Landfill ERC Offsets
 - Essential Public Service (EPS) Designation
4. Proposed Recommendations for Further Exploration
 - Regional Modeling
 - Creation of Landfill ERC Offsets
 - EPS Designation
 - Research Needs
5. Questions and Stakeholder Input
6. Brief Break
7. Air District Permitting Expert Panel
8. Open Discussion
9. Next Steps



CHAIR
VICE CHAIR
EXECUTIVE DIRECTOR –

TECHNICAL ADVISORY GROUP (TAG)
TAG CHAIR –
TAG VICE CHAIR –
PROGRAM MANAGER –

September 24, 2018

David Mallory, Manager, CARB Climate Change Policy Section
Dr. Crystal Reul-Chen, Senior Environmental Scientist, CalRecycle Statewide Technical Assistance Branch
Alan Abbs, Executive Director, CAPCOA
VIAEMAIL: compost@calrecycle.ca.gov

RE: Comments on Composting in California Addressing Air Quality Permitting and Regulatory Issues for Expanding Infrastructure Discussion Paper

Dear Mr. Mallory, Dr. Reul-Chen, and Mr. Abbs:

On behalf of the 24-member Rural Counties' Environmental Services Joint Powers Authority (ESJPA), thank you for the opportunity to provide comments on the Composting in California: Addressing Air Quality Permitting and Regulatory Issues for Expanding Infrastructure.

The ESJPA appreciates the efforts between the California Air Pollution Control Officers Association, the Air Resources Board, and CalRecycle to compile a common document on addressing air quality permitting and regulatory issues for expanding the needed composting infrastructure in California. This document provides an overview of the need for composting, the basic technical aspects of composting, and the status for considering air permitting of this technology.

As indicated in the Working Paper, CalRecycle's Mandatory Commercial Organics Recycling requirements, the Short-Lived Climate Pollutants (SLCP) objectives adopted in Senate Bill (SB) 1383 (Lara, 2016), and the upcoming regulations, California is targeting significant reduction of organics from landfilling. Unfortunately, there are significant permitting, funding, and regulatory challenges to implementing these programs by the current deadlines. The current estimate of 90 composting facilities and other facilities are woefully inadequate to handling the quantity of organics needed to achieve these mandates. This working paper provides a basis for coordinating the air districts on composting technology, but more efforts are needed to include other organics diversion technologies.

Some of the key issues regarding the Working Paper and the future work plans are listed below with more detail below:

Permitting new facilities and modifying existing facility approvals

Permitting and siting facilities is essential to managing organics diversion mandates. Some of the Working Paper's acknowledgments of this effort include: co-location at solid waste facilities and resignation as an Essential Public Service. Existing solid waste facilities already have significant regulatory requirements including environmental review, numerous permits by different agencies, and regular regulatory inspections. Adding composting and other organics facilities to these existing solid waste facilities is typically easier than siting and permitting an organics facility by itself. Co-location could even extend to use of closed landfills where appropriate. Even closed landfills have regulatory oversight. Resignation as an Essential Public Service is appropriate given the basis for Short-Lived Climate Pollutants requirements is related to the impacts of climate change on human health and the environment.

The Discussion Paper focuses on composting but the same need for streamlined siting and permitting apply to all types of organics facilities.

Including other organics diversion and technologies.

In addition to composting of green material, the Working Paper acknowledges the management of other organic material especially food waste and manure. Food waste diversion is a key component to achieving the required organics diversion. The Discussion Paper acknowledges the impacts of food waste on emissions, but more effort is needed on how to address the air quality issues. Similarly, the addition of manure is an important consideration especially in some of California's agriculture community. The State Water Resources Control Board recently considered incorporating manure into their composting waste discharge requirements. Both food and manure raise air emission concerns, but those impacts need to be included in the discussion as expeditiously as possible.

In addition, some jurisdictions are incorporating anaerobic digestion facilities as their chosen organics diversion efforts. Currently, the air requirements are being addressed site by site, district by district. More consensus is needed for this technology. California's biomass conversion industry is dwindling just as the need for these facilities is increasing. More effort is needed for these facilities to assist with compliance mandates.

Best Available Control Technology (BACT)

Best available control technology (BACT) is discussed in the Discussion Paper as part of the New Source Review requirements. Some air districts have adopted BACT requirements as part of their approval process. Development of statewide consensus on BACT measures would be helpful to avoid duplication of individual demonstrations. There will also need to be an allowance for new or modified technologies to be included into any standard BACT list as technology changes. Measuring emission levels by individual site can easily exceed \$200,000 to \$300,000 per source test which effectively limits its application to large facilities. Rural jurisdictions would

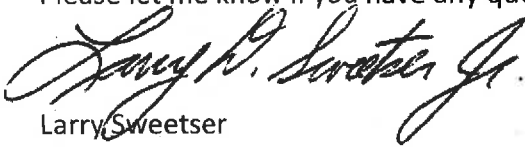
find such testing requirements prohibitive and would preclude development of these programs in rural areas.

Coordination with the State Water Resources Control Board

This Discussion Paper's coordination between CAPCOA, the Air Resources Board, and CalRecycle is a major step forward to streamlining efforts for siting, permitting and operations of composting facilities. We would also encourage coordination with the State Water Resources Control Board since their efforts on adopting Waste Discharge Requirements on composting activities is another requirement impacting composting activities. Some of the concepts in the Discussion Paper could influence the State Water Resources Control Board requirements.

Thank you for the opportunity to provide comments. We look forward to working with you and the other agencies on the future work plan and deliverables.

Please let me know if you have any questions.



Larry Sweetser
ESJPA Consultant

cc: Mary Pitto, Program Manager, Rural Counties' Environmental Services Joint Powers Authority

Rural Counties' Environmental Services Joint Powers Authority Board Members

**STATE WATER RESOURCES CONTROL BOARD
BOARD MEETING SESSION - DIVISION OF ADMINISTRATIVE SERVICES
SEPTEMBER 20, 2018**

ITEM 5

SUBJECT

CONSIDERATION OF A RESOLUTION ADOPTING EMERGENCY REGULATIONS REVISING THE CORE WATER QUALITY REGULATORY FEE SCHEDULES CONTAINED IN TITLE 23, DIVISION 3, CHAPTER 9, ARTICLE 1, SECTIONS 2200, 2200.4, 2200.6, AND 2200.8 OF THE CALIFORNIA CODE OF REGULATIONS.

DISCUSSION

Water Code Section 13260 requires each person who discharges waste or proposes to discharge waste that could affect the quality of the waters of the state to file a report of waste discharge with the appropriate regional water board and to pay an annual fee set by the State Water Board, the funds from which are deposited in the Waste Discharge Permit Fund (WDPF). Water Code Section 13260 requires the State Water Board to adopt, by emergency regulations, an annual schedule of fees for persons discharging waste to the waters of the state. Water Code Section 13260 further requires the State Water Board to adjust the annual fees each fiscal year to conform to the revenue levels set forth in the Budget Act. Staff review all WDPF programs' fees on an annual basis and hold several stakeholder meetings throughout the year that coincide with the various iterations of the Governor's Budget.

Financial Condition of the Waste Discharge Permit Fund

Attachment 1: WDPF Fund Condition shows a 6-year analysis of the fund condition of the WDPF. The FY 2017-18 beginning balance was approximately \$12.3 million. Total projected revenue for FY 2017-18 is approximately \$125.6 million and total projected expenditures for FY 2017-18 are approximately \$133.0 million, resulting in a \$7.4 million loss with a balance of \$4.9 million and a fund reserve of approximately 3.7 percent.

The FY 2018-19 adjusted beginning balance is approximately \$13.9 million, of which approximately \$9.0 million is from a one-year accounting adjustment related to the Water Boards' conversion to the State of California's FISCAL financial management system. Under the current fee schedule, total revenue is anticipated to be approximately \$142.5 million and total expenditures are anticipated to be approximately \$157.4 million, resulting in a loss of \$14.9 million and a negative ending balance of approximately \$997,000.

Program Expenditures

Attachment 2: WDPF Budget Cost Drivers shows the FY 2018-19 projected revenue based on the existing fee schedule, the budget for FY 2018-19, the projected revenue adjustments and the cost drivers, including staff cost and program adjustments and budget change proposal (BCP) adjustments. This table also shows any revenue increases by program required for maintaining a minimum four percent fund reserve. As a result of projected expenditures exceeding projected revenue, staff is proposing to increase fees for most WDPF programs as noted below.

Proposed Fee Schedule Changes

Waste Discharge Requirement (WDR)

The WDR program budget for FY 2018-19 is \$33.4 million and projected revenue is \$28.2 million. Staff is proposing to partially make up the \$5.2 million structural deficit by increasing all WDR fee categories approximately 9.5 percent to generate \$2.7 million in revenue and defer the balance for consideration until next fiscal year. All applicable surcharges will remain unchanged for FY 2018-19.

Water Quality Certification (WQC)

The WQC program budget for FY 2018-19 is \$12.4 million and projected revenue is \$10.5 million. Staff is proposing to partially make up the \$1.9 million structural deficit by increasing all WQC fee categories approximately 9.2 percent to generate \$967,000 in revenue and defer the balance for consideration until next fiscal year. Staff is also making minor edits to the WQC fee schedule to include clarifying language.

NPDES

The NPDES program budget for FY 2018-19 is \$33.0 million and projected revenue is \$27.6 million. Staff is proposing to partially make up the \$5.4 million structural deficit by increasing all NPDES fee categories approximately 10 percent to generate \$2.7 million in revenue and defer the balance for consideration until next fiscal year. All applicable surcharges will remain unchanged for FY 2018-19.

Confined Animal Facilities (CAF)

The CAF program budget for FY 2018-19 is \$5.1 million and projected revenue is \$4.6 million. Staff has considered the factors in Water Code section 13260, subdivision (d)(1)(D), and is proposing to partially make up the \$559,000 structural deficit by increasing all CAF fee categories approximately 6.2 percent to generate \$285,000 in revenue and defer the balance for consideration until next fiscal year.

Agricultural (Ag) Lands

The Ag Lands program budget for FY 2018-19 is \$7.8 million and projected revenue is \$6.7 million. Staff is proposing to partially make up the \$1.2 million structural deficit by making the changes below to generate \$593,000 in revenue and defer the balance for consideration until next fiscal year.

Staff is proposing to increase fees by approximately 8.9 percent for dischargers belonging to a group that is subject to WDRs or a waiver of WDRs and is responsible for coordinating water quality monitoring and best management practice development, training and implementation, and generally assists its members with complying with the WDRs or waiver of WDRs, and has been approved by the state board to manage fee collection.

Staff is proposing a new fee for dischargers that are members of a group that provides monitoring-only services and manages the fee collection for members, but does not perform the other functions described above. The monitoring-only model is currently utilized only in the Central Coast Region and by only one group. The proposed fee for these dischargers is a \$100 base fee plus \$1.90 per acre, which is double the proposed per acre fee of \$0.95 for those members belonging to a group that performs all of the functions described above and also manages fee collection. The higher fee is required to cover costs for work performed by Regional Board staff that would typically be performed by a group.

Staff is also proposing to raise the base fee and decrease the per acre fee for dischargers that are members of a group that performs the functions described above except managing fee collection. The proposed base fee increase is from \$100 to \$250 and the proposed per acre fee decrease is from \$1.47 to \$1.43. \$1.43 is one and a half times the proposed per acre fee for those members belonging to a group that performs all of the functions, including managing fee collection. There are currently no fee payers in this tier.

Programs with No Proposed Fee Increases

The Land Disposal, Storm Water and Cannabis programs are projected to generate sufficient revenue to meet budgeted expenditures. Therefore, staff is proposing no fee increases for FY 2018-19 for these programs. In addition, the FY 2017-18 one-year fee reduction for the Land Disposal programs will be removed.

Waivers

At the September 19, 2017 meeting, the State Water Board directed staff to work with regional board staff and stakeholders to evaluate the propriety of assessing fees on waivers of waste discharge requirements. Staff reviewed all current regional board waivers and determined that they either require the payment of a fee if a fee schedule for that discharge type exists or appropriately waive the fee based on legislation or if it is an emergency waiver. Staff will continue to work with Regional Board staff and stakeholders on the appropriateness of fees for new waivers or the renewal of existing waivers.

POLICY ISSUE

Should the State Water Board adopt a resolution amending the annual fee schedules as proposed by staff?

FISCAL IMPACT

The FY 2018-19 Budget Act includes expenditure authority for the Waste Discharge Permit Fund of \$156.2 million. The proposed fee schedule changes will ensure the projected revenue for the WDPF, when added to the projected fund balance from FY 2017-18, meets the FY 2018-19 budget expenditure authority and maintains a prudent fund reserve of approximately 4.0 percent.

REGIONAL BOARD IMPACT

The proposed fee schedule changes would allow the State Water Board to initiate the gradual transition of assessing fees that reflect projected regional board priorities.

STAFF RECOMMENDATION

That the State Water Board approves the resolution to adopt emergency regulations to change the current annual fee schedules as proposed by staff.

State Water Board action on this item will assist the Water Boards in reaching Goals 1-4 of the Strategic Plan Update: 2008-2012 to:

- Goal 1: Support beneficial uses
- Goal 2: Improve and protect groundwater equality
- Goal 3: Increase sustainable local water supplies
- Goal 4: Address water quality protection and restoration

WDPF Fund Condition (\$000)

						Forecast		Forecast
	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 18-19 With Fee Changes	
FEE PROGRAM								
BEGINNING BALANCE	\$3,799	\$12,335	\$21,003	\$19,524	\$12,274	\$4,874	\$4,874	
Prior Year Adjustments ¹	\$1,132	\$907	\$2,009	(\$449)		\$9,000	\$9,000	
Adjusted Beginning Balance	\$4,931	\$13,242	\$23,012	\$19,075	\$12,274	\$13,874	\$13,874	
REVENUE								
Regulatory Fees	\$117,158	\$123,712	\$116,740	\$124,135	\$125,235	\$142,156	\$149,426	
Other ²	\$102	\$246	\$250	\$402	\$391	\$391	\$391	
Total Fee Program Revenue	\$117,260	\$123,958	\$116,990	\$124,537	\$125,626	\$142,547	\$149,817	
EXPENDITURES								
Water Board State Operations ⁴	\$107,433	\$113,169	\$117,843	\$128,283	\$129,971	\$154,363	\$154,363	
Local Assistance ⁵	\$1,610	\$1,700	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	
Other State Operations ⁵	\$813	\$1,328	\$835	\$1,255	\$1,255	\$1,255	\$1,255	
Total Fee Program Expenditures	\$109,856	\$116,197	\$120,478	\$131,338	\$133,026	\$157,418	\$157,418	
GAIN/ (LOSS)	\$7,404	\$7,761	(\$3,488)	(\$6,801)	(\$7,400)	(\$14,871)	(\$7,601)	
Fee Program Ending Balance	\$12,335	\$21,003	\$19,524	\$12,274	\$4,874	(\$997)	\$6,273	
Fund Reserve	11.2%	18.1%	16.2%	9.3%	3.7%	-0.6%	4.0%	
FINES & PENALTIES								
BEGINNING BALANCE	\$0	\$881	(\$669)	\$447	\$2,369	\$6,145	\$6,145	
REVENUE								
Penalty Assessments	\$1,212	\$1,331	\$1,505	\$2,284	\$4,186	\$0	\$0	
Total F&P Revenue	\$1,212	\$1,331	\$1,505	\$2,284	\$4,186	\$0	\$0	
EXPENDITURES								
Marijuana (Cannabis) ⁷		\$1,637						
Water Recycling ⁷	\$331	\$377	\$389	\$362	\$410	\$410	\$410	
Regional Water Planning ⁷								
Drinking Water ⁷		\$367						
Water Asst. Program ⁷								
ACL Project Expenditure ⁷ Cal/EPA ⁸		\$500						
Total F&P Expenditures	\$331	\$2,881	\$389	\$362	\$410	\$410	\$410	
GAIN/ (LOSS)	\$881	(\$1,550)	\$1,116	\$1,922	\$3,776	(\$410)	(\$410)	
Fines & Penalties Ending Balance	\$881	(\$669)	\$447	\$2,369	\$6,145	\$5,735	\$5,735	
WDPF Fund Balance	\$13,216	\$20,334	\$19,971	\$14,643	\$11,019	\$4,738	\$12,008	

Footnotes:

- ¹ Most adjustments represent unspent contract dollars that revert to the Fund. For FY 18-19, this number also includes adjustments related to the FISCAL conversion.
- ² Restricted revenue is revenue received from fines and penalties that must be expended on cleanup and abatement activities.
- ³ Other revenue includes fines and penalties, interest from the state's pooled money investment fund, and escheat from unclaimed checks.
- ⁴ Includes estimated costs for a Pay Letter issued July 5, 2018.
- ⁵ Local Assistance for Beach Monitoring.
- ⁶ Other state operations includes appropriations for Cal/EPA, FISCAL, and the State Controller's Office.
- ⁷ Legislative Augmentation. Funded by revenue received from fines and penalties.
- ⁸ Cal/EPA expenditure for Environmental Justice grants. No impact to fee programs.

**WDPF Budget Cost Drivers
FY 2018-19 (\$000)**

A	B	C	D	E (B+C+D)	F	G (E-F)	H (F+G)	I	J	K (G+J)	L (F+K)	M
WDPF Program	FY 17-18 Fee Budget ¹	BCP Changes	Staff Cost & Program Adjustments ²	FY 18-19 Allocation Budget ³	FY 18-19 Revenue Forecast	Forecasted Revenue Increase / (Decrease)	FY 18-19 Total Revenue	Average Program Percent Change	Revenue Adjust for 4% Fund Reserve ⁴	Adjusted Revenue Increase / (Decrease) ⁵	FY 18-19 Adjusted Total Revenue ⁶	Adjusted Average Program Percent Change ⁷
WDR	\$30,152		\$3,258	\$33,410	\$28,176	\$5,234	\$33,410	18.6%	(\$2,567)	\$2,667	\$30,843	9.5%
Land Disposal	\$12,216		\$1,916	\$14,132	\$14,269	(\$137)	\$14,132	-1.0%	\$137	\$0	\$14,269	0.0%
WQC (401 Cert)	\$10,533		\$1,872	\$12,405	\$10,506	\$1,898	\$12,405	18.1%	(\$931)	\$967	\$11,474	9.2%
Storm Water	\$27,961		\$4,125	\$32,086	\$32,206	(\$120)	\$32,086	-0.4%	\$120	\$0	\$32,206	0.0%
NPDES	\$30,043		\$2,993	\$33,036	\$27,626	\$5,410	\$33,036	19.6%	(\$2,652)	\$2,758	\$30,384	10.0%
CAF	\$4,839		\$299	\$5,138	\$4,579	\$559	\$5,138	12.2%	(\$274)	\$285	\$4,864	6.2%
Ag Lands (ILRP)	\$7,622		\$210	\$7,832	\$6,669	\$1,163	\$7,832	17.4%	(\$570)	\$593	\$7,262	8.9%
Cannabis	\$10,594	\$3,929	\$3,601	\$18,124	\$18,124		\$18,124				\$18,124	
TOTAL	\$133,960	\$3,929	\$18,274	\$156,163	\$142,156	\$14,007	\$156,163		(\$6,737)	\$7,270	\$149,426	

Adjusted Revenue Reserve Percent:	4.0%
Adjusted Revenue Reserve Amount:	\$6,295

Footnotes:

- ¹ Includes redirected expenditures for programs like Basin Planning, TMDL, monitoring and enforcement.
- ² Includes resource reallocation for employee compensation, retirement, health care costs, space optimization and pro rata.
- ³ Includes estimated costs for a Pay Letter issued July 5, 2018.
- ⁴ Adjustments to revenue levels while maintaining a prudent reserve.
- ⁵ Recommended revenue level adjustments.
- ⁶ Net revenue levels after adjustments.
- ⁷ Net percentage change impact after recommended adjustments.

201718-4819 Fee Schedules

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

Section 2200. Annual Fee Schedules.

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

(a) The annual fees for persons issued waste discharge requirements (WDRs), except as provided in subdivisions (a)(3), ~~(a)(4)~~, (b), and (c), shall be based on the discharge's threat to water quality (TTWQ) and complexity (CPLX) rating according to the following fee schedule, plus applicable surcharge(s). ~~For Fiscal Year 2017-18, Land Disposal dischargers will receive a 12.6 percent fee reduction of the calculated fee, prior to the addition of any applicable surcharge.~~

ANNUAL FEE SCHEDULE FOR WASTE DISCHARGE REQUIREMENTS				
Threat to Water Quality (TTWQ)	Complexity (CPLX)	Type of Discharge		
		Discharge to Land or Surface Waters ²	Land Disposal ³	
			Not Paying a Tipping Fee ⁴	Paying a Tipping Fee ⁵
1	A	\$108,095,119,459	\$70,781 ⁶	\$59,252 ⁶
1	B	\$68,901,75,447	\$57,168	\$47,856
1	C	\$37,178,40,710	\$36,751	\$30,766
2	A	\$24,833,27,192	\$30,625	\$25,638
2	B	\$14,929,16,347	\$24,502	\$20,510
2	C	\$11,195,12,259	\$18,376	\$15,383
3	A	\$8,823,9,661	\$12,250	\$10,256

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.

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.

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3	B	\$4,6995,145	\$9,188	\$7,690
3	C	\$2,0882,286	\$4,082	\$3,419

Oil and gas produced water storage and disposal facilities regulated by waste discharge requirements are subject to a surcharge according to the following schedule:

TTWQ & CPLX Rating	Surcharge per Barrels of Waste Water Discharged in the Prior 12 Months		
	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.

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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

(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)	\$4,500 1,638	Impact area in acres x \$13,268 14,489 , minus application fee, up to a maximum of \$130,000 142,100 (if balance equals less than the application fee, no project fee is required).	\$4,500 1,638

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

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 Corps 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 for each project at the time that the application or report of waste discharge is submitted.

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 and the Project Fee. The annual fee for category (B) dredging discharges will be calculated using the annual dredge volume authorized in the applicable Order.

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).

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(B) Dredging¹⁴ Discharges (except Sand Mining-see (C) below) Dredge volume expressed in cubic yards.	\$1,5001,638	N/A	Annual dredge volume in cubic yards x \$0.328358, up to a project maximum of \$430,000142,100. The minimum annual fee is \$1,5001,638.
SPECIAL/FLAT FEE¹⁵			
Discharge Category		Application Fee¹¹	Annual Fee
(C) Sand Mining Dredging Discharges Aggregate extraction in marine waters where source material is free of pollutants and the dredging operation will not violate any basin plan provisions.	\$1,5001,638	\$4,5001,638	\$720819
(D) Ecological Restoration and Enhancement Projects Projects undertaken for the sole 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.	\$400437	\$400437	\$200218
(E) Low Impact Discharges Projects may be classified as low impact discharges if they <u>project meets</u> all of the following criteria: 1. The discharge size is less than all of the following: (a) for fill, 0.1 acre, and 2300 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.	\$1,5001,638	\$1,5001,638	\$200218
(F) Emergency Projects Authorized by a Water Board General Order	\$1,5001,638	\$1,5001,638	\$200218
(G) Amended Orders¹⁶ Amendments of WDRs or water quality certifications previously issued. (1) <u>All category (D) Ecological Restoration and Enhancement Projects, regardless of amendment type.</u> (2a) <u>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. Minor project changes, not requiring technical analysis and involving only minimal processing time.</u> (b) Changes to projects eligible for flat fees (fee categories C and D) where technical analysis is needed to assure continuing eligibility for flat fee and that beneficial uses are still protected. (c) Project changes not involving an increased discharge amount, but requiring some technical analysis to assure that beneficial uses are still protected and that original conditions are still valid, or need to be modified. (3d) <u>Amendment results in 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: -Project changes involving an increased discharge amount and requiring some technical analysis to assure that beneficial uses are still protected and that original conditions are still valid, or need to be modified.</u>	(1a) No fee required (2b) <u>No fee required</u> \$300 flat fee (c) \$200 flat fee (3d) Additional standard fee assessed per increased amount of discharge(s).	(1a) No fee required (2b) <u>No fee required</u> \$300 flat fee (c) \$200 flat fee (3d) Additional standard fee assessed per increased amount of discharge(s).	Annual fee applicable per discharge category

¹⁴ "Dredging" refers to removing sediment or aquatic vegetation in deeper water, 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 reshaped/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 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.

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<ul style="list-style-type: none"> • <u>Amendment increases the active certification's impact quantity by less than 50 percent, and</u> • <u>Amendment does not require a change to the mitigated aquatic resource type.</u> <p>(4e) <u>Amendment requires a supplemental CEQA analysis, or Amendment results in 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: –Major project changes requiring an essentially new analysis and re-issuance of WDRs or water quality certification.</u></p> <ul style="list-style-type: none"> • <u>Amendment increases the active certification's impact quantity by more than 50 percent, or</u> • <u>Amendment requires a change to the mitigated aquatic resource type.</u> 	<p><u>The minimum fee is \$1,638.</u></p>	<p>(4e) <u>New standard fee assessed per new project discharge total. The minimum fee is \$1,638.</u></p>
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(b) The annual fees for persons issued NPDES permits shall be based on the following schedules, plus any applicable surcharge(s).

(1)(A) Each public entity that owns and/or operates a storm water conveyance system, or part of such a system, that is subject to a NPDES permit for storm water discharges from a municipal separate storm sewer system (MS4) shall pay an annual fee according to the following schedule. The fee shall be based on the population of the public entity according to the most recently published United States Census. For public entities other than cities or counties (Non-Traditional Small MS4s^{461Z}), shall pay an annual fee according to the following schedule, based on the average daily population^{471B} using the entities' facilities, unless otherwise provided in the schedule. Flood control districts or other special districts named as co-permittees to MS4 permits and school districts, serving students between kindergarten and fourteenth grade, shall not pay an annual fee if the city or county within whose jurisdiction the district lies, pays an annual fee.

ANNUAL FEE SCHEDULE FOR AREAWIDE MUNICIPAL STORM WATER SEWER SYSTEM PERMITS AND CO-PERMITTEES	
Population equal to or greater than 250,000	\$56,921
Population between 200,000 and 249,999	\$49,805
Population between 150,000 and 199,999	\$42,974
Population between 100,000 and 149,999	\$35,577
Population between 75,000 and 99,999	\$28,461
Population between 50,000 and 74,999	\$21,344
Population between 25,000 and 49,999	\$14,230
Population between 10,000 and 24,999	\$8,539
Population between 1,000 and 9,999	\$5,692
Less than 1,000 population	\$2,847
Statewide Permit Holders	\$227,682
High Speed Rail Authority	\$133,500

^{461Z} 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)).

^{471B} Total daily population must include resident and commuter populations. For community services districts, total daily population must include resident population and non-residents regularly employed in the areas served by the district.

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(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.

(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 costs⁴⁸¹⁹ 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. 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 plus \$42 per acre (rounded to the nearest whole acre and dollar amount), to a maximum fee of \$6,700, 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.

(5) Discharges associated with mosquito and vector control activities⁴⁹²⁰ 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 ~~\$244~~250. Dischargers filing an application for a mosquito and vector control permit shall pay a fee of ~~\$244~~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	\$400 <u>110</u>	No Annual Fee
1,000 – 9,999	\$600 <u>550</u>	\$500 <u>550</u>

⁴⁸¹⁹ These costs include labor, state board and regional board administrative costs, and overhead costs.

⁴⁹²⁰ 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.

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10,000+	\$2,0622,268	\$2,0622,268
Transmission System or Water Wholesaler	\$2,0622,268	\$2,0622,268

Dischargers with Multiple Systems		
Total Number of Service Connections	Application Fee	Annual Fee ²⁰²¹
15 – 999	\$400110	No Annual Fee
1,000 – 9,999	\$500550	\$500550 per Primary System fee plus \$100-110 per Secondary System
10,000+	\$2,0622,268	\$2,0622,268 per Primary System fee plus \$100110 per Secondary System
Transmission System or Water Wholesaler System	\$2,0622,268	\$2,0622,268 per Primary System fee plus \$100110 per Secondary System

(7) 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)(8), (b)(9), and (c), shall pay a fee according to the following formula:

Fee equals ~~\$2,0622,268~~ plus ~~3,6464,011~~ multiplied by the permitted flow, in mgd, with a maximum fee of ~~\$515,537,567,091~~ plus any applicable surcharge(s).

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

NPDES permitted industrial discharges²⁴²² with a threat/complexity²²²³ 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.

²⁰²¹ 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.

²⁴²² 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).

²²²³ Threat/complexity categories are listed under (a)(1) of this document.

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(8)(A) Flow for wet weather municipal facilities²³²⁴ will be based on the previous five years' actual monthly average flow²⁴²⁵, as of the date the permit is issued.

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

(9) All other general NPDES permits and de minimis discharges²⁶²⁶ that are regulated by an individual or general NPDES permit, including those issued by a regional board, shall pay a fee as follows:

Category 1 – Discharges that require treatment systems to meet priority toxic pollutant limits and that could impair beneficial uses if limits are violated: \$11,877,13,065

Category 2 – Discharges that require treatment systems to meet non-priority pollutant limits, but are not expected to impair beneficial uses if limits are violated. Examples of non-priority pollutants include, but are not limited to, nutrients, inorganic compounds, pH, and temperature: \$7,177,895

Category 3 – Discharges that require minimal or no treatment systems to meet limits and pose no significant threat to water quality: \$2,062,268

²³²⁴ Wet weather municipal facilities are intermittently operated facilities that are designated specifically to handle flows during wet weather conditions.

²⁴²⁵ 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.

²⁶²⁶ 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.



State Water Resources Control Board

REVISED **NOTICE OF** **STAFF PUBLIC WORKSHOP AND ADOPTION MEETING** **PROPOSED AMENDMENT TO THE STATEWIDE INDUSTRIAL** **GENERAL STORM WATER PERMIT ¹**

NOTICE IS HEREBY GIVEN that the State Water Resources Control Board (State Water Board) will hold a staff workshop to ~~receive public input and comments on provide information and respond to technical questions regarding~~ the proposed amendment to the Statewide Industrial General Storm Water Permit (General Permit), ~~and the revisions made per including recent revisions made in response to previously-submitted~~ public comments. The proposed General Permit Amendment addresses the implementation of previously-adopted Total Maximum Daily Loads (TMDLs), the new federal Sufficiently Sensitive Methods Rule, and statewide Compliance Options.

State Water Board staff will hold a staff workshop on this matter on:

Wednesday, October 24, 2018
9:00 a.m.-12:00 p.m.
Joe Serna Jr. - CalEPA Headquarters Bldg.
Byron Sher Auditorium
1001 I Street, Second Floor
Sacramento, CA, 95814

A quorum of the State Water Board may be present at the workshop; however, no State Water Board actions will be taken at the workshop. The deadline for written comments for the amendments to the General Permit closed on February 14, 2018, but staff will be conducting this workshop to assist the public in understanding the proposed amendments. No new evidence will be accepted at the staff workshop.

Further information regarding the staff workshop is located on the State Water Board Industrial Storm Water Program webpage at:
https://www.waterboards.ca.gov/water_issues/programs/stormwater/tmdl_igp.shtml.

¹ Draft Amendment to the Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for the Discharge of Storm Water Associated with Industrial Activities

FELICIA MARCUS, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

NOTICE IS ADDITIONALLY HEREBY GIVEN that the State Water Board will consider the adoption of the General Permit Amendment at its regularly scheduled Board meeting on:

Tuesday, November 6, 2018 - 9:30 a.m.
Joe Serna Jr. - CalEPA Headquarters Bldg.
Coastal Hearing Room
1001 I Street, Second Floor
Sacramento, CA 95814

Additional information on the public meeting is located on the State Water Board web site at: https://www.waterboards.ca.gov/board_info/calendar/.

For any questions regarding the State Water Board staff workshop or the State Water Board adoption meeting, please contact Ms. Shuka Rastegarpour at (916) 341-5576 or shuka.rastegarpour@waterboards.ca.gov.

WEBCAST INFORMATION

Video and audio broadcasts of the staff workshop and the public meeting will be available via the internet and can be accessed at: <https://video.calepa.ca.gov/>. Both the staff workshop and the public meeting will be recorded.

BACKGROUND

On April 1, 2014, the State Water Board adopted Order 2014-0057-DWQ for statewide regulation of storm water discharges associated with industrial activities (General Permit). The General Permit includes a reopener for the State Water Board to incorporate Total Maximum Daily Load (TMDL) implementation requirements through a future permit amendment (Sections VII.A.1 and XX.A of the General Order). The proposed General Permit Amendment incorporates requirements that implement existing TMDLs adopted by the San Francisco Bay, Santa Ana, Los Angeles, and San Diego Regional Water Quality Control Boards identifying industrial storm water as a source of the receiving water impairment.

On August 19, 2014, the United States Environmental Protection Agency (U.S. EPA) promulgated the new *Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting Rule* for discharges regulated by NPDES permits. The new Rule became effective on September 18, 2014, after the existing Statewide Industrial General Permit was adopted. The new Rule requires NPDES permittees to use "sufficiently sensitive" analytical test methods for the analyses of regulated pollutants or pollutants parameters. The proposed General Permit Amendment includes revised monitoring and reporting requirements for industrial storm water sampling consistent with the new Rule.

Per existing General Permit requirements, the Regional Water Boards released draft TMDL implementation language in March 2016 for public comments prior to submitting the draft language to the State Water Board for consideration. In December 2016, State Water Board staff held focused stakeholder meetings with interested parties that submitted public comments regarding the Regional Water Boards' draft TMDL-implementation language during the March 2016 public comment period. During subsequent collaborative stakeholder meetings, the proposed statewide compliance options were initially proposed by stakeholders and further developed by staff. The proposed General Permit Amendment includes statewide compliance options to allow permit compliance through onsite and/or regional storm water capture best management practices, in lieu of conventional compliance with numeric action levels and numeric effluent limitations.

The draft amendment to the General Permit and supporting documentation was released to the public on December 15, 2017. Following a series of staff workshops in December 2017, a public comment period for the proposed General Permit Amendment was held, starting on January 5, 2018, December 15, 2017, with a deadline of February 14, 2018. A State Water Board Hearing was held on January 9, 2018, for staff to discuss the scope of the released proposed Amendment, and for the Board to hear verbal/oral public comments prior to the written public comment due date.

DOCUMENT AVAILABILITY

The proposed General Permit Amendment, including recent revisions to the amendment made in response to public comments, and corresponding information is available on the State Water Board web site at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.shtml.

PROCEDURAL MATTERS FOR THE STAFF WORKSHOP

At the staff workshop, participants will be given an opportunity to ask technical questions of State Water Board staff.

PROCEDURAL MATTERS FOR THE ADOPTION MEETING

At the State Water Board adoption meeting, participants will be given an opportunity to summarize their comments in oral presentations. No new evidence (e.g. photographs, data, testimony) may be submitted at the adoption meeting and all comments will be treated as non-evidentiary policy statements. To ensure a productive and efficient meeting in which all participants have an opportunity to participate, oral presentations may be time-limited. Participants planning to use a Power Point presentation must submit the file electronically, in .ppt. format, to the Clerk via email at commentletters@waterboards.ca.gov, no later than 12:00 p.m. (noon) on Thursday, November 1, 2018. Please indicate in the subject line "Power Point Presentation – Industrial General Permit Amendment Adoption Meeting."

For presentation recommendations, go to:

https://www.waterboards.ca.gov/board_info/meetings/board_presentations.html at our website.

FUTURE NOTICES

Any person desiring to receive future notices concerning the proposed amendment, including any changes to this public notice, must sign up on the Lyris e-mail list. To sign up for the Lyris list, access the email List Subscription Form at the web address listed below, click the "Water Quality" tab, and check the box for "Storm Water Industrial Permitting Issues," then fill in the required information. The subscription form is located at:

http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml.

PARKING AND ACCESSIBILITY

For directions to the Joe Serna, Jr. (CalEPA) Building and public parking information, please refer to the map on the State Water Board website:

<http://www.calepa.ca.gov/headquarters-sacramento/location/>.

The CalEPA Building is accessible to persons with disabilities. Individuals requiring special accommodations are requested to call (916) 341-5254 at least 5 working days prior to the meeting. Telecommunications Device for the Deaf (TDD) users may contact the California Relay Service at (800) 735-2929 or voice line at (800) 735-2922.

All visitors to the CalEPA Building are required to sign in and obtain a badge at the Visitor Services Center located just inside the main entrance (10th Street entrance). Valid picture identification may be required. Please allow up to 15 minutes for receiving security clearance.

ADDITIONAL INFORMATION

Please direct questions about this notice to Ms. Shuka Rastegarpour at (916) 341-5576 or shuka.rastegarpour@waterboards.ca.gov.

October 2, 2018

Date



Jeanine Townsend
Clerk to the Board

State Water Resources Control Board

FREQUENTLY ASKED QUESTIONS

Proposed Amendment to the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Industrial Activities¹

1. What is the Scope of the Proposed General Permit Amendment (proposed Amendment)?

The State Water Resources Control Board (State Water Board) will hold a public meeting on November 6, 2018 to consider adoption of the proposed Amendment. The scope of the proposed Amendment includes the following:

- Implementation of Total Maximum Daily Loads (TMDLs) listed in Attachment E of the existing General Permit

TMDLs are existing sets of regulatory requirements in Regional Water Quality Control Board (Regional Water Board) Basin Plans that address restoration of impaired water bodies. The proposed Amendment includes new permitting requirements to implement TMDLs listed in Attachment E of the General Permit. Industrial storm water dischargers identified as a source in existing TMDLs are required to comply with the TMDL requirements and are referred to as Responsible Dischargers in the proposed Amendment.

In addition to continuing to comply with applicable General Permit requirements, including Numeric Action Levels, the proposed Amendment requires Responsible Dischargers to comply with TMDL-specific Numeric Action Levels (TNALs) and/or Numeric Effluent Limitations (NELs). The proposed TNALs and NELs are pollutant-and water body-specific, and are based on the water body criteria applicable to the TMDL.

The industrial pollutant source assessment required in the General Permit identifies the pollutants in a facility's industrial storm water discharge. Industrial storm water samples collected at the facility are required to be compared to pollutant-specific NALs in the General Permit. Exceedances of TNALs, as defined in the proposed Amendment, require implementation of Exceedance Response Actions. Exceedances of NELs, as defined in the proposed Amendment, are violations of the General Permit, are subject to Water Quality Based Corrective Actions, and, in some cases, mandatory minimum penalties may be required to be assessed as detailed in Water Code section 13385.

See Section II.F of the proposed Amendment's General Permit Fact Sheet for further details.

¹ Proposed Amendment to Order 2014-0057-DWQ amended by Order 2015-0122-DWQ, NPDES General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit)

- Proposed compliance incentives for industrial storm water capture

Attachment I of the proposed Amendment includes new compliance options to incentivize storm water capture; the proposed compliance options include on-site and off-site storm water capture. Dischargers choosing to implement the proposed on-site compliance option are required to implement best management practices (BMPs) that capture, infiltrate, divert, and/or evapotranspire the volume of runoff produced up to and during the 85th percentile 24-hour precipitation event based upon local, historical precipitation data and records. Dischargers choosing to implement the proposed off-site compliance option would enter into a local agreement with the appropriate municipalities or other entities to participate in the development, implementation, and operation of the regional storm water capture BMP or BMPs receiving the industrial storm water discharges.

Dischargers meeting all requirements for implementation of one of the proposed compliance options will be in compliance with or deemed in compliance with a variety of the General Permit's technology and water quality based requirements, including those related to TMDL implementation, and excused from others. See Sections I, II.I, and III.F of the proposed Amendment's Attachment I for further details.

- Federally-promulgated sufficiently sensitive analytical method requirements

The United States Environmental Protection Agency (U.S. EPA) issued updates to the Clean Water Act via the Federal Register on August 19, 2014, to require the use of analytical methods capable of measuring or detecting pollutants at levels specified in NPDES permits. This proposed Amendment incorporates federally-required regulations and requires dischargers to use federally required analytical methods that are sufficiently sensitive to detect and measure pollutants at or below the applicable water quality criteria, action level, or effluent limitation (whichever is lower), as specified in this General Permit.

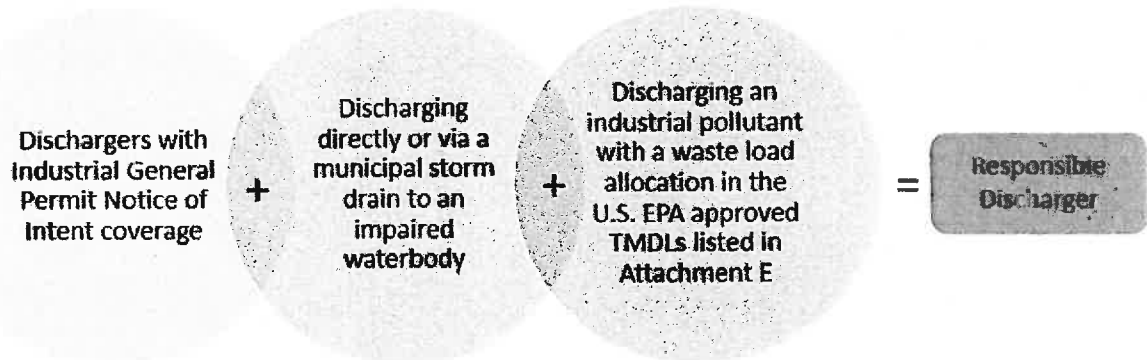
2. **What are TMDLs and why are they being included in the General Permit?**

Regional Water Boards adopt water quality objectives to protect beneficial uses of surface waters, such as municipal and domestic water supply, aquatic life spawning, and other aquatic life-based and human health-based uses. The Clean Water Act requires Regional Water Boards to periodically assess water quality and identify those not meeting quality standards and objectives and list those waters as impaired on the 303(d) list. To address impaired waters, the Regional Water Boards must develop a TMDL, which establishes maximum allowable loads to sources of pollutants. TMDLs are typically incorporated into the Regional Water Board Basin Plans. A TMDL establishes pollutant-specific regulatory waste load allocations to identified dischargers (or types of discharges) to restore the impaired water bodies listed on the Clean Water Act section 303(d) list. A TMDL is not self-implementing so the State and Regional Water Boards are required² to implement TMDLs through permits, enforcement orders, and/or Water Code section 13267 or 13383 Orders. The proposed Amendment incorporates the necessary TMDL-related requirements based on the corresponding TMDL waste load allocations and other requirements to implement TMDLs that identify industrial storm water discharges as a source of the impairments. The proposed TMDL-related requirements differ from the existing technology-based standards in the existing General Permit because they are water quality based and not based on technical achievability and/or feasibility.

² Required in the 40 Code of Federal Regulations section 130.7. (40 C.F.R. § 122.44(d)(1)(vii).)

3. Who is required to comply with the proposed TMDL implementation requirements?

Responsible Dischargers, as defined in Attachment C (Glossary) of the Proposed General Permit Amendment are required to comply with applicable TMDL requirements. Below is a graphical representation of this definition:



4. What changes have been made to the December 15, 2017, proposed Amendment compared to the September 26, 2018, proposed Amendment?

- Clarified that the TNAL are BMP-based Water Quality Based Effluent Limitations;
- Refined definition of Responsible Discharger;
- Added definitions of key terms used in the proposed Amendment to the Order and the Glossary;
- Clarified the TNAL Exceedance Response Action (ERA) process;
- Clarified the watershed/water body scope of applicability each TMDL addresses, including whether the discharge requirements are assigned: 1) at the watershed scale, 2) to direct discharges into a specific water body, or 3) to direct discharges into a specific water body and its tributaries;
- Added more detail to reasoning for incorporating TMDL requirements as NELs, TNALs, or no additional requirements
- Changed seven TMDL translations from NELs to compliance through existing General Permit requirements;
- Changed four TMDL translations from TNALs to compliance through existing General Permit requirements;
- Changed seven TMDL translations from TNALs to NELs;
- Corrected and clarified TMDL compliance deadlines;
- Clarified Sufficiently Sensitive Test Method requirements; and
- Refined Attachment I (Compliance Options) requirements.

5. How can I stay informed?

- Visit the proposed Amendment web page: https://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.html, and
- Subscribe to the "Storm Water Industrial Permitting Issues" Lyris under the "Water Quality" category: https://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.html.

As specified in the September 26, 2018 Public Notice, the public is welcome to participate in the following opportunities related to the proposed Amendment:

- October 24, 2018: State Water Board staff will be hosting a public workshop in Sacramento, and
- November 6, 2018: The State Water Board meeting to consider adoption of the proposed Amendment.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FACT SHEET FOR
STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
NPDES NO. CAS000001**

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I. BACKGROUND

A. Purpose

The purpose of this Fact Sheet is to explain the legal requirements and technical rationale that serve as the basis for the requirements of this Order 2014-0057-DWQ (General Permit), adopted by the State Water Resources Control Board (State Water Board) on April 1, 2014. This General Permit regulates operators of facilities subject to storm water permitting (Dischargers), that discharge storm water associated with industrial activity (industrial storm water discharges). This General Permit replaces Water Quality Order 97-03-DWQ. This Fact Sheet does not contain any independently-enforceable requirements; the General Permit contains all of the actual requirements applicable to Dischargers. In case of any conflict between the Fact Sheet and the General Permit, the terms of the General Permit govern.

B. History

The Federal Clean Water Act (CWA)¹ prohibits discharges from point sources to waters of the United States, unless the discharges are in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. (CWA § 301(a).) In 1987, the CWA was amended to establish a framework for regulating municipal storm water discharges and discharges of storm water associated with industrial activity (industrial storm water discharges) under the NPDES program. (CWA § 402(p).) In 1990, the United States Environmental Protection Agency (U.S. EPA) promulgated regulations, commonly known as Phase I, establishing application requirements for storm water permits for specified categories of industries. (40 C.F.R. § 122.26.) In 1992, U.S. EPA revised the monitoring requirements for industrial storm water discharges. (40 C.F.R. § 122.44(i)(2), (4), (5).) In 1999, U.S. EPA adopted additional storm water regulations, known as Phase II. (64 Fed. Reg. 68722.) The Phase II regulations provide for, among other things, a conditional exclusion from NPDES permitting requirements for industrial activities that have no exposure to storm water.

Industrial storm water discharges are regulated pursuant to CWA section 402(p)(3)(A). This provision requires NPDES permits for industrial storm water discharges to implement CWA section 301, which includes requirements for Dischargers to comply with technology-based effluent limitations, and any more stringent water quality-based limitations necessary to meet water quality standards. Technology-based effluent limitations applicable to industrial activities are based on best conventional pollutant control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. (CWA § 301(b)(1)(A) and (2)(A).) To ensure compliance with water quality standards, NPDES permits may also require a Discharger to implement best management practices (BMPs). 40 Code of Federal Regulations section 122.44(k)(4) requires the use of BMPs to control or abate the discharge of pollutants when numeric effluent limitations (NELs) are infeasible. The State Water Board has concluded that it is infeasible to establish NELs for storm water discharges associated with industrial activity due to insufficient information at the time of adoption of this General Permit.

¹ Federal Water Pollution Control Act of 1970 (also referred to as the Clean Water Act or CWA), 33 U.S.C. § 1201 et seq. All further statutory references herein are to the CWA unless otherwise indicated.

Order 2014-0057-DWQ amended by Order 2015-0122-DWQ & Order 20XX-XXXX-DWQ

On April 17, 1997, the State Water Board issued NPDES General Permit for Industrial Storm Water Discharges, Excluding Construction Activities, Water Quality Order 97-03-DWQ (previous permit). This General Permit, Order 2014-0057-DWQ rescinds the previous permit and serves as the statewide general permit for industrial storm water discharges. The State Water Board concludes that significant revisions to the previous permit requirements are necessary for implementation, consistency and objective enforcement. As discussed in this Fact Sheet, this General Permit requires Dischargers to:

- Eliminate unauthorized non-storm water discharges (NSWDs);
- Develop and implement storm water pollution prevention plans (SWPPPs) that include best management practices (BMPs);
- Implement minimum BMPs, and advanced BMPs as necessary, to achieve compliance with the effluent and receiving water limitations of this General Permit;
- Conduct monitoring, including visual observations and analytical storm water monitoring for indicator parameters;
- Compare monitoring results for monitored parameters to applicable numeric action levels (NALs) derived from the U.S. EPA 2008 Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (2008 MSGP) and other industrial storm water discharge monitoring data collected in California;
- Perform the appropriate Exceedance Response Actions (ERAs) when there are exceedances of the NALs; and,
- Certify and submit all permit-related compliance documents via the Storm Water Multiple Application and Report Tracking System (SMARTS). Dischargers shall certify and submit these documents which include, but are not limited to, Permit Registration Documents (PRDs) including Notices of Intent (NOIs), No Exposure Certifications (NECs), and Storm Water Pollution Prevention Plans (SWPPPs), as well as Annual Reports, Notices of Termination (NOTs), Level 1 ERA Reports, and Level 2 ERA Technical Reports.

C. Blue Ribbon Panel of Experts (Panel)

In 2005 and 2006, the State Water Board convened a Blue Ribbon Panel of Experts (Panel) to address the feasibility of NELs in California's storm water permits. Specifically, the Panel was charged with answering the following questions:

Is it technically feasible to establish numeric effluent limitations, or some other quantifiable limit, for inclusion in storm water permits?

How would such limitations or criteria be established, and what information and data would be required?²

The Panel was directed to answer these questions for industrial storm water discharge general permits, construction storm water discharge general permits, and area-wide municipal storm water discharge permits. The Panel was also directed to address both technology-based and water quality based limitations and criteria.

In evaluating the establishment of numeric limitations and criteria, the Panel was directed to consider all of the following:

- The ability of the State Water Board to establish appropriate objective limitations or criteria;
- How compliance is to be determined;
- The ability of Dischargers and inspectors to monitor for compliance; and
- The technical and financial ability of Dischargers to comply with the limitations or criteria.

Following an opportunity for public comment, the Panel identified several water quality concerns, public process and program effectiveness issues. A summary of the Panel's recommendations regarding industrial storm water discharges follows:³

- Current data are inadequate; accordingly, the State Water Board should improve monitoring requirements to collect useful data for establishing NALs and NELs.
- Required parameters for further monitoring should be consistent with the type of industrial activity (i.e., monitor for heavy metals when there is a reasonable expectation that the industrial activity will contribute to increased heavy metals concentrations in storm water).
- Insofar as possible, the use of California data (or national data applicable to California) is preferred when setting NELs and NALs.
- Industrial facilities that do not discharge to Municipal Separate Storm Sewer Systems (MS4s) should implement BMPs for their non-industrial exposure (e.g., parking lots, roof runoff) similar to BMPs implemented by commercial facilities in MS4 jurisdictions.

² State Water Board Storm Water Panel of Experts, *The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities* (June 19, 2006).

<http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_final_report.pdf>.
[as of February 4, 2014].

³ See footnote 2.

Order 2014-0057-DWQ amended by Order 2015-0122-DWQ & Order 20XX-XXXX-DWQ

- In all cases, Dischargers should implement a suite of minimum BMPs, including, but not limited to, good housekeeping practices, employee training, and preventing exposure of materials to rain.
- Standard Industrial Classification (SIC) code categories are not a satisfactory way of identifying industrial activities at any given site. The State Water Board should develop an improved method of characterizing industrial activities that will improve water quality in storm water.
- Recognizing that implementing the Panel's suggested changes is a large task, the State Water Board should set priorities for implementation of the Panel's suggested approach in order to achieve the greatest reduction of pollutants statewide.
- Recognizing that an increasing number of industries have moved industrial activities indoors to prevent storm water pollution, such facilities should be granted regulatory relief from NALs and/or NELs, but should still be required to comply with any applicable MS4 permit requirements.
- Recognizing the need for improved monitoring and reduction of pollutants in industrial storm water discharges, the State Water Board should consider the total economic impact of its requirements to not economically penalize California industries when compared to industries outside of California.

With regard to the industrial activities component of its charge, the Panel limited its focus to the question of whether sampling data can be used to derive technology-based NELs. The Panel did not address other factors or approaches that may relate to the task of determining technology- and water quality-based NELs consistent with the regulations and law. Examples of these other factors are discussed in more detail in this Fact Sheet. Additionally, in its final report the Panel did not clearly differentiate between the role of numeric and non-numeric effluent limitations, nor did it consider U.S. EPA procedures used to promulgate effluent limitation guidelines (ELGs) in 40 Code of Federal Regulations, Chapter I, Subchapter N (Subchapter N).

D. Summary of Significant Changes in this General Permit

The previous permit issued by the State Water Board on April 17, 1997, had been administratively extended since 2002 until the adoption of this General Permit. Significant revisions to the previous permit were necessary to update permit requirements consistent with recent regulatory changes pertaining to industrial storm water under the CWA. This General Permit differs from the previous permit in the following areas:

1. Minimum Best Management Practices (BMPs)

This General Permit requires Dischargers to implement a set of minimum BMPs. Implementation of the minimum BMPs, in combination with any advanced BMPs (BMPs, collectively,) necessary to reduce or prevent pollutants in industrial storm water discharges, serve as the basis for compliance with this General Permit's

technology-based effluent limitations and water quality based receiving water limitations. Although there is great variation in industrial activities and pollutant sources between industrial sectors and, in some cases between operations within the same industrial sector, the minimum BMPs specified in this General Permit represent common practices that can be implemented by most facilities.

The previous permit did not require a minimum set of BMPs but rather allowed Dischargers to consider which non-structural BMPs should be implemented and which structural BMPs should be considered for implementation when non-structural BMPs are ineffective.

This General Permit requires Dischargers to implement minimum BMPs (which are mostly non-structural BMPs), and advanced BMPs (which are mostly structural BMPs) when implementation of the minimum BMPs do not meet the requirements of the General Permit. Advanced BMPs consists of treatment control BMPs, exposure reduction BMPs, and storm water containment and discharge reduction BMPs. BMPs that exceed the performance expectation of minimum BMPs are considered advanced BMPs. Dischargers are encouraged to utilize advanced BMPs that infiltrate or reuse storm water where feasible.

The minimum and advanced BMPs required in this General Permit are consistent with U.S. EPA's 2008 Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (2008 MSGP), guidance developed by the California Stormwater Quality Association, and recommendations by Regional Water Quality Control Board (Regional Water Board) inspectors. Dischargers are required to evaluate BMPs being implemented and determine an appropriate interval for the implementation and inspection of these BMPs.

2. Conditional Exclusion - No Exposure Certification (NEC)

This General Permit applies U.S. EPA Phase II regulations regarding a conditional exclusion for facilities that have no exposure of industrial activities and materials to storm water. (40 C.F.R. § 122.26(g).) (The previous permit required light industries to obtain coverage only if their activities were exposed to storm water.) This General Permit implements current U.S. EPA rules allowing any type of industry to claim a conditional exclusion. The NEC requires enrollment for coverage prior to conditionally excluding a Discharger from a majority of this General Permit's requirements.

3. Electronic Reporting Requirements

This General Permit requires Dischargers to submit and certify all reports electronically via SMARTS. The previous permit used a paper reporting process with electronic reporting as an option.

4. Training Expectations and Roles

This General Permit requires that Dischargers arrange to have appropriately trained personnel implementing this General Permit's requirements at each facility. In

addition, if a Discharger's facility enters Level 1 status, the Level 1 ERA Report must be prepared by a Qualified Industrial Storm Water Practitioner (QISP). All Action Plans and Technical Reports required in Level 2 status must also be prepared by a QISP.

Dischargers may appoint a staff person to complete the QISP training or may contract with an outside QISP. QISP training is tailored to persons with a high degree of technical knowledge and environmental experience. Although QISPs do not need to be California licensed professional engineers, it may be necessary to involve a California licensed professional engineer to perform certain aspects of the Technical Reports.

5. Numeric Action Levels (NALs), TMDL-Numeric Action Levels (TNALs)⁴ and NAL/TNAL Exceedances

This General Permit contains two types of NAL exceedances (instantaneous maximum and annual), and one type of TNAL exceedance (instantaneous maximum). An annual NAL exceedance occurs when the average of all sampling results within a reporting year for a single parameter (except pH) exceeds the applicable annual NAL. The annual NALs are derived from, and function similarly to, the benchmark values provided in the 2008 MSGP. Instantaneous maximum NALs target hot spots or episodic discharges of pollutants. An instantaneous maximum NAL/TNAL exceedance occurs when two or more analytical results from samples taken for any parameter within a reporting year exceed the applicable instantaneous maximum NAL/TNAL value. Instantaneous maximum NALs for Total Suspended Solids (TSS) and Oil and Grease (O&G) are based on previously gathered California industrial storm water discharge monitoring data. The instantaneous maximum NAL for pH is derived from the benchmark value provided in the 2008 MSGP. The TMDL-specific TNALs are in Attachment E TMDL Table E-2 and were derived from the TMDL-specific WLA translations.

6. Exceedance Response Actions (ERA)

This General Permit requires Dischargers to develop and implement ERAs, when an annual NAL or instantaneous maximum NAL/TNAL exceedance occurs during a reporting year. The first time an annual NAL or instantaneous maximum NAL/TNAL exceedance occurs for any one parameter, a Discharger's status is changed from Baseline to Level 1 status, and the Discharger is required to evaluate and revise, as necessary, its BMPs (with the assistance of a QISP) and submit a report prepared by a QISP. The second time an annual NAL or instantaneous maximum NAL/TNAL exceedance occurs for the same parameter in a subsequent reporting year, the Discharger's status is changed from Level 1 to Level 2 status, and Dischargers are required to submit a Level 2 ERA Action Plan and a Level 2 ERA Technical Report. Unless the demonstration is not accepted by the State Water Board or a Regional

⁴ The acronym TNAL is used for TMDL-specific numeric action levels rather than the acronym NAL to differentiate TMDL-specific requirements from the generally applicable requirements set forth in Table 2 of this General Permit's Order. TNALs are applicable only to Responsible Dischargers.

Water Board, the Discharger is not required to perform additional ERA requirements for the parameter(s) involved if the Discharger demonstrates that:

- a. Additional BMPs required to eliminate NAL/TNAL exceedances are not technologically available or economically practicable and achievable; or,
- b. NAL/TNAL exceedances are solely caused by non-industrial pollutant sources; or,
- c. NAL/TNAL exceedances are solely attributable to pollutants from natural background sources.

Information supporting the above demonstrations must be included in QISP-prepared Level 2 ERA Technical Reports.

7. CWA section 303(d) Impairment

This General Permit requires a Discharger to monitor additional parameters if the discharge(s) from its facility contributes pollutants to receiving waters that are listed as impaired for those pollutants (CWA section 303(d) listings). This General Permit lists the receiving waters that are 303(d) listed as impaired for pollutants that are likely to be associated with industrial storm water in Appendix 3. For example, if a Discharger discharges to a water body that is listed as impaired for copper, and the discharge(s) from its facility has the potential sources of copper, the Discharger must add copper to the list of parameters to monitor in its storm water discharge.

8. Design Storm Standards for Treatment Control BMPs

This General Permit includes design storm standards for Dischargers implementing treatment control BMPs. The design storm standards include both volume- and flow-based criteria. Dischargers are not required to retrofit existing treatment control BMPs unless required to meet the technology-based effluent limitations and receiving water limitations in this General Permit.

9. Qualifying Storm Event (QSE)

This General Permit defines a QSE as a precipitation event that:

- a. Produces a discharge for at least one drainage area; and,
- b. Is preceded by 48 hours with no discharge from any drainage area.

The definition above differs from the definition in the previous permit, resulting in an increase number of QSEs eligible for sample collection. Therefore, most Dischargers will be able to collect the required number of samples, regardless of their facility location.

10. Sampling Protocols

This General Permit requires Dischargers to collect samples during scheduled facility operating hours from each drainage location within four hours of: (1) the start of the discharge from a QSE occurring during scheduled facility operating hours, or (2) the

start of scheduled facility operating hours if the QSE occurred in the previous twelve (12) hours. The benefits of this sampling protocol: (a) allows a more reasonable amount of time to collect samples, (b) increases the likelihood for samples collected at discharge locations to be representative of the drainage area discharge characteristics, (c) increases the number of QSEs eligible for sample collection, and, (d) reduces the likelihood of Dischargers collecting samples with short-term concentration spikes.

The previous permit required that Dischargers collect grab samples during the first hour of discharge that commenced during scheduled facility operating hours. These sample collection requirements were widely considered to be too rigid and out of step with other states' sample collection requirements. Since many storm events begin in the evening or early morning hours, numerous opportunities to collect samples were lost because Dischargers could not obtain samples during the first hour of discharge. Dischargers with facilities that have multiple discharge locations had difficulties collecting samples within such a short timeframe therefore affecting data quality.

11. Sampling Frequency

This General Permit increases the sampling frequency by requiring the Discharger to collect and analyze storm water samples from each discharge location for two (2) QSEs within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30). The increased sampling, compared to the previous permit's two samples during the wet season, is consistent with the 2008 MSGP and other states' permit requirements and will improve compliance determination with this General Permit. The State Water Board expects that the elimination of the wet season sampling requirements will increase the number of possible QSEs eligible for monitoring.

12. Compliance Groups

To allow industrial facilities to efficiently share knowledge, skills and resources towards achieving General Permit compliance, this General Permit allows the formation of Compliance Groups and Compliance Group Leaders. Dischargers participating in a Compliance Group (Compliance Group Participants) are collectively required to sample twice a year. Compliance Group Leaders are required to be approved through the State Water Board-approved training program process, inspect each facility once within each reporting year, and prepare Level 1 and Level 2 ERA reports as necessary. The Compliance Group option is described in more detail in General Permit section XIV and in this Fact Sheet in the Section titled "Compliance Groups."

13. Discharges to Ocean Waters

This General Permit requires Dischargers with ocean-discharging outfalls subject to model monitoring provisions of the California Ocean Plan to develop and implement a monitoring plan in compliance with those provisions and any additional monitoring requirements established pursuant to Water Code section 13383. Dischargers who have not developed and implemented a monitoring program in compliance with the California Ocean Plan model monitoring provisions by July 1, 2015 or seven (7) days prior to commencing operations, whichever is later, are ineligible to obtain coverage under this General Permit.

14. Amendment to Incorporate TMDL-related Requirements, Update Analytical Testing Requirements, and Provide Compliance Options

Through Order 2018-XXXX-DWQ, the State Water Board amended this General Permit. The amendment includes: (1) The addition of TMDL-related permit requirements (Attachment E), (2) incorporation of new U.S. EPA sufficiently sensitive methods (SSM) analytical testing requirements, and (3) addition of two compliance options available to Dischargers statewide (see Attachment I).

II. TECHNICAL RATIONALE FOR REQUIREMENTS IN THIS GENERAL PERMIT

A. Receiving General Permit Coverage

1. This General Permit provides regulatory coverage for new and existing industrial storm water discharges and authorized NSWDS from:
 - a. Facilities required by federal regulations to obtain an NPDES permit;
 - b. Facilities designated by the Regional Water Boards to obtain an NPDES permit; and,
 - c. Facilities directed by the Regional Water Boards to obtain coverage specifically under this General Permit. The Regional Water Board typically directs a Discharger to change General Permit coverage under two circumstances:
 - (1) switch from an individual NPDES permit to this General Permit, or
 - (2) switch from the NPDES General Permit for Storm Water Discharges Associated with Construction And Land Disturbance Activities, (Order 2009-0009-DWQ, NPDES No CAS000002 (to this General Permit for long-term construction related activities that are similar to industrial activities (e.g. concrete batch plants).

40 Code of Federal Regulations section 122.26(b)(14) defines "storm water discharge associated with industrial activity" and describes the types of facilities subject to permitting (primarily by Standard Industrial Classification (SIC) code). This General Permit provides regulatory coverage for all facilities with industrial activities described in Attachment A where the covered industrial activity is the Discharger's primary industrial activity. In some instances, a Discharger may have more than one primary industrial activity occurring at a facility.

The 1987 SIC manual uses the term "establishment" to determine the primary economic activity of a facility. The manual instructs that where distinct and separate economic activities are performed at a single location,



CPSC
California Product
Stewardship Council SM

1822 21st Street, Suite #100
Sacramento, CA 95811
916-706-3420

www.CalPSC.org

California Department of Toxic Substances Control (DTSC)
1001 I Street
P.O. Box 806
Sacramento, CA 95812-0806

Fax No.: 916-323-5542

Subject: Public Records Act Request
Solar Panel Universal Waste Regulations

Records Coordinator,

Pursuant to Government Code Sections 6250-6276.48 (January 2004), please find this request for copies of any letters or other official communications between the DTSC and CalEPA and/or the Federal EPA seeking authorization to designate end-of-life photovoltaic modules (solar panels) that are identified as hazardous waste as a Universal Waste pursuant to regulations currently being drafted in accordance with SB 489 (Monning) (2015) and Article 17 of Chapter 6.5 of Division 20 of the Health and Safety Code commencing with Section 25259.

If you have any questions, please contact me at 916-706-3420 or at Doug@calpsc.org.

Respectfully,

Doug Kobold
Executive Director

Mission: To shift California's product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility in order to reduce public costs and drive improvements in product design that promote environmental sustainability.

Mary Pitto

From: cpsc-associates-listserv@googlegroups.com on behalf of Joanne Brasch
<joanne@calpsc.org>
Sent: Friday, September 14, 2018 4:40 PM
To: Joanne Brasch
Subject: CPSC update -SB 212 webinar and more!

September 12, 2018



CPSC
California Product
Stewardship Council SM

Meds and Sharps

EPR Update

The California legislature passed SB 212 with a 39-0 vote off the Senate floor and it is now awaiting the Governor's signature. This newsletter provides an overview on SB 212 with opportunities to learn more!

All images are hyperlinked to articles and websites.

[SB 212 \(Jackson, Gray, Ting\)](#) would establish a stewardship program, under which a manufacturer or distributor of covered drugs or sharps, or other entity

defined to be covered by the bill, would be required to establish and implement, either on its own or as part of a group of covered entities through membership in a stewardship organization, a stewardship program for covered drugs or for sharps, as applicable.

The Governor has until 9/30/18 at midnight to sign!

See the CPSC [Coalition Sign-on Letter](#) urging Governor Brown to sign SB 212

Use our [model letter](#) to submit your own request to Governor Brown

FIRST IN THE NATION

CLICK FOR PRESS RELEASE

CALIFORNIA
PASSES
STATEWIDE
DRUG & NEEDLE
TAKE-BACK
PAID FOR BY
PRODUCERS

Why is SB 212 unique in the U.S.?

1. This is the only statewide program for needles/sharps and meds!
2. Allows existing ordinances to continue

3. Requires the stewardship organizations to be IRS 501(C)3 orgs for public benefit.

More details will be presented on the webinar!

So please join us!

Links to key SB 212 documents:

- [Final Bill Language](#)
- [SB 212 Background Factsheet](#)
- [Senate EQ Analysis Document](#)
- [Assembly Committee on Environmental Safety and Toxic Materials Analysis](#)

Go to the [CPSC webpage](#) for more bill information

Jointly Hosted
WEBINAR



SB 212
Medicine and Needle
Disposal in California

Register now!


Date:
Tuesday, October 23rd, 2018 at 9 AM – 10:30 AM PT

Registration Cost:
FREE for CPSC and NSAC funders; \$75 for Government
and Nonprofits; \$125 for everyone else

Recent Press on Medicine and Needles



New Study:
Needles in Municipal Solid Waste



Key Findings:

- Needle observations daily
- 4% of MRF workers with needlesticks
- 95% of people improperly dispose of needles



OVERVIEW OF EIGHT MEDICINE DISPOSAL PRODUCTS



April 21, 2017

Community Environmental Health Strategies LLC
for San Francisco Department of the Environment

Analysis conducted by
Margaret Shield, PhD of
Community Environmental
Health Strategies for the San
Francisco Department of the
Environment

For more information
contact
Community Environmental
Health Strategies at
(206) 499-5452



Watch the [KCRA 3](#) segment (above) about piles of discarded needles found near a school in [Stockton, California](#). [SB212](#) would require the manufacturers to set up a convenient statewide take-back program for needles and medicines to prevent scenes like this!

SB 212 in the News

- [Waste 360 \(9/3/18\)](#)
- [Pharmalot \(9/4/18\)](#)
- [Scrap Monster \(9/4/18\)](#)
- [Recycling Product News \(9/6/18\)](#)
- [California City News \(8/30/18\)](#)

Special Thanks



DONATE

**Our important work is supported by funders like you!
Sponsorships are available and donations are welcome to
continue our great work!**

For more information on how to get involved, contact: info@calpsc.org



CPSC
**California Product
Stewardship Council** SM

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

Sacramento, CA 95811

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To reply to this message or send a message to this group, send email to cpsc-associates-listserv@googlegroups.com. Upon sending an email to the entire group, you will receive a delivery failure notice, because the message will automatically await approval from CPSC before it is actually sent to the entire group.

You received this message because you are subscribed to the Google Groups "CPSC Associates Listserv" group. To unsubscribe from this group and stop receiving emails from it, send an email to cpsc-associates-listserv+unsubscribe@googlegroups.com.

To post to this group, send email to cpsc-associates-listserv@googlegroups.com.

For more options, visit <https://groups.google.com/d/optout>.

Mary Pitto

From: California Carpet Stewardship Program <info@carpetrecovery.ccsend.com> on behalf of California Carpet Stewardship Program <jbolden@carpetrecovery.org>
Sent: Wednesday, August 22, 2018 9:19 AM
To: Mary Pitto
Subject: August News: Recycled Carpet Product Catalog Released; 5 Year Plan submitted

Having trouble viewing this email? [Click here](#)



California Carpet Stewardship Program August 2018 Update



California Carpet Stewardship Program

An initiative of CARE: Carpet America Recovery Effort

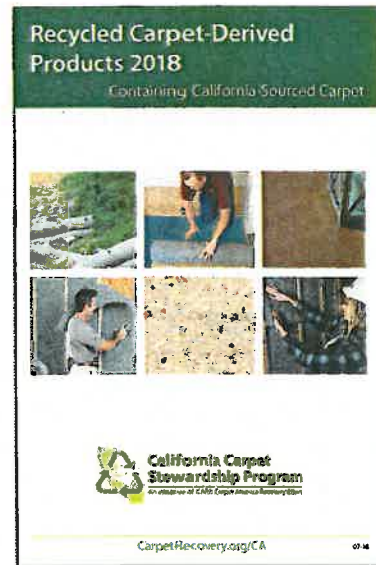
Catalog Highlights Products Made from Recycled California Post-Consumer Carpet

CARE has produced a [catalog](#) highlighting the range of products that contain California-sourced post-consumer recycled carpet. Featured products include insulation, wheelchair ramps, heavy-duty mats, decking, carpet cushion and, yes, carpet. The products would help state agencies to comply with the SABRC mandate and may help businesses trying to obtain environmental certifications such as LEED.

Several products are designated Double Green™, meaning they contain recycled California post-consumer carpet material plus at least one other post-consumer recycled material.

To learn more about products using recycled carpet material and the Double Green™ designation, contact Market Development Consultant [Mike Tinney](#) to request a product presentation, made in collaboration with CalRecycle's tire derived products group.

To order print copies of the catalog, email CA@CarpetRecovery.org. View the catalog [here](#).



CARE Submits Revised Plan to CalRecycle

CARE staff submitted a revised 5 Year Plan to CalRecycle on August 17. The California Carpet Stewardship Advisory Committee submitted seven recommendations on the draft Plan to CalRecycle following an all-day meeting on July 17. This feedback and additional detail was incorporated into the Plan as approved by the Sustainable Planning Committee of CARE. The Plan and CARE's response to CalRecycle's findings are on the CalRecycle website. Submit written comments via email to the CalRecycle Carpet Team at carpet@calrecycle.ca.gov. CalRecycle will announce its recommendation on the Plan's approval at the public meeting on October 16.

CalRecycle determined that further grant funds, that were to be approved for release in May, cannot be distributed until after Plan approval. All other CARE programs (subsidies, technical assistance, etc.) are continuing as normal.

On August 15, CalRecycle issued an accusation claiming that CARE has not met its recycling goals for 2016 as set forth in its Carpet Stewardship Plan. The Department is seeking a penalty of \$5,000 a day for 366 days, totaling \$1.83 million. CARE has 15 days to respond.

CARE Executive Director Bob Peoples noted, "We are focused on reaching a 24% recycling rate by end of next year, and we fully expect to meet or exceed this goal. At the same time, we have submitted a very compelling Plan to CalRecycle."

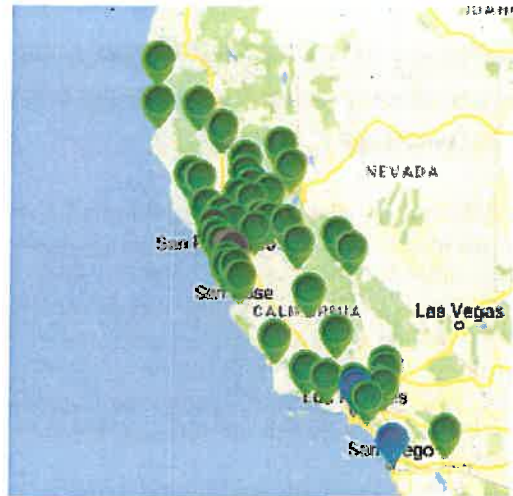
New Drop-Off Site Welcomed

CARE welcomes a new drop-off site:

- **Bay Counties SMaRT Station**, Sunnyvale, Santa Clara County

There are currently 49 CARE-supported drop-off sites in the state. CARE supports drop-off sites by providing:

- A container for collection
- Third-party hauling to bring carpet material to recyclers
- Promotional materials for local government and the hosting facility
- Technical assistance from CARE staff.



Drop-Off Site Map

To see if there is a CARE sponsored drop-off site in your county, visit the drop-off site [map here](#).

In addition to public drop-off sites, CARE works with the recyclers who operate more than 160 private network collection sites around the state.

If you would like to set up a carpet recycling drop-off site, please contact CA@CarpetRecovery.org.

Calaveras County Named Recycling Market Development Zone

CalRecycle has named Calaveras County the state's 40th Recycling Market Development Zone. CalRecycle's RMDZ program combines recycling with economic development to fuel new businesses, expand existing ones, create jobs, and divert valuable material from landfills.

Rock Creek Landfill is a CARE drop-off site in the County. The facility does not charge for the drop-off of dry, debris-free carpet.

The RMDZ program provides loans, technical assistance, and product marketing to businesses that use recyclable materials to manufacture their products within one of California's 40 designated recycling market development zones.

Backstamping Addresses Carpet Fiber Identification Challenges

Currently, most carpets are not easily identifiable visually. Sorting is done by hand, using a specialized infrared device that identifies the face fiber material type. Fiber types include nylon 6, nylon 6,6, polyethylene terephthalate (PET), polytrimethylene terephthalate (PTT), polypropylene (PP), mixed fibers, and natural fibers (e.g. wool).

At this time seven out of the top 10 mills (which sell 93% of all carpet sold annually in California) have implemented back stamping on residential goods and five out of the top 10 mills have implemented on commercial carpet. It will take a decade or more for back stamping to impact the PCC recycle stream, but this step is an important development in improving polymer identification in the future, and facilitating more cost-effective long-term recyclability.

CARE on the Road

CARE's California Carpet Stewardship Program had a presence at two recent important conferences. At the California Resource Recovery Association conference in Oakland, CARE California Program Director Jacy Bolden described progress in carpet recycling in the state by way of a Regional Approach pilot. (View the presentation [here](#).) Cascadia's Jessica Branom-Zwick presented on preliminary results of CARE's convenient collection study, aimed at describing what constitutes convenient carpet collection across the state. (View the presentation [here](#).)



To further market development efforts, CARE was an exhibitor at the GreenerBuilder Conference held August 1 in San Francisco. Staff met with green building industry professionals, who were pleased to learn that post-consumer California carpet is being recycled into a variety of products.

STAY CONNECTED:

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Carpet America Recovery Effort, 100 S. Hamilton Dr., Dalton, GA 30720

[SafeUnsubscribe™ mpitto@rcrcnet.org](#)

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Sent by [jbolden@carpetrecovery.org](#)

Mary Pitto

From: California Carpet Stewardship Program <info@carpetrecovery.ccsend.com> on behalf of California Carpet Stewardship Program <jbolden@carpetrecovery.org>
Sent: Thursday, September 20, 2018 8:48 AM
To: Mary Pitto
Subject: September News: Assessment to Increase

Having trouble viewing this email? [Click here](#)



**California Carpet Stewardship Program
September 2018 Update**



**California Carpet
Stewardship Program**
An Initiative of CARE: Carpet America Recovery Effort

Carpet Assessment to Increase on January 1, 2019

Subject to approval of the Program's 5 Year Plan submitted to CalRecycle in August, the carpet assessment is set to increase on January 1, 2019. The assessment increases to \$0.35 per square yard of carpet sold in the state (from the current \$0.25). The Plan runs through 2022. Should further adjustments be necessary during this time period, CARE will notify retailers as early as possible, with at least 90 days' notice. All California retailers will be informed of the assessment change in a series of communications. Assessment funds support and are mandated by AB 2398 to increase the amount of carpet diverted from landfills and recycled into secondary products.

The full [Plan can be read here](#).

2017 California Carpet Stewardship Program Annual Report Released

The California Carpet Stewardship Program has released its 2017 Annual Report after submitting it to CalRecycle on September 1st.

Highlights from the sixth year of the Program include:

- The recycled output rate (aka "recycling rate") increased from 11% in 2016 to 14% in 2017, a 29% increase.
- Post-Consumer Carpet Calcium Carbonate (PC4) use in recycled products expanded to over 10.5 million pounds, reaching 22% of total recycled output in 2017, an annual increase of 337%.
- The number of Program-supported public collection sites increased to 44 sites servicing 41 counties, up from 33 sites in 33 counties in 2016.
- Yield (percent of gross collections converted into recycled output) reached its highest level in 2017 at 48%, compared to a 5-year historical average of 34% from 2011-2016.



Read more and see the [full report here](#).

Visions Environmental Unveils Decorative Aggregate Derived from Recycled Carpet

Visions Environmental (a subsidiary of Visions Quality Coating), has joined the roster of companies using California-sourced, post-consumer recycled carpet in new products. Visions' Stone Miracle™ colored-stone aggregate is suitable for decorative landscape projects and comes in four standard colors. It is available in .5 cu ft bags, 9 cu ft bags and 1 cu yd bags.



Learn more about recycled carpet-derived products on the [CARE website](#) or [request a product catalog](#).

Fiberon Sells Decking Business

Fiberon LLC, a leading producer of plastic-based decking, railing and fencing, was recently acquired by Fortune Brands Home & Security Inc. Fiberon uses polyester (PET) fibers from carpet at their manufacturing locations in Minnesota. That plant was not part of the Fortune Brands deal and it is not clear at this time exactly how the sale will impact demand for PET fiber in this particular application.

Mary Pitto


From: Mattress Recycling Council. <ispa@sleepproducts.ccsend.com> on behalf of Mattress Recycling Council <info@mattressrecyclingcouncil.org>
Sent: Monday, August 20, 2018 2:11 PM
To: Mary Pitto
Subject: August 2018 Program Update

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You are receiving this email because you signed up to receive MRC Program Updates, are a registered participant on MRCreporting.org or serve as or expressed interest in becoming a collection site.

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MRC Program Update



Mattress Recycling Council

August 20, 2018

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In This Issue

MATTRESS INDUSTRY:
[Preparing for CalRecycle Inspections](#)

IN THE COMMUNITY:
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[MRC Recognizes California Legislators for Their Environmental Stewardship](#)

[Collaborate With MRC for America Recycle's Day](#)



RETAILERS:
[Tools For Reporting](#)

IN THE COMMUNITY: Collaborate With MRC for America Recycle's Day

MRC works with local leaders and non-profits to make collection events possible in communities throughout program states. America Recycle's Day is November 15, and it's time to start thinking about how you are going to celebrate.

Collaborate with MRC to host a collection event in your area, and let us handle promotion for you. Keep in mind that we need 60 days notice about your upcoming event, and would need details by September 15. If you're interested in arranging a collection event, click [here](#).

Here is a snapshot of what we've been up to!



Customer Education
Reporting & Payment
Deadlines
Publicity Toolkits
Recyclers in Your Area

FOR RETAILERS

Customer Education Materials

[Online Order Form](#)

Samples:
[Information Card](#)
[Information Card](#)
[Spanish](#)
[Customer Q & A](#)
[Customer Q & A](#)
[Spanish](#)

[Request artwork or
logos](#)

Reporting & Payment Deadlines

<u>Collection Period</u>	<u>Due</u>
June 1-30	July 30
July 1-31	Aug 30
Aug 1-31	Sept 30

Submit Reports &
Payments via
MRCreporting.org

2018 PUBLICITY TOOLKITS

Collection Site Hosts:
Find press releases,
flyers, site signage and
more!



Photos from collection events with Supervisor Nate Miley, Assemblyman Dante Acosta, North Bay Conservation Corps and Stamford.

IN THE COMMUNITY: MRC Recognizes California Legislators for Their Environmental Stewardship

The Mattress Recycling Council was pleased to present three California legislators with our inaugural Environmental Stewardship awards. Legislators were chosen for their commitment to protecting California's environment and reducing our environmental footprint. This includes boosting recycling efforts, improving infill projects and protecting California's coastline.



MRC's Managing Director Mike O'Donnell presents Asm. Mark Stone with the Environmental Stewardship award.

Recipients included Assemblymembers Mark Stone and Kevin McCarty and state Senator Bob Wieckowski. The awards were presented by our Managing Director Mike O'Donnell during meetings with the legislators at their district and Capitol offices.

IN THE COMMUNITY: San Jose Uses MRC's California Initiative to Fund RAPID Response to Illegal Dumping

Several years ago, the City of San Jose enlisted a consultant to help them understand the extent of illegal dumping throughout

[Site Host Toolkit](#)

Event Hosts:
Media alerts, flyers,
posters, signage and
more!
[Event Host Toolkit](#)

Recyclers in Your Area

CALIFORNIA:

*Businesses need to make
arrangements directly
with recyclers.*

[Blue Marble-Commerce](#)

[Blue Marble - Fresno](#)

[Blue Marble-San
Leandro](#)

[Cleaner Earth Company](#)

[Cristal Materials - LA](#)

[Cristal Materials -
Commerce](#)

[DR3 Oakland](#)

[DR3 Stockton](#)

[DR3 Woodland](#)

[R5 Recycling](#)

CONNECTICUT & RHODE ISLAND

*Businesses should contact our
Northeast Program
Coordinator **Kate Caddy** for
arrangements.*

[Park City Green-CT](#)

[Ace Mattress Recycling-
RI](#)

[Express Mattress
Recyclers-RI](#)

Get SleepSavvy Today!

their communities. After finding substantial increases in the number of incidents and amount of material, the Environmental Services Department created the RAPID (Removing and Preventing Illegal Dumping) team. San Jose uses the payments received through MRC's California Illegally Dumped Mattress Collection Initiative to partially fund it. This enables RAPID to focus on completing clean up assignments and implementing preventative measures. Between July 1, 2017 and June 30, 2018, RAPID cleaned over 14,000 illegal dump sites in San Jose.



Read the full story [here](#), and learn how your city can participate in California's Illegally Dumped Mattress Collection Initiative.

MATTRESS INDUSTRY: Preparing for CalRecycle Inspections

Attention all California mattress retailers, manufacturers and renovators - be prepared for your unannounced inspections from CalRecycle, the state agency with regulatory oversight for MRC's California program.

Learn more [here](#).

FOR RETAILERS: Take Advantage of MRC's Tools For Reporting

We know vacations are coming up, and you may not be able to handle reporting for your company. This may mean that another team member will have to take on this task. Don't stress, we have tools to help you and your staff with reporting.

On the [MRCReporting.org](#) website in the resources section you will find the [Registration and Reporting Guidelines](#) and [Reporting and Remittance Guidelines video](#).

As always, don't hesitate to contact our [Customer Service Department](#) should you have any questions.

Mattress Recycling Council

ONLINE REGISTRATION, REPORTING
AND ACCOUNT GUIDELINES



Sleep Savvy is the go-to, hands-on resource for mattress retailers who want to sell more and better bedding. With features, tips and ideas, it's designed to make your business grow.



Check out the latest issue at sleepsavvymagazine.com

Subscriptions are FREE!

UPCOMING EVENTS

Southern California SWANA Founding Chapter Workshop

September 6, 2018

Hyatt Regency Resort & Spa

21500 Pacific Coast Hwy.

Huntington Beach, CA 92648

[Event website](#)

MRC staff plans to attend.

Home Furnishings Association

September 14-15, 2018

Radisson Blu Minneapolis

35 S 7th St

Minneapolis, MN

55402

[Event website](#)

This year's HFA INSIGHTS promises attendees the opportunity to make memorable connections with industry leaders and partners while providing ample opportunity for professional growth and engagement. MRC's Retailer Liaison, Paris Gholston is attending.

CalRecycle's Used Oil/HHW Training & Symposium

September 18-21, 2018

Delta Hotels Anaheim

12021 Harbor Blvd

Garden Grove, CA 92840

[Event website](#)

This is an outstanding opportunity for organizations and businesses to interact with over 300 attendees and promote services and products. This event brings together knowledgeable and dynamic representatives from federal, state, and local agencies, non-profit organizations, service providers, and consultants to share information. MRC will have a booth. Our Southern California Program Coordinator, Tyler Douthitt, will be attending.

Connecticut Conference of Municipalities

October 30-31, 2018

Foxwoods Resort

350 Trolley Line Blvd,

Mashantucket, CT 06338

[Event website](#)

Each fall, more than 1,000 attendees, including local government leaders from across the state and companies providing the best in products and services to towns and cities, gather together for two days of informative workshops, interactive discussions, and networking opportunities.

WELCOME: New Collection Sites

We are always adding new sites to the program. Visit the recycling locator at ByeByeMattress.com for the latest details. If you would like to become a collection site, please contact MRC today.

Here are some recent additions to our locator directory:

California

Burrtec-Edom Hill
Cathedral City, CA 92234

Foothill Sanitary Landfill
Linden, CA Linden 95236

Lovelace MRF & Transfer Station
Manteca , CA 95336

North County Recycling Center & Sanitary Landfill
Lodi, CA 95240

Rainbow Transfer Station
Huntington Beach, CA 92647

Connecticut

Town of Suffield Landfill
West Suffield, CT 06078

Mattress Recycling Council (MRC) is a non-profit organization formed by the industry to operate recycling programs in states which have enacted mattress recycling laws. Connecticut's program launched on May 1, 2015, California launched December 30, 2015 and Rhode Island began May 1, 2016. Each state's program is funded by a recycling fee that is collected when a mattress or box spring is sold. The fees pay for the transportation and recycling of the mattresses.

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

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Mary Pitto

From: Mattress Recycling Council <ispa@sleepproducts.ccsend.com> on behalf of Mattress Recycling Council <info@mattressrecyclingcouncil.org>
Sent: Thursday, September 27, 2018 1:17 PM
To: Mary Pitto
Subject: September 2018 MRC Monthly Highlights

MRC Monthly Highlights

Can't view this email, [click here.](#)



MRC Monthly Highlights 09.27.18

This month we are proud to introduce MRC Monthly Highlights - the new look and name for MRC's Program Update. We hope you like it. Let us know what you think.

MRC NEWS: Return Policy

When reporting your "returned units" keep in mind that this is the number of purchased units that were returned by the customer for a full refund including the mattress recycling fee. We've made some updates to the reporting screen to clarify this.

Email support@mattressrecyclingcouncil.org with any reporting or payment questions.

CA RETAILERS: MRC's California Retailer Take-Back Ad Campaign is Launching Soon

IN THIS ISSUE

MRC NEWS

Reporting your Returns on MRCreporting

FOR MATTRESS INDUSTRY

MRC's California Retailer Take-Back PSA

COLLECTION SITES

Join the California Illegally Dumped Mattress Collection Initiative

IN THE COMMUNITY

Quote of the Month



Our latest California ad campaign launches Oct. 1, and it encourages consumers to ask their local retailer to take back used mattresses when purchasing a new one.

Themed "Make it Easy," the cornerstone of the campaign educates consumers and retailers on how simple it is to recycle used mattresses and box springs for free through the Bye Bye Mattress Program.

"We want Californians to know they can ask their retailers to take their old mattress when a new one is delivered," said MRC's Managing Director, Mike O'Donnell. "It's part of our Bye Bye Mattress Program, which removes millions of pounds of waste from California's landfills every year and reduces the state's environmental footprint."

To learn more, check out the [Retailer Take-Back page](#) of MRC's website.

More details coming soon. In the meantime, you can also view all of our other PSA material by visiting the Bye Bye Mattress [media center](#).

Let MRC Promote Your
Collection Event

IN EVERY ISSUE

Customer Education

Reporting & Payment
Deadlines

Upcoming Industry Events

Publicity Toolkits

Recyclers in Your Area

New Collection Sites

Connect With Us:

501 Wythe Street
Alexandria, VA 22314

1-855-229-1961



IN THE COMMUNITY: Quote of The Month

As a way to show our appreciation for all of the great feedback MRC receives, we will begin featuring a quote of the month in our newsletter. This month's quote is from Brian Squires with Windsor Sanitation, Inc.

“ Just wanted to express our appreciation for taking such good care of our customer at the Fairfield Inn in Manchester. ”

—Brian Squires
Windsor Sanitation, Inc
Bloomfield, CT




IN THE COMMUNITY: Let MRC Promote Your Collection Event

MRC continues to collaborate with local leaders and non-profits to make collection events possible. Here's a snapshot we've been up to!



Photos from events with Supervisor Nate Miley and City of Oakland and Waste Management.

Let us know if you are planning an America Recycles Day event. We'd like to review your vendor or sponsorship options.

COLLECTION SITES: Welcome to California's Illegally Dumped Mattress Collection Initiative

To date, there are 47 participating entities and this year more than 29,000 units have been collected so far. MRC welcomes the following new participants:

- Yurok Tribe
- City of Highland
- Urban Corps of San Diego County
- City of Bakersfield

To read more about MRC's California Illegally Dumped Mattress Collection Initiative, click [here](#).

If your organization is eligible to participate, please register! Contact [Mark Patti](#), MRC's Southern California Program Coordinator.

WE'RE HIRING!

Our California team is expanding and adding an additional Program Coordinator in Northern California.

[View the full job description here.](#)

UPCOMING EVENTS

Resource Recycling Conference Oct. 22-24 St Louis, MI	Campus Sustainability Month at ECSU Oct. 24 Willimantic, CT	Connecticut Conference of Municipalities Oct. 30-31 Mashantucket, CT	SCWMF Annual Conference & Exhibit Nov. 14 Ponoma, CA	CalRecycle Technical Panel Dec. 3-6 Monterey, CA
Event website	Event website	Event website	Event website	Event website

WELCOME: New Collection Sites

We are always adding new sites to the program. Visit the recycling locator at ByeByeMattress.com for the latest details. If you would like to become a collection site, please contact [MRC](#) today.

Here are some recent additions to our locator directory:

Connecticut

Salvation Army - Hartford
Hartford, CT 06112

Rhode Island

Barrington DPW Recycling Center
Barrington, RI 02806

FOR RETAILERS

CUSTOMER EDUCATION MATERIALS

[Online Order Form](#)

Samples:

[Information Card](#)
[Information Card Spanish](#)
[Customer Q & A](#)
[Customer Q & A Spanish](#)

[Request artwork or logos](#)

REPORTING & PAYMENT DEADLINES

Collection Period - Due Date

Aug 1-31 - Sep 30

Sept 1-30 - Oct 30

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FOR COLLECTION SITE & EVENT HOSTS

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RECYCLERS IN YOUR AREA

CALIFORNIA

Businesses need to make arrangements directly with recyclers.

[Cleaner Earth Company](#)

[Cristal Materials](#)

[DR3 Livermore](#)

[DR3 Stockton](#)

[DR3 Woodland](#)

[R5 Recycling](#)

CONNECTICUT & RHODE ISLAND

Businesses should contact our Northeast Program Coordinator Kate Caddy for arrangements.

[Park City Green-CT](#)

[Ace Mattress Recycling-RI](#)

[Express Mattress Recyclers-RI](#)



Get SleepSavvy Today!

Sleep Savvy is the go-to, hands-on resource for mattress retailers who want to sell more and better bedding. With features, tips and ideas, it's designed to make your business grow.

Check out the latest issue at sleepsavvymagazine.com
Subscriptions are FREE!

Mattress Recycling Council (MRC) is a non-profit organization formed by the industry to operate recycling programs in states which have enacted mattress recycling laws. Connecticut's program launched on May 1, 2015, California launched December 30, 2015 and Rhode Island began May 1, 2016. Each state's program is funded by a recycling fee that is collected when a mattress or box spring is sold. The fees pay for the transportation and recycling of the mattresses.

501 Wythe Street, Alexandria, VA 22314

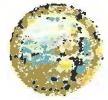
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Monthly Public Meeting

CalRecycle

10:00 A.M., August 21, 2018

Ca/EPA Building – Sierra Hearing Room

A. DIRECTOR'S REPORT

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

B. PUBLIC COMMENT*

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

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

C. PROGRAM AND ISSUE UPDATES

Action Items

No actions at this time

Information Items

Nothing to report at this time

D. POLICY MANDATES/WORKSHOPS/RULEMAKING PROCEEDINGS

Possible decisions or discussions by department staff regarding any order instituting a rulemaking proceeding to develop and adopt regulations and/or policy guidelines specifying the procedures to implement or revise program guidelines or requirements such as Product Stewardship, Commercial Recycling, Organics Roadmap or the 75% initiative.

Action Items

1. Consideration of the Mattress Recycling Council's 2017 California Used Mattress Recovery and Recycling Annual Report
Department Staff Contact: Heather.Beckner@CalRecycle.Ca.Gov
[Public Notice](#)

Information Items

1. Discussion of Air Quality Permitting and Regulatory Issues for New Compost Facilities in California
August 21, 2018 1:00 PM – 5:00 PM ([Sacramento](#))
Department Staff Contact: Crystal.Reul-Chen@CalRecycle.Ca.Gov
2. Discussion of Air Quality Permitting and Regulatory Issues for New Compost Facilities in California
August 24, 2018 10:00 AM - 3:30 PM ([Diamond Bar](#))
Department Staff Contact: Crystal.Reul-Chen@CalRecycle.Ca.Gov

3. 2018 CalRecycle Tire Conference
August 29 – 30, 2018 7:30 AM – 3:30 PM ([Sacramento](#))
Department Staff Contact: Sally.French@CalRecycle.Ca.Gov

E. BEVERAGE CONTAINER RECYCLING PROGRAM

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

Action Items

No actions at this time

Information Items

Nothing to report at this time

F. ELECTRONIC WASTE RECYCLING PROGRAM

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

Action Items

No actions at this time

Information Items

Nothing to report at this time

G. LOCAL ASSISTANCE

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

Action Items

No actions at this time

Information Items

1. Five-Year Review Report For The Countywide Integrated Waste Management Plan For The County Of Mariposa
Department Staff Contact: Rhiannon.McCollough@CalRecycle.ca.gov
[Public Notice](#)

H. GRANT AND LOAN PROGRAMS

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

Action Items

1. Allocations for the Greenhouse Gas Reduction Fund Grant Programs From Remaining Fiscal Year (FY) 2017–18 Funds and New FY 2018–19 Funds (Greenhouse Gas Reduction Fund, Fiscal Years 2017–18 and 2018–19)
Department Staff Contact: Michelle.Martin@CalRecycle.ca.gov
[Public Notice](#)

2. Eligibility, Scoring Criteria, and Evaluation Process for the Food Waste Prevention and Rescue Grant Program (Greenhouse Gas Reduction Fund, Fiscal Year (FY) 2018–19, Using FY 2017–18 Funds)

Department Staff Contact: Alex.Byrne@CalRecycle.ca.gov
[Public Notice](#)

Information Items

Nothing to report at this time

I. SOLID WASTE AND TIRE FACILITIES

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

Action Items

1. Jepson Prairie Organics Composting Facility – Solano County, Revised Solid Waste Facilities Permit, Action Needed September 7, 2018
Department Staff Contact: Harprit.Mattu@CalRecycle.ca.gov
[Public Notice](#)
2. Bradley East Transfer Station/Sun Valley Recycling Park – City of Los Angeles, Revised Solid Waste Facilities Permit, Action Needed September 24, 2018
Department Staff Contact: Megan.Emslander@CalRecycle.ca.gov
[Public Notice](#)
3. Eligibility, Scoring Criteria, and Evaluation Process for the Solid Waste Disposal and Codisposal Site Cleanup Grant Program
Department Staff Contact: Steve.SantaCroce@CalRecycle.ca.gov
[Public Notice](#)

Information Items

1. Awards for the Solid Waste Disposal and Codisposal Site Cleanup Program
Department Staff Contact: Steve.SantaCroce@CalRecycle.ca.gov
[Public Notice](#)
2. Approval of the Big Pine Landfill Remediation under the Solid Waste Disposal and Codisposal Site Cleanup Grant Program
Department Staff Contact: Steve.SantaCroce@CalRecycle.ca.gov
[Public Notice](#)

J. COMPLIANCE AND ENFORCEMENT HEARINGS

Hearings for Compliance and Enforcement matters and Administrative Appeals which are required to have a public hearing prior to the Department taking action

Action Items

No actions at this time

Information Items

Nothing to report at this time

K. OTHER

Possible decisions or discussions regarding the development or implementation of a new or an amendment to policies and procedures for grants, loans and contracts. Please note that grants, loans, or scopes of work will be agendized specific to program area unless otherwise noted here.

Action Items

No actions at this time

Information Items

Nothing to report at this time

We want to assure all of our stakeholders that transparency and stakeholder involvement remains a high priority for CalRecycle. In keeping with a history of providing stakeholders with information about programs, activities, and departmental decisions, CalRecycle has a public noticing site. To review Final CalRecycle Decisions and other department activities, please go to: <http://www.calrecycle.ca.gov/Actions/> or <http://www.calrecycle.ca.gov/BevContainer/Notices>. For meeting participation, listserv, and feedback information, please go to: <http://www.calrecycle.ca.gov/PublicMeeting/>.



Monthly Public Meeting

CalRecycle
10:00 A.M., September 18, 2018
Cal/EPA Building – Coastal Hearing Room

A. DIRECTOR'S REPORT

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

B. PUBLIC COMMENT*

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

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

C. SOLID WASTE AND TIRE FACILITIES

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

Action Items

1. City Terrace Recycling and Waste Transfer Station – Los Angeles County, Revised Solid Waste Facilities Permit, Action Needed October 15, 2018
Department Staff Contact: Benjamin.Escotto@CalRecycle.ca.gov
Public Notice
2. Bradley East Transfer Station/Sun Valley Recycling Park – City of Los Angeles, Revised Solid Waste Facilities Permit, Action Needed October 26, 2018
Department Staff Contact: Megan.Emslander@CalRecycle.ca.gov
Public Notice
3. IMS Recycling Services, Inc. – City of San Diego, New Solid Waste Facilities Permit, Action Needed October 26, 2018
Department Staff Contact: Cody.Oquendo@CalRecycle.ca.gov
Public Notice
4. Chiquita Canyon Landfill – Los Angeles County, Revised Solid Waste Facilities Permit, Action Needed November 3, 2018
Department Staff Contact: Benjamin.Escotto@CalRecycle.ca.gov
Public Notice

Information Items

Nothing to report at this time

D. POLICY MANDATES/WORKSHOPS/RULEMAKING PROCEEDINGS

Possible decisions or discussions by department staff regarding any order instituting a rulemaking proceeding to develop and adopt regulations and/or policy guidelines specifying the procedures to implement or revise program guidelines or requirements such as Product Stewardship, Commercial Recycling, Organics Roadmap or the 75% initiative.

Action Item

1. Consideration of the Mattress Recycling Council's California Used Mattress Recovery and Recycling 2019 Program Budget
Department Staff Contact: Heather.Beckner@CalRecycle.ca.gov and
Nicole.Castagneto@CalRecycle.ca.gov
Public Notice
2. Director Appointment of Mattress Recycling Organization Advisory Committee Member
Department Staff Contact: Heather.Beckner@CalRecycle.Cca.gov and
Nicole.Castagneto@CalRecycle.ca.gov
Public Notice
3. Approval of Annual CalRecycle Architectural Paint Stewardship Administrative Fee, July 1, 2017 - June 30, 2018
Department Staff Contact: Stephanie.Edwards@CalRecycle.ca.gov
Public Notice

Information Items

1. Discussion of Revising the Five-Year Tire Plan for FYs 2019/20 through 2023/24
November 13, 2018 9:00 AM – 11:30 AM (Sacramento)
Department Staff Contact: Sally.French@CalRecycle.ca.gov
2. Update on AB 901 Recycling and Disposal Reporting System Rulemaking
Department Staff Contact: Steven.Sander@CalRecycle.ca.gov

E. BEVERAGE CONTAINER RECYCLING PROGRAM

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

Action Items

Nothing to report at this time

Information Items

1. Segregated, Comingled and Container Per Pound Rates
Department Staff Contact: Mike.Miller@calrecycle.ca.gov
2. Quality Incentive Payment Program
Department Staff Contact: Mike.Miller@calrecycle.ca.gov
3. Rate Determination Survey Methodology Public Workshop and the Public Rate Hearing
Department Staff Contact: Mike.Miller@calrecycle.ca.gov

F. COMPLIANCE AND ENFORCEMENT HEARINGS

Hearings for Compliance and Enforcement matters and Administrative Appeals which are required to have a public hearing prior to the Department taking action

Action Items

Nothing to report at this time

Information Items

1. Waste Evaluation and Enforcement Branch (WEEB) Enforcement Update on the Mandatory Commercial Recycling (MCR) Law (Public Resources Code Section 42649-42649.7)
Department Staff Contact: Trevor.OShaugnessy@CalRecycle.ca.gov

G. GRANT AND LOAN PROGRAMS

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

Action Items

1. Eligibility, Scoring Criteria, and Evaluation Process for the Food Waste Prevention and Rescue Grant Program (Greenhouse Gas Reduction Fund, Fiscal Year (FY) 2018–19, Using FY 2017–18 Funds)
Department Staff Contact: Chan.Saechao@CalRecycle.ca.gov
Public Notice

Information Items

Nothing to report at this time

H. LOCAL ASSISTANCE

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

Action Items

Nothing to report at this time

Information Items

1. Five-Year Review Report For The Countywide Integrated Waste Management Plan For The County Of Plumas
Department Staff Contact: Alex.Souza@CalRecycle.ca.gov
Public Notice

I. PROGRAM AND ISSUE UPDATES

Action Items

Nothing to report at this time

Information Items

Nothing to report at this time

J. ELECTRONIC WASTE RECYCLING PROGRAM

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

Action Items

Nothing to report at this time

Information Items

Nothing to report at this time

K. OTHER

Possible decisions or discussions regarding the development or implementation of a new or an amendment to policies and procedures for grants, loans and contracts. Please note that grants, loans, or scopes of work will be agendized specific to program area unless otherwise noted here.

Action Items

Nothing to report at this time

Information Items

Nothing to report at this time

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Monthly Public Meeting

CalRecycle
10:00 A.M., October 16, 2018
Cal/EPA Building – Byron Sher Auditorium

A. DIRECTOR'S REPORT

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

B. PUBLIC COMMENT*

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

C. PROGRAM AND ISSUE UPDATES

Action Items

No actions at this time

Information Items

1. 2018 DRS 2nd Quarter Late Reports
Department Staff Contact: Eileen.Hogue@calrecycle.ca.gov
2. Update on AB 901 Recycling and Disposal Reporting System Implementation
Department Staff Contact: Steven.Sander@calrecycle.ca.gov

D. POLICY MANDATES/WORKSHOPS/RULEMAKING PROCEEDINGS

Possible decisions or discussions by department staff regarding any order instituting a rulemaking proceeding to develop and adopt regulations and/or policy guidelines specifying the procedures to implement or revise program guidelines or requirements such as Product Stewardship, Commercial Recycling, Organics Roadmap or the 75% initiative.

Action Items

1. Consideration of Carpet America Recovery Effort's Revised California Carpet Stewardship Plan 2018-2022
Department Staff Contact: Faridoon.Ferhut@CalRecycle.ca.gov
Public Notice

Information Items

1. Workshop on Revising the Five-Year Plan for FYs 2019/20 through 2023/24
November 13, 2018 9:00 AM – 11:30 AM (Sacramento)
Department Staff Contact: Sally.French@CalRecycle.ca.gov

2. Workshop to Discuss the Development of the Pilot Reuse Grant Program (Fiscal Year 2019–20)
November 14, 2018 1:30 PM – 5:00 PM (Sacramento)
Department Staff Contact: Scott.Beckner@CalRecycle.ca.gov

3. Workshop: Threats Posed by Lithium Battery Fires
CalEPA Building, Room 550
1001 I Street, Sacramento, CA 95812
November 8, 2018 1:00 PM – 4:00PM
Department Staff Contact: Teresa.Bui@calrecycle.ca.gov
Public Notice

E. LOCAL ASSISTANCE

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

Action Items

Nothing to report at this time

Information Items

1. Five-Year Review Report for the Countywide Integrated Waste Management Plan for the Alameda County Waste Management Authority
Department Staff Contact: Kaoru.Cruz@CalRecycle.ca.gov
Public Notice

2. Process for Determining AB 1826 Reduction of Statewide Organics Disposal in 2020
Department Staff Contact: Cara.Morgan@CalRecycle.ca.gov
Public Notice

F. GRANT AND LOAN PROGRAMS

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

Action Items

Nothing to report at this time

Information Items

1. Approval of the Recycling Market Development Zone Loan for Pinnpack Packaging, LLC (Recycling Market Development Revolving Loan Subaccount, FY 2018–19)
Department Staff Contact: Bruce.Quigley@CalRecycle.ca.gov
Public Notice

2. Approval of the Greenhouse Gas Reduction Revolving Loan for rPlanet Earth Los Angeles, LLC (Greenhouse Gas Reduction Revolving Loan Fund, FY 2014–15)
Department Staff Contact: Tim.Brannan@CalRecycle.ca.gov
Public Notice

3. Awards and Distribution of Payments for the Used Oil Payment Program (Used Oil Recycling Fund, Fiscal Year 2018–19)
Department Staff Contact: Matthew.Fong@CalRecycle.ca.gov
Public Notice

G. SOLID WASTE AND TIRE FACILITIES

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

Action Items

1. IMS Recycling Services, Inc. – City of San Diego, New Solid Waste Facilities Permit, Action Needed November 6, 2018
Department Staff Contact: Cody.Oguendo@CalRecycle.ca.gov
Public Notice
2. El Sobrante Landfill – Riverside County, Modified Solid Waste Facilities Permit, Action Needed November 9, 2018
Department Staff Contact: Megan.Emslander@CalRecycle.ca.gov
Public Notice
3. City of Watsonville Landfill – Santa Cruz County, Revised Solid Waste Facilities Permit, Action Needed November 27, 2018
Department Staff Contact: Joy.Isaacson@CalRecycle.ca.gov
Public Notice

Information Items

Nothing to report at this time

H. COMPLIANCE AND ENFORCEMENT HEARINGS

Hearings for Compliance and Enforcement matters and Administrative Appeals which are required to have a public hearing prior to the Department taking action

Action Items

No actions at this time

Information Items

1. Waste Evaluation and Enforcement Branch (WEEB) Enforcement Update on the Mandatory Commercial Recycling (MCR) Law (Public Resources Code Section 42649-42649.7)
Department Staff Contact: Trevor.OShaugnessy@CalRecycle.ca.gov

I. BEVERAGE CONTAINER RECYCLING PROGRAM

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

Action Items

No actions at this time

Information Items

1. Quarterly Certification & Registration Report
Department Staff Contact: George.Donkor@calrecycle.ca.gov
2. Recycling Program Enforcement Report
Department Staff Contact: Ben.Shelton@calrecycle.ca.gov
3. Quarterly Operations Report
Department Staff Contact: Mike.Miller@calrecycle.ca.gov
4. Report of Beverage Container Sales, Returns, Redemption, and Recycling Rates
Department Staff Contact: Hieu.Le@calrecycle.ca.gov

J. ELECTRONIC WASTE RECYCLING PROGRAM

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

Action Items

No actions at this time

Information Items

Nothing to report at this time

K. OTHER

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Action Items

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Information Items

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Mary Pitto

From: CalRecycle News Releases Listserv <opa@calrecycle.ca.gov>
Sent: Tuesday, October 9, 2018 1:03 PM
To: Mary Pitto
Subject: In the Loop -- CalRecycle's monthly e-newsletter -- October 2018

IN THE LOOP

*Tips, information, and musings
from the California Department of Resources Recycling and Recovery*

IN THIS ISSUE:

Welcome
What We're Working On
What's Coming Up
Quick Features
Video: Food Waste Prevention
Social Media
Contact Us!

Welcome

Welcome to CalRecycle's new monthly e-newsletter. Here you'll find reduce-reuse-recycle tips, plus updates on what we're working on, notices for upcoming meetings and workshops, and a few highlights from our social media platforms. If you like what you see here, tell your friends and colleagues to sign up! Instructions for subscribing (and unsubscribing) are at the bottom of this newsletter.

What We're Working On

National Sword and China's Restriction on the Import of Recyclable Material

The export of recyclable materials is a key component of California's recycling infrastructure. Recent changes to international policies restricting foreign imports of recyclable materials, coupled with the need to reduce contamination levels in recycling streams and a declining global market value for some recyclables, have resulted in significant challenges for the solid waste and recycling industry, local governments, and Californians. CalRecycle is working with local jurisdictions to help resolve these challenges. We update our [National Sword webpage](#) often, so please check it regularly!

Beverage Container Recycling Program: CRV Fraud Deterrence

CalRecycle and its law enforcement partners are always on the lookout to protect the Beverage Container Recycling Fund from fraud. Several arrests have been made recently after large loads of ineligible out-of-state used beverage containers were intercepted at state border stations before they could be illegally redeemed for California Redemption Value. [See our news release on the arrests.](#)

Wildfire Debris Removal Underway in Northern California

CalRecycle-managed crews have completed debris removal all 49 properties participating in the state-managed [Klamathon Fire](#) cleanup program in Siskiyou County. Crews are making significant progress on three other simultaneous debris removal operations in the wake of the [Carr Fire](#) in Shasta County and the [Mendocino Complex Fire](#) and the [Pawnee Fire](#) in Lake County. [See our most recent news release on the cleanups.](#)

What's Coming Up

CalRecycle October Public Meeting

10 a.m. Tuesday, October 16
Byron Sher Auditorium, CalEPA Building
1001 I St., Sacramento, CA

A few days before the meeting, you can find the full agenda and other materials for [CalRecycle's October public meeting here](#). If you can't make it in person, [join us by webcast](#) (the link will go live shortly before the meeting begins).

Quick Features

CalRecycle Director Talks Food Waste Prevention

San Francisco hosted California's first Global Climate Action Summit last month, drawing governors, mayors, business executives, and leaders from around the world. At an affiliate event, panel discussions focused on efforts to reduce the estimated 1.4 billion tons of food wasted worldwide each year. In a discussion called "Financing the Change," CalRecycle Director Scott Smithline spoke about the department's new Food Waste Prevention and Rescue Grant Program, which awarded \$9.4 million to 31 projects earlier this year.

Wildfire Debris Removal Program FAQs

In an effort to combat common misconceptions about the state-managed wildfire debris removal program, CalRecycle is working alongside CalOES and local governments to educate homeowners about their options.

The Garbage Bin: It's Not for Just Any Old Thing

While it would be nice to be able to toss your dead batteries, used motor oil, and half-empty paint cans into the bin, your local hauler is not equipped to handle those items, known as household hazardous waste. Here is a quick list of waste that's banned from the trash bin and the recycling bin.

The Real Price of That Shirt

You're standing in a retail store and holding up a cotton shirt, thinking it looks like it's made from two yards of material, and that's it. Not so. What it's really made from is more than 700 gallons of water, plus fertilizers, chemical dyes, and about 4.3 kilograms of carbon dioxide emissions expended in the manufacturing process.

Video: Food Waste Prevention

Did you know organic waste, including edible food, is the largest material type landfilled in California? At the same time, 1 in 8 Californians, including 1 in 5 children, are food-insecure. Watch our [Food Waste Prevention video](#) to learn more.

Social Media

Follow us on [Twitter](#) and [Facebook](#)!

Our [blog](#) has moved to our [updated CalRecycle website](#). Check it out!

To subscribe or unsubscribe, go to our [CalRecycle Listservs webpage](#) and scroll to "News Releases: Receive email notifications about CalRecycle news releases, reports, accomplishments, and special activities."

Questions, Comments? [Contact us!](#)

[Unsubscribe from this list.](#)

Serial Number: 9BUXLPWT
Sent On: 10/09/2018 1:02 PM



[Home](#) » [News Room](#) » [09Sept](#) » [September 7](#)

NEWS RELEASE

OFFICE OF PUBLIC AFFAIRS

For Immediate Release: September 7, 2018

Release #2018-18

CalRecycle Media Contact: Lance Klug

CalOES Media Contact: CalOES newsroom

Wildfire Debris Removal Underway in Northern California: CalRecycle Crews Conducting Simultaneous Cleanup Operations in Shasta and Siskiyou Counties

SACRAMENTO – Crews managed by the California Department of Resources Recycling and Recovery have begun clearing wildfire debris from burned properties in Shasta (Carr Fire) and Siskiyou (Klamathon Fire) counties. The efforts are part of a two-phase wildfire cleanup program implemented under the leadership of the Governor’s Office of Emergency Services and local governments at no out-of-pocket cost to homeowners.

Phase 1 (Mandatory) – The California Department of Toxic Substances Control removes hazardous debris such as asbestos siding or pipe insulation, paints, batteries, flammable liquids, and other materials.

Phase 2 (Voluntary) – Following the removal of hazardous debris, CalRecycle contractors assess properties and remove contaminated soil, ash, metal, concrete, and other debris to restore properties to pre-fire conditions.

“First and foremost, CalRecycle would like to express our support and sympathy for the homeowners, firefighters, and community members impacted by wildfires burning across California,” CalRecycle Director Scott Smithline said. “CalRecycle is working alongside local governments, Cal OES, and other state agencies to bring all available resources to help our communities recover and rebuild.”

Shasta County

Household hazardous waste removal on roughly 1,200 properties is underway by the California Department of Toxic Substances Control. CalRecycle contractors began assessing HHW-cleared properties on August 25. Debris removal started September 6.



CalRecycle photos of debris removal at a property on Spinnaker Drive in the City of Redding on September 6, 2018.

Siskiyou County

DTSC completed household hazardous waste removal on 60 properties in late July, 2018. CalRecycle contractors began assessing burned properties on August 15. Debris removal started August 27.

CalRecycle Operations	
Site Assessment and Documentation	Identify and remove remaining asbestos. Measure and record foundation, structures, debris, utility infrastructure, and property-specific hazards. Obtain and evaluate background soil samples to establish cleanup goals.
Debris Removal	Remove of all burnt debris, foundations, ash, and contaminated soil.
Confirmation Sampling	Sample and analyze soil, compare results to cleanup goals, scrape additional contaminated soil as needed.
Erosion Control	Implement erosion controls to minimize sediment runoff and promote vegetation growth.
Final Inspection	Certify property owner's lot is clean and eligible to receive a building permit.

Residents who wish to take advantage of the CalRecycle-managed debris removal program must return signed right-of-entry agreements to their local government. A Debris Removal Operations Center has been established in each community as a resource for impacted property owners to return right-of-entry forms or get answers to any questions.



Siskiyou Co. Debris Removal Operations Center

1312 Fairlane Road
Yreka, CA 96097
(925) 983-9002

Property owners who wish to conduct their own cleanup may do so, but should be aware of local safety and environmental standards and requirements. Contact your local government for more information on private cleanups.



[Home Page](#) | [CalRecycle Blog](#) | [News Releases](#) | [Public Meetings](#) | [Climate Investments](#) | [Organics](#) | [Bottles and Cans](#)
CalRecycle provides oversight of California solid waste handling and recycling programs to protect human health, develop sustainable solutions that conserve resources, and reduce greenhouse gases that contribute to climate change.

Last updated: September 7, 2018
News Room <https://www.calrecycle.ca.gov/NewsRoom/>
Public Affairs Office: opa@calrecycle.ca.gov (916) 341-6300

©1995, 2018 California Department of Resources Recycling and Recovery (CalRecycle)

NEWS RELEASE

OFFICE OF PUBLIC AFFAIRS

For Immediate Release: October 9, 2018

Release #2018-20

Media Contact: [Lance Klug](#)

California Marks New Wildfire Debris Removal Milestone: Debris Removal Completed in Siskiyou County, Cleanups Continue in Shasta and Lake Counties

SACRAMENTO – The California Department of Resources Recycling and Recovery is joining the California Governor’s Office of Emergency Services to announce the completion of wildfire debris removal in Siskiyou County. Final inspections on cleared lots are underway and should be complete by mid-October. Since August 27, 2018, crews removed more than 13,670 tons of wildfire debris from 49 private properties, including:

- 9,835 tons of ash/debris
- 2,371 tons of contaminated soil
- 1,009 tons of concrete (recycled)
- 391 tons of metal (recycled)

“The completion of wildfire debris removal in Siskiyou County is a significant milestone in California’s wildfire recovery efforts,” CalRecycle Director Scott Smithline said. “CalRecycle is incredibly proud of the progress we’ve made together with our state and local partners to help these communities heal and put homeowners in a position to rebuild.”



CalRecycle photos of fire-damaged properties in Siskiyou County before (left) and after (right) debris removal operations.

Remaining Debris Removal Operations

CalRecycle-managed crews continue to make progress on three additional wildfire debris removal operations on properties impacted by the Carr Fire in Shasta County as well as Lake County properties affected by the Pawnee and Mendocino Complex fires.

CalRecycle Operations as of Oct. 9, 2018	Klamathon Fire (Siskiyou County)	Carr Fire (Shasta County)	Mendocino Complex Fire (Lake County)	Pawnee Fire (Lake County)
Participating Properties	49	968	121	13
Site Assessments	49	804	113	13
Debris Removal	49	279	8	0
Confirmation Sampling	29	108	0	0
Erosion Control	29	0	0	0
Final Inspection	22	0	0	0

CalRecycle implements phase two of California’s Consolidated Debris Removal Program under the leadership of CalOES and local governments. Following the removal of household hazardous waste (phase one), CalOES and local officials coordinate with CalRecycle to execute contracts and conduct fire-related debris removal on private properties at no out-of-pocket costs to homeowners.

Homeowners must sign and return Right-of-Entry forms to their local governments to participate in the state-run program. Those who wish to conduct their own cleanup or hire private contractors to remove wildfire debris may do so, but should be aware of local safety and environmental standards and requirements.



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CalRecycle provides oversight of California solid waste handling and recycling programs to protect human health, develop sustainable solutions that conserve resources, and reduce greenhouse gases that contribute to climate change.

Last updated: October 9, 2018

News Room <https://www.calrecycle.ca.gov/NewsRoom/>

Public Affairs Office: opa@calrecycle.ca.gov (916) 341-6300

NEWS RELEASE

OFFICE OF PUBLIC AFFAIRS

For Immediate Release: September 12, 2018
Release #2018-19
Media Contact: [Lance Klug](#)

Eight Arrested in Summer Recycling Fraud Crackdowns: Border Busts Prevent Nearly \$83,000 in Illegal Redemptions of Out-of-State Containers

SACRAMENTO – The California Department of Resources Recycling and Recovery is announcing the arrest of eight suspects accused of attempting to defraud the state’s Beverage Container Recycling Program by smuggling out-of-state empty beverage containers for illegal California Redemption Value redemptions.

Working in partnership with the California Department of Justice, the California Department of Food and Agriculture, and other state and local partners, CDOJ Recycling Fraud Team agents recovered more than 56,000 pounds of material worth an estimated \$82,853 in potential CRV.

“CalRecycle works alongside its law enforcement partners in an effort to protect the nickels and dimes Californians pay at the cash register when purchasing CRV-labeled beverages,” CalRecycle Director Scott Smithline said. “Those attempting to cash in on out-of-state containers and steal CRV funds from California consumers should know we have agents and staff working diligently to disrupt these schemes and protect public funds.”

Winterhaven (Imperial County) Recycling Fraud Border Bust



CDOJ photo of evidence seized during an Aug. 15, 2018, arrest in Winterhaven, Calif.

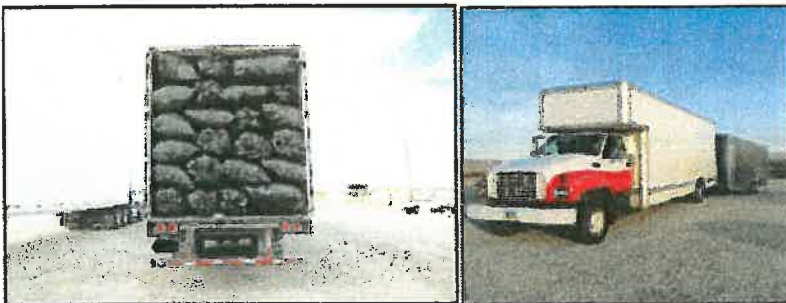
On Aug. 15, 2018, fraud team agents arrested an Arizona recycling center owner suspected of smuggling empty beverage containers into California in an attempt to defraud California’s CRV fund.

After a two-month investigation, agents observed Mary Simpson, 64, of Yuma, Ariz., attempting to enter California with materials collected at her “Cash 4’ Cans” business. Agents detained Simpson at the Winterhaven CDFA border protection station, where she admitted to transporting the containers into California in an effort to collect fraudulent CRV.

Agents seized 907 pounds of aluminum empty beverage containers with an estimated CRV value of \$1,451. Based on Simpson’s statements and evidence seized from her vehicle, it’s believed Simpson imported approximately 468,000 pounds of aluminum worth an estimated \$748,800 in CRV into California over

the past three years.

Needles (San Bernardino County) Recycling Fraud Border Checkpoint Arrests



CDOJ photos of evidence seized and vehicles involved in a July 16-17, 2018 recycling fraud border checkpoint interdiction in Needles, Calif.

On July 16 and 17, 2018, CalRecycle, CDFA, and CDOJ conducted operations at the CDFA border checkpoint in Needles and a temporary border checkpoint near Needles.

Over the two-day operation, suspects in five vehicles were found to be transporting out-of-state empty beverage containers from Nevada to California with intent to defraud California’s CRV fund.

Agents arrested Jose Ramirez, 25, of Duarte; Juan Higuera, 37, of Buckeye, Ariz.; Romeo Turcios, 49, of Los Angeles; Ricardo Flores, 57, of Pomona; Mario Tolentino, 37, of Las Vegas, Nev.; and Rafael Escobar, 57, of Los Angeles on charges including felony recycling fraud, attempted grand theft, and conspiracy.

Agents seized 33,639 pounds of aluminum and 13,623 pounds of plastic empty beverage containers with an estimated CRV value of \$71,260

Barstow (San Bernardino County) Recycling Fraud Border Bust



CDOJ photos of evidence seized after a June 6, 2018, recycling fraud border arrest in Barstow. The semi-truck with a 53-foot trailer was found to contain empty beverage containers from Nevada.

On June 6, 2018, agents with CDOJ’s Recycling Fraud Team received information that a semi-truck filled with empty beverage containers from a Las Vegas construction yard was being transported into California for fraudulent CRV redemptions. Agents followed the vehicle on a route designed to illegally circumvent the CDFA border checkpoint in Yermo, Calif.

California Highway Patrol initiated a traffic stop near the L Street off-ramp of I-15 in Barstow, and officers arrested Moises Morgan-Gomez, 33, of Las Vegas, Nev., on charges of felony recycling fraud, attempted grand theft, and conspiracy.

Agents seized 1,480 pounds of aluminum and 6,260 pounds of plastic empty beverage containers with an estimated CRV value of \$10,142.

Upon conviction, felony recycling fraud and related crimes carry a potential sentence of six months to three years behind bars in addition to fines, court-ordered restitution, and possible loss of license and/or vehicle.

At a Glance: CalRecycle’s Recycling Fraud Prevention Measures

California’s Beverage Container Recycling and Litter Reduction Act incentivizes recycling through a California Redemption Value (CRV) fee paid by California consumers at the time of purchase and refunded upon return of the empty beverage containers to CalRecycle-certified recycling centers. Because the fee is not paid on beverages purchased outside the state, those containers are not eligible for CRV redemption.

In addition to CalRecycle’s interagency agreements with CDOJ and CDFA, CalRecycle aggressively combats fraud and illicit payments through enhanced precertification training of recycling center owners; probationary reviews of recycling centers; oversight of certified processors; monitoring and tracking of imported materials; risk assessment of daily claims for reimbursement; daily load limits; application of prepayment controls; and post-payment reviews and investigations.



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CalRecycle provides oversight of California solid waste handling and recycling programs to protect human health, develop sustainable solutions that conserve resources, and reduce greenhouse gases that contribute to climate change.

Last updated: September 12, 2018
News Room <https://www.calrecycle.ca.gov/NewsRoom/>
Public Affairs Office: opa@calrecycle.ca.gov (916) 341-6300

Mary Pitto

From: The DOJ news alerts email notification list <PRESSLIST@DOJ.CA.GOV> on behalf of California Attorney General's Office <news.alerts@DOJ.CA.GOV>
Sent: Wednesday, September 12, 2018 11:10 AM
To: PRESSLIST@DOJ.CA.GOV
Subject: Attorney General Becerra and CalRecycle Director Smithline Announce Summer Recycling Fraud Sweeps, Preventing Nearly \$83,000 in Illegal Redemptions of Out-of-State Containers



State of California Department of Justice
Xavier Becerra ~ Attorney General

NEWS RELEASE

September 12, 2018

FOR IMMEDIATE RELEASE

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SEP Attorney General Becerra and CalRecycle Director Smithline Announce Summer Recycling Fraud Sweeps, Preventing Nearly \$83,000 in Illegal Redemptions of Out-of-State Containers

Sweeps occurred in San Bernardino and Imperial Counties

SACRAMENTO – California Attorney General Xavier Becerra and CalRecycle Director Scott Smithline today announced the arrest of eight individuals accused of attempting to defraud the State's Beverage Container Recycling Program by smuggling out-of-state empty beverage containers for illegal California Redemption Value (CRV) redemption.

California's beverage container recycling program, administered by the California Department of Resources Recycling and Recovery (CalRecycle), encourages recycling through a 5- to 10-cent deposit on CRV-eligible beverage containers. Consumers can redeem their containers at privately-owned recycling centers certified by CalRecycle. Recycling centers are responsible for ensuring that only eligible

bottles and cans that are sold in California, where the CRV deposit was paid, are redeemed.

“The Beverage Container Recycling Program exemplifies California values: using innovative public programs to better our environment and our communities,” **said Attorney General Becerra**. “Individuals who undermine these efforts by criminally taking advantage of public programs for personal gain will be held accountable. We will continue working with our partners throughout the state to ensure the integrity of our public programs.”

“CalRecycle works alongside its law enforcement partners in an effort to protect the nickels and dimes Californians pay at the cash register when purchasing CRV-labeled beverages,” **said CalRecycle Director Scott Smithline**. “Those attempting to cash in on out-of-state containers and steal CRV funds from California consumers should know we have agents and staff working diligently to disrupt these schemes and protect public funds.”

Working in partnership with the California Department of Resources Recycling and Recovery, the California Department of Food and Agriculture (CDFA), and other state and local partners, the California Department of Justice’s Recycling Fraud Team agents recovered more than 56,000 pounds of material worth an estimated \$82,853 in potential redemptions.

The suspects were arrested as the result of three separate busts:

- **Barstow, San Bernardino County:** On June 6, 2018, California Department of Justice (CA DOJ) agents arrested Moises Morgan-Gomez, from Las Vegas, Nevada, for transporting a semi-truck filled with empty beverage containers from a Las Vegas construction yard for the purpose of collecting fraudulent CRV redemptions in California. Morgan-Gomez was charged with Felony Recycling Fraud, Attempted Grand Theft, and Conspiracy. Agents seized 1,480 pounds of aluminum and 6,260 pounds of plastic empty beverage containers with an estimated CRV value of \$10,142.
- **Needles, San Bernardino County:** On July 16 and 17, 2018, CalRecycle, CDFA, and CA DOJ seized 33,639 pounds of aluminum and 13,623 pounds of plastic empty beverage containers with an estimated CRV value of \$71,260. Over the two-day operation, suspects in five vehicles were found to be transporting out-of-state empty beverage containers from Nevada to California with intent to defraud California’s CRV fund. Agents arrested Jose Ramirez, Juan Higuera, Romeo Turcios, Ricardo Flores, Mario Tolentino and Rafael Escobar on charges including Felony Recycling Fraud, Attempted Grand Theft, and Conspiracy.

- **Winterhaven, Imperial County:** On August 15, 2018, CA DOJ Recycling Fraud Team agents arrested Mary Simpson, an Arizona recycling center owner, suspected of smuggling empty beverage containers into California in an attempt to defraud California's CRV fund. Agents seized 907 pounds of aluminum empty beverage containers with an estimated CRV value of \$1,451, this was in addition to materials she had brought in previously. According to the complaint, Simpson imported approximately 468,000 pounds of aluminum worth an estimated \$748,800 in CRV into California over the past three years.

It is important to note that a criminal indictment contains charges that are only allegations against a person. Every defendant is presumed innocent until proven guilty.

###

You may view the full account of this posting, including possible attachments, in the News & Alerts section of our website at: <https://oag.ca.gov/news/press-releases/%E2%80%A8attorney-general-becerra-and-calrecycle-director-smithline-announce-summer>



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You may view all News & Alerts on our website at: <http://oag.ca.gov/news>

Please visit the remainder of the Attorney General's site at: <http://oag.ca.gov/>

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Mary Pitto

From: CalRecycle Electronic Waste Management ListServ <EWaste@calrecycle.ca.gov>
Sent: Monday, September 24, 2018 11:58 AM
To: Mary Pitto
Subject: California Electronic Waste Recycling Program Updates

September 24, 2018

Dear Electronic Waste Stakeholder:

This listserv newsletter is an update on the implementation of California's Electronic Waste Recycling Act of 2003 (Act) regarding the management of Covered Electronic Wastes (CEW) and other electronic waste (e-waste) management developments in California.

In this issue:

REGULATIONS AMENDING THE ELECTRONIC WASTE RECYCLING PROGRAM APPROVED BY OAL

Regulations Amending the Electronic Waste Recycling Program Approved by OAL

The proposed regulations affecting areas within Chapter 8.2 of Division 7 of Title 14 of the California Code of Regulations were approved by the Office of Administrative Law (OAL) on September 17, 2018 and filed with the California Secretary of State for publishing. The regulations will become effective on October 1, 2018.

The regulations will amend aspects of current regulations governing the covered electronic waste (CEW) recycling payment program, as well as finalize related emergency rules adopted in 2015 and readopted in 2017. The rules serve as a vehicle to finalize two existing emergency regulation packages that address: 1) the assessing of civil liabilities pursuant to the authority granted under Public Resources Code (PRC) section 42474, and 2) the management of treatment residuals derived from the dismantling of CEW. In addition to other general edits, the proposed rules will also amend and clarify aspects of definitions, applicability and limitations, documents and records, net cost reports, applications, prohibited activities, appeals, requirements for collectors and recyclers, claims, cancellation, and manufacturer payments.

Additional information about this rulemaking can be found at:

www.calrecycle.ca.gov/docs/cr/laws/rulemaking/archive/2018SeptEWaste.pdf

Other Resources

Covered Electronic Waste (CEW) Recycling Program Information: www.calrecycle.ca.gov/Electronics/CEW

CEW Recycling Payment System Regulations: www.calrecycle.ca.gov/Electronics/RegInfo

DTSC Universal Waste Electronics Handler and Recycler Information: www.dtsc.ca.gov/HazardousWaste/EWaste

California Statutes and Bills, including Public Resources Code (PRC) and Health and Safety Code (HSC): www.leginfo.legislature.ca.gov

Please note that e-mail correspondence with the Department of Resources Recycling and Recovery (CalRecycle) related to e-waste management in general, and implementation of the Electronic Waste Recycling Act in particular, should be directed to ewaste@calrecycle.ca.gov.
Also note that an archive of past distributions of this newsletter is available at:

- [2004 to Present](#)
- [Pre-2004](#)

Thank you for your interest in shaping California's e-waste management future.

To subscribe to or unsubscribe from the E-Waste listserv or other listservs, please go to www2.calrecycle.ca.gov/Listservs/. For information on California's Electronic Waste Recycling Act of 2003 (SB 20) implementation efforts, as well as other relevant developments go to www.calrecycle.ca.gov/Electronics/.

~
Serial Number: VHKJNIOE
Sent On: 09/24/2018 11:57 AM
~



Edmund G. Brown Jr.
Governor

Matthew Rodríguez
Secretary for Environmental Protection

Unified Program Newsletter – August 2018

In This Issue:

CalEPA	CERS Knowledge Base Help and FAQ's Unified Program Title 27 Regulations – Effective July 1, 2018 Unified Program Surcharge Component Assessments – Effective July 1, 2018
State Water Board	Adopted Amendments to the UST Regulations Revised Report 6 and New U.S. EPA Reporting Requirements Underground Storage Tank Program Evaluation Checklist Developmental CERS Data-Mining Tool on the Horizon
CalFIRE OSFM	Statue of Limitations for Aboveground Petroleum Storage Act Tanks in Underground Areas

CalEPA

CERS Knowledge Base Help and FAQ's

August 2018

Create Regulator Testing Portal Login

<https://cers.calepa.ca.gov/unified-program-bulletins-home/>

Unified Program Title 27 Regulations – Effective July 1, 2018

Revisions for the California Code of Regulations, Title 27 for Unified Program businesses and regulators took effect on July 1, 2018. Significant changes as they impact regulators and regulated businesses are summarized below:

- **Section 15100(b)(2)(G)(iii)(1): Unified Program**
 - For regulators: Unified Program Agencies (UPAs) are no longer required to establish procedures for accepting written Contingency Plan activation reports from regulated businesses.
 - For regulated business: No effect.

- **Section 15185©(5): Information Collection, Retention, and Management**
 - For regulators: Training records of UPA staff required by section 15260 and any other required training records specific to each program element must be retained for a minimum of five years.
 - For regulated businesses: No effect.

- **Section 15186.1(a) and (b): Standard Descriptions for Chemical Inventory Reporting**
 - For regulators: No effect.
 - For regulated businesses: Handlers shall report lead acid batteries and lead acid battery waste as part of a chemical inventory submission using the standard descriptions and values contained in the California Environmental Reporting System (CERS) Chemical Library using template CCL-106669.

- **Section 15188(e): Reporting Requirements – Business Responsibilities. And Appendix C**
 - For regulators: UPAs are now required to ensure a completed Trade Secret Disclosure (TSD) form accompanies each chemical or mixture claimed as a trade secret by the regulated business in the Hazardous Material Business Plan CERS submittal.
 - For regulated businesses: A TSD form must be submitted in the Hazardous Material Business Plan CERS submittal to affirm the belief of each chemical or mixture claimed or disclosed as a trade secret.

- **Section 15240(c)(5): State’s Surcharge Responsibilities**
 - For regulators: The Refinery Safety surcharge component applicable to regulated refinery facilities [as defined in California Code of Regulations, Title 19, section 2735.3(vv)] is now required to be assessed beginning Fiscal Year 2018/2019.
 - For regulated business: Regulated refinery facilities [as defined in California Code of Regulations, Title 19, section 2735.3(vv)] will be assessed the Refinery Safety surcharge component beginning Fiscal Year 2018/2019.

- **Section 15250(b)(2): CUPA Surcharge Responsibilities. And the Surcharge Transmittal Report**
 - For regulators: UPAs must now also send an electronic copy of the Surcharge Transmittal Report to CalEPA via email.
 - For regulated businesses: No effect.

- **Section 15290(a)(2): CUPA-to-State Reporting**
 - For regulators: UPAs must complete the additional “Total Counts” categories relative to the indicated program elements.
 - For regulated businesses: No effect.

- **Section 15290(a)(5): CUPA-to-State Reporting**

- For regulators: UPAs must submit a Formal Enforcement Summary Report to CalEPA electronically, by email, until such a time when the information can be submitted to CERS.
- For regulated businesses: No effect.

For question regarding the revisions to Title 27, please contact Melinda Blum at (916) 327-9560 or Melinda.Blum@calepa.ca.gov.

Unified Program Surcharge Component Assessments - Effective July 1, 2018

In accordance with California Code of Regulations, Title 27, section 15240: State's Surcharge Responsibilities, the amounts of each Unified Program surcharge component for the applicable program elements effective for Fiscal Year 2018/2019 are as follows:

Program Element Surcharge Component	Entity Assessed	Surcharge Assessment		
CUPA Oversight*	Each Regulated Business	\$49.00		
Aboveground Petroleum Storage Act (APSA)	Each Regulated Tank Facility	\$26.00		
Underground Storage Tank (UST) Program*	Each Regulated UST	\$20.00		
California Accidental Release Prevention (CalARP) Program	Each Regulated Business	\$270.00		
Refinery Safety**	Each Regulated Refinery	Tier 1:	200,000 or greater daily barrel capacity	\$45,000
		Tier 2:	100,000 to 199,999 daily barrel capacity	\$27,500
		Tier 3:	50,000 – 99,999 daily barrel capacity	\$13,750
		Tier 4:	Less than 50,000 Daily barrel capacity	\$3,500

*Effective fiscal year 2017/2018, the CUPA Oversight surcharge component increased by \$14 per regulated business and the UST surcharge component increased by \$5 per regulated tank.

**Though the Refinery Safety surcharge component was adopted fiscal year 2017/2018, the authority for Unified Program Agencies to assess it was not adopted until July 1, 2018, making it effective fiscal year 2018/2019.

For questions, please contact Melinda Blum at (916) 327-9560 or Melinda.Blum@calepa.ca.gov.

State Water Board

Adopted Amendments to the UST Regulations Informational Webinars for the Regulated Underground Storage Tank Community and Unified Program Agencies

The State Water Resources Control Board (State Water Board) adopted amendments to California Code of Regulations, title 23, division 3, chapter 16 at the State Water Board's June 5, 2018, Board Meeting. The adopted amendments to the regulations include, but are not limited to: 1) designated underground storage tank (UST) operator inspections; 2) overfill prevention equipment inspections; 3) testing and inspecting equipment after a repair; 4) demonstrating compatibility; 5) training of employees, and 6) line leak detection of piping connected to emergency generator tank systems. In preparation for the Office of Administrative Law's approval of the amendments, the State Water Board, on July 17, 2018, distributed through Lyris a notice of upcoming webinars to assist Unified Program Agencies (UPAs) and the regulated UST community in understanding the amendments of the regulations prior to implementation.

The webinars for UPAs are to provide information to assist UST regulators in verifying that UST owners and operators are complying with the amended regulations and includes, but is not limited to, the review of the California Environmental Reporting System (CERS) submittals, required forms, compatibility documentation, workplans for installation, replacement, and repairs of UST components, and how the annual inspection is affected by the amendments to the UST regulations. The webinars for the regulated UST community are to provide information regarding how to comply with the amended regulations for, but not limited to, testing, inspection, UST component compatibility, upgrades, and training.

Webinars Intended for the Unified Program Agencies

Webinar Information:

Date: August 15, 2018	Time: 1:00 p.m. to 4:00 p.m.
Date: September 12, 2018	Time: 1:00 p.m. to 4:00 p.m.

Webinars intended for the Regulated UST Community

Webinar Information:

Date: August 16, 2018	Time: 1:00 p.m. to 4:00 p.m.
Date: August 30, 2018	Time: 1:00 p.m. to 4:00 p.m.
Date: September 26, 2018	Time: 9:00 a.m. to 12:00 p.m.

The webinar can be accessed at:

<https://stateofcaswrcbweb.centurylinkccc.com/CenturylinkWeb/LauraFisher>

Telephone: 1-877-820-7831 Participant pass code: 683375#

Attendees may pose written questions during the webinar. To ask a question, click on the Q&A icon located at the top of the page. Questions will be address at the end of the webinar.

Updating Local Guidance

Consistent with previous UST regulation changes, the State Water Board is revising existing and drafting new Local Guidance (LG) letters regarding compliance with and enforcement of the adopted amendments to the UST regulations. Shortly, State Water Board staff will provide opportunity for UPA review and comment. Once the LG letter is completed the State Water Board will distribute through the UST Program's Lyris email list and post to the UST Program's website. A subscription to the UST Program's Lyris email list may be acquired at:

https://www.waterboards.ca.gov/resources/email_subscriptions/ust_subscribe.html.

Adopted Forms Soon to be Required

The amendments to the UST Regulations include adoption of forms required to be used by UST owners, operators, service technicians, and designated UST operators to comply with testing, inspections, and recordkeeping requirements. The forms are required to be used on and after October 1, 2018. To remind individuals these forms are not required to be used until October 1, a watermark has been included. Upon approval by Office of Administrative Law the watermarks will be removed to allow UST service technicians and designated UST operators to have full access to the adopted forms to prepare for the use of them on and after October 1, 2018. The forms can be found in a PDF and Word fillable format at:

https://www.waterboards.ca.gov/water_issues/programs/ust/forms/.

If you have questions regarding the adopted amendments to the UST Regulations, please contact Mr. Cory Hootman at (916) 341-5668 or Cory.Hootman@waterboards.ca.gov.

Revised Report 6 and New U.S. EPA Reporting Requirements

As previously advised in the June and July monthly updates, and July 9, 2018, Lyris distribution, the State Water Board is currently revising Report 6 to reflect the changes to California UST regulations and new United States Environmental Protection Agency (U.S. EPA) performance measures. States are required to use the new performance measures once they have implemented UST regulations that meet the 2015 federal UST regulations. California amended UST regulations become effective on October 1, 2018.

UPAs will continue to collect data using the current U.S. EPA performance measures, Significant Operational Compliance (SOC), through September 30, 2018. Data

collection for the new U.S. EPA performance measures, Technical Compliance Rate (TCR), will begin on October 1, 2018, with the implementation of the amended UST regulations and CERS violation library.

The State Water Board will provide detailed guidance to the CUPAs on TCR through an updated LG letter. The updated LG-164 will explain the new inspection and reporting criteria. Additionally, beginning in August, State Water Board staff will be hosting multiple informative webinars to clarify changes to the Report 6, TCR criteria and address questions. Webinar dates and times are provided below:

Webinar Information:

Date: August 23, 2018	Time: 1:00 p.m. to 3:00 p.m.
Date: September 11, 2018	Time: 1:00 p.m. to 3:00 p.m.
Date: September 26, 2018	Time: 1:00 p.m. to 3:00 p.m.
Date: October 11, 2018	Time: 9:00 a.m. to 11:00 a.m.
Date: October 23, 2018	Time: 9:00 a.m. to 11:00 a.m.

The webinar can be accessed at:

<https://stateofcaswrcbweb.centurylinkccc.com/CenturylinkWeb/LauraFisher>

Telephone: 1-877-820-7831 Participant pass code: 683375#

Attendees may pose written questions during the webinar. To ask a question, click on the Q&A icon located at the top of the page. Questions will be addressed at the end of the webinar.

Finally, State Water Board staff will continue working with the CalEPA to address enhancements to CERS and ensure successful data collection and reporting to the U.S. EPA.

If you have questions regarding the Report 6 or performance measures, please contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov.

Underground Storage Tank Program Evaluation Checklist

On December 6, 2017, State Water Board sent out a Lyris email with the CUPA Evaluation Checklist in the hopes the CUPAs would find it a useful guidance document in preparation for a performance evaluation, or when performing a self-audit for implementation of the Unified Program. This is a reminder that the Evaluation Checklist can be used internally by CUPAs. The Evaluation Checklist can be found at:

https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/cupa_evaluation_checklist_cover.pdf

Please note, the evaluation checklist is considered a “living” document and will be amended as Deficiency Library, statute, regulation, local guidance letters, and State Water Board correspondence are revised.

If you have questions regarding the checklist, please contact Ms. Lisa Jensen at (916) 319-0742 or Lisa.Jensen@waterboards.ca.gov.

Developmental CERs Data-Mining Tool on the Horizon

Over the past two years the State Water Board staff has been providing training to CUPAs on performing a manual analysis of CERS UST construction and monitoring data. Use of this method has resulted in a visible improvement in CERS data for accepted submittals. However, this method requires CUPAs to perform searches in a spreadsheet manually. Sacramento County Environmental Management Department CUPA (SCEMD) has used their technical expertise to create a semi-automated tool for an improved qualitative review of CERS UST construction and monitoring information. SCEMD recently shared the tool with State Water Board staff and the two agencies are collaborating to develop a comprehensive training program before formally providing the tool to CUPAs at the 21st Annual California Unified Program Training Conference in February, 2019.

Due to the level of complexity and the goal of providing a beneficial and user-friendly tool, the agencies are working closely together to refine presentation materials and will perform training sessions with CUPAs in advance of the conference to enhance training techniques. Ms. Lisa Jensen will begin training sessions in late August as the agencies continue to develop robust training materials.

For more information about obtaining CERS data-mining training, please contact Ms. Lisa Jensen at (916) 319-0742 or Lisa.Jensen@waterboards.ca.gov.

CalFIRE OSFM

Statute of Limitations for Aboveground Petroleum Storage Act (APSA)

Assembly Bill (AB) 1980 (Quirk) was approved by the Governor and chaptered into law on July 20, 2018. AB 1980 extends the statute of limitations for commencing civil enforcement actions for APSA violations from one (1) to five (5) years.

To view the full text of the bill, visit the California Legislative Information website at http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB1980.

Tanks in Underground Areas (TIUGA)

All TIUGAs are now subject to the Aboveground Petroleum Storage Act (APSA). For more information, see the following documents:

A manual of the laws and regulations specific to TIUGAs from Health and Safety Code Chapter 6.67 and the 2016 California Fire Code at:
http://osfm.fire.ca.gov/cupa/pdf/TIUGA-Laws-n-Regs_04Apr2018.pdf

An information bulletin to clarify the exceptions to 2016 California Fire Code, Section 5703.6.2.2 at:

<http://osfm.fire.ca.gov/informationbulletin/pdf/2018/2018-005%20-%20California%20Code%20of%20Regulations,%20Title%2024,%20Part%209.pdf>

A revised fact sheet on TIUGAs at:

<http://osfm.fire.ca.gov/cupa/pdf/TIUGA-FactSheet-23Apr2018.pdf>

A monthly inspection checklist for facilities with one or more TIUGAs and less than 1,320 gallons of petroleum at:

<http://osfm.fire.ca.gov/cupa/pdf/TIUGA-MonthlyInspectionChecklist.docx>

A TIUGA notification form for *optional* use by owner/operators to notify their Unified Program Agency of a potential TIUGA at their facility at:

http://osfm.fire.ca.gov/cupa/pdf/TIUGA_Notification_form-18May2018.pdf



CalEPA
California Environmental
Protection Agency

Edmund G. Brown Jr.
Governor

Matthew Rodriguez
Secretary for Environmental Protection

Unified Program Newsletter – September 2018

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CERS Knowledge Base: Help and FAQ's
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Requirements**

CalEPA

CERS Knowledge Base: Help and FAQ's

How to Add a New User to an Existing Facility

<https://cers.calepa.ca.gov/knowledgebasehelp-faqs/>

If you have questions please email cers@calepa.ca.gov

Chemical Inventory Reporting: Lead Acid Batteries

Revisions to the California Code of Regulations, Title 27 for Unified Program businesses and regulators took effect on July 1, 2018. However, the text within Section 15186.1 (a) and (b) was not revised to reflect the obsolete Federal Hazard Categories of “corrosive” and “...” as they relate to the standard descriptions and values contained in the California Environmental Reporting System (CERS) Chemical Library template CCL-106669. Though the text in Section 15186.1 has not been updated, the template has. To report chemical inventories for lead acid batteries and lead acid battery waste, regulated business handlers should simply utilize the existing chemical inventory template, CCL-106669, provided in CERS as it reflects the correct Federal Hazard Categories. CalEPA will establish a rulemaking to address the correction of the text in Section 15186.1 (a) and (b) in 2019.

For questions regarding Chemical Inventory Reporting for Lead Acid Batteries and Lead Acid Battery Waste, please contact John Paine at (916) 327-5092 or email John.Paine@calepa.ca.gov.

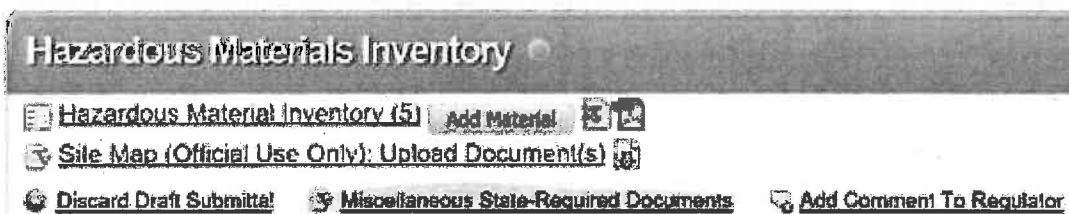
Trade Secret Disclosure Form – Template

As required by changes to California Code of Regulations, Title 27, Section 15188(e) effective July 1, 2018, a completed Trade Secret Disclosure (TSD) form must now

accompany each chemical or mixture claimed as a trade secret by the regulated business in the Hazardous Material Business Plan CERS submittal, to affirm the assertion of each chemical or mixture claimed or disclosed as a trade secret.

- The chemical or mixture formulator or manufacturer who creates the SDS **is** required to submit a TSD form to establish the claim of proprietary formulation.
- The user of a chemical product that indicates a trade secret formulation on the Safety Data Sheet (SDS) for the chemical or mixture **is not** required to submit a TSD form.

The TSD Form must be submitted with the Hazardous Materials Inventory under the “Miscellaneous State-Required Documents” upload feature.



The TSD form is available in Appendix C of Title 27 as well as on the Unified Program webpage at <https://calepa.ca.gov/cupa/publications/>, under the header “Business-to-CUPA Reporting Forms.”

For questions regarding the TSD Form, please contact Melinda Blum at (916) 327-9560 or email Melinda.Blum@calepa.ca.gov.

State Water Board

Adopted Amendments to the UST Regulations

Adopted Amendments Become Effective October 1, 2018

The rulemaking package for the adopted amendments to California Code of Regulations, title 23, division 3, chapter 16 (Underground Storage Tank (UST) Regulations) have been approved by the Office of Administrative Law and filed with the Secretary of State. The amendments become effective on October 1, 2018.

Informational Webinars for the Regulated Underground Storage Tank Community and Unified Program Agencies

On July 17, 2018, the State Water Board distributed notices of upcoming webinars to inform Unified Program Agencies (UPAs) and the regulated UST community on the

amendments to UST Regulations. The notices are posted at:

https://www.waterboards.ca.gov/ust/adm_notices/fed_rec_regs/reg_cup_web.pdf

and

https://www.waterboards.ca.gov/ust/adm_notices/fed_rec_regs/reg_own_web.pdf

The webinars for UPAs are to assist UST regulators in verifying that UST owners and operators are complying with the amended regulations. The presentation includes review of the CERS submittals, required forms, compatibility documentation, workplans for installation, replacement, and repairs of UST components, and how the annual inspection is affected by the amendments to the UST regulations. The webinars for the regulated UST community are to provide information regarding how to comply with the amended regulations for, but not limited to, testing, inspection, UST component compatibility, upgrades, and training.

Webinars Intended for the Regulated UST Community

Webinar Information:

Date: September 26, 2018

Time: 9:00 a.m. to 12:00 p.m.

The link to the webinar is available at:

<https://stateofcaswrcbweb.centurylinkccc.com/CenturylinkWeb/LauraFisher>

Telephone: 1-877-820-7831

Participant pass code: 683375#

Attendees may pose written questions during the webinar. To ask a question, click on the Q&A icon located at the top of the page. Questions will be addressed at the end of the webinar.

Updating Local Guidance

Consistent with previous rule changes, the State Water Board is revising existing and drafting new local guidance (LG) letters regarding compliance with and enforcement of the adopted amendments to the UST requirements. State Water Board staff will provide an opportunity for UPA input. Once the LG letters are complete, they will be distributed through the UST Program's Lyris email list and posted to the UST Program's website.

To subscribe to the UST Program's Lyris email go to

https://www.waterboards.ca.gov/resources/email_subscriptions/ust_subscribe.html.

Adopted Forms Soon to be Required

The amendments to the UST Regulations include adopting forms required to be used to record testing and inspection results, training of facility employees, the UST owner or operator statement of understanding and compliance with the UST Regulations, and designated UST operator identification. The forms are required to be used on and after October 1, 2018. To prevent any confusion of which forms must be used currently, the forms have been watermarked as a sample. The watermark will be removed when the forms are made available to the public through being published in the UST Regulations.

Publication should occur shortly. The forms can be found in a PDF and Word fillable format at https://www.waterboards.ca.gov/water_issues/programs/ust/forms/.

If you have questions regarding the adopted amendments to the UST Regulations, please contact Mr. Cory Hootman at (916) 341-5668 or email cory.hootman@waterboards.ca.gov.

Revised LG-164: Report 6 and New U.S. EPA Reporting Requirements

The State Water Board has revised the Report 6 to reflect the changes to California UST Regulations and new United States Environmental Protection Agency (U.S. EPA) performance measures. States are required to collect data using the new performance measures once they have implemented UST regulations that meet the 2015 federal UST regulations. California amended UST regulations become effective on October 1, 2018.

UPAs will continue to collect data using the current U.S. EPA performance measures, Significant Operational Compliance (SOC), through September 30, 2018. Data collection for the new U.S. EPA performance measures, Technical Compliance Rate (TCR), will begin on October 1, 2018 with the implementation of the amended UST regulations and CERS violation library.

The State Water Board has provided detailed guidance to the UPAs on TCR through an updated LG letter. The updated LG-164 explains the new inspection and reporting criteria. LG letters can be found at https://www.waterboards.ca.gov/water_issues/programs/ust/leak_prevention/lgs/.

Additionally, State Water Board staff has been hosting informative webinars to clarify changes to the Report 6, TCR criteria and to address questions. Upcoming webinar dates and times are provided below:

Webinar Information:

Date: September 26, 2018
Time: 1:00 p.m. to 3:00 p.m.

Date: October 11, 2018
Time: 9:00 a.m. to 11:00 a.m.

Date: October 23, 2018
Time: 9:00 a.m. to 11:00 a.m.

The webinar can be accessed at

<https://stateofcaswrcbweb.centurylinkccc.com/CenturylinkWeb/LauraFisher>

Telephone: 1-877-820-7831 Participant pass code: 683375#

Attendees may pose written questions during the webinar. To ask a question, click on the Q&A icon located at the top of the page. Questions will be addressed at the end of the webinar.

Finally, State Water Board staff will continue working with CalEPA to address enhancements to CERS and ensure successful data collection and reporting to the U.S. EPA. CERS 3.0 updates and reporting capabilities are expected to be released in late March, 2019.

If you have questions regarding the Report 6 or performance measures, please contact Mr. Tom Henderson at (916) 319-9128 or email tom.henderson@waterboards.ca.gov.

Agenda Item IX

ARTICLES OF INTEREST

In My Opinion: More than we can chew?

Posted on September 2, 2018

by Chuck White



In an effort to curb methane emissions, California is mandating a 75 percent reduction in disposal of food waste and other organics within seven years. A policy insider argues such ambitions, while laudable, may not be practical – or even get to the heart of the GHG issue.

This article originally appeared in the August 2018 issue of Resource Recycling. [Subscribe today](#) for access to all print content.

It's been almost 30 years since the passage of AB 939 in California in 1989. That landmark legislation required all California cities and counties, individually, to achieve a 50 percent level of waste diversion from landfills by the year 2000 – under the threat of up to \$10,000 per day in penalties for failure to comply. Most cities and counties were able to achieve that level of diversion. Now, California is raising the bar significantly higher and embarking on a comprehensive new solid waste and recycling strategy – complete with recordkeeping requirements, enforcement and penalties – to require the recovery of 75 percent of organic discards (about 15 million tons per year) by 2025. By all accounts, the sweep and potential impact of this proposed plan have no parallel elsewhere in the United States.

The problem to be solved, according to California policymakers, is that traditional solid waste management practices are resulting in unacceptable greenhouse gas (GHG) emissions that must be urgently reduced. The emerging GHG of concern of policymakers is not carbon dioxide (CO₂) – instead, it's the gases known as short-lived climate pollutants (SLCPs), a category that includes methane.

In September 2016, California Gov. Jerry Brown signed SB 1383, establishing SLCP emission reduction targets in various sectors of California's economy. Fugitive methane that is believed to be emitted from landfills was specifically targeted by this legislation: The requirements of SB 1383 and

pending regulations are based on the need to immediately reduce the amount of fugitive methane released from California landfills by two-thirds – to less than 3 million metric tons of CO₂ equivalent per year.

Because the anaerobic decomposition of organic waste in landfills is what produces methane in those environments, it is the organic component of the waste stream that is being targeted by the state to achieve the goals of SB 1383.

But numerous questions remain about the costs and underlying logic of trying to greatly reduce methane emissions by attempting to make unprecedented steps in organics recovery. It's worth asking: Are the state's goals possible, or has California bitten off more than it can chew?

Methane: A potent GHG

To start this discussion, it's important to understand exactly why methane is receiving so much attention within California policy. A metric called global warming potential (GWP) can help.

The GWP system was developed to allow comparisons of the global warming impacts of different gases.

Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO₂. The larger the GWP for a particular gas, the more that gas warms the planet compared with CO₂ over a given time period.

Methane has a GWP of 28-36 in the 100-year time frame – meaning it is significantly more potent than CO₂ over the course of a century. And methane becomes even more of a concern when we constrict the time period. Over a 20-year time frame, methane is believed to have a GWP of over 80 (some say even higher). Thus, it is argued, there is a need to take immediate and drastic action to reduce these emissions.

The question, however, is whether organics recovery mandates are the best place to focus resources.

Currently, methane emissions from the solid waste sector are believed to only represent less than 2 percent of California's total GHG emissions, according to the most recent edition of the state-issued California Greenhouse Gas Emission Inventory. That's in part because efforts have already been implemented to help address the issue – for example, virtually all of the "waste in place" at California landfills is treated by active gas collection and methane destruction systems, which are specifically installed to reduce methane and other non-methane organic compounds that may be fugitively escaping from California landfills. Since the 1980s, California has developed landfill methane control regulations that are the most stringent in North America, if not the world. In fact, according to the California Air Resources Board (CARB), landfills contribute less than 25 percent of the total methane emissions from all California sources. Other sources such as the largely unregulated agriculture sector emit much more fugitive methane.

Unfortunately, there are not any accepted methods to accurately measure leaking fugitive methane emissions from landfills (as well as from other sources). The only tools available are relatively

simplistic mathematic models that were never designed for accurately determining landfill methane emissions.

These tools were originally created to provide a rough estimate of how soon landfills would be emitting sufficient methane to warrant installation of a gas collection and destruction system.

That lack of precision helps explain why, historically, there has been significant disagreement about the amount of methane that fugitively escapes from California landfills as a whole. The solid waste industry has noted a 95 percent methane capture and destruction rate at certain California landfills using laser monitoring tools. However, environmental advocates have suggested a statewide methane capture and destruction rate that is less than 50 percent. CARB has followed the lead of U.S. EPA and determined the California landfill methane capture and destruction rate to be 75 percent (no credit is given for landfill storage of sequestered carbon in organic materials, such as cellulose, that do not substantially decompose in an anaerobic landfill environment). However, CARB has acknowledged that other estimates of landfill methane emission controls may increase the collection efficiency at regulated landfills to 80-85 percent and further evaluation is needed.

Using that 75 percent number, CARB and the California Department of Resources Recycling and Recovery (CalRecycle) have estimated that California landfills are responsible for emitting about 8.4 million metric tons of CO₂-equivalent GHGs per year. As mentioned earlier, the goal of SB 1383 is to cut that number to less than 3 million metric tons.

The proposed path

Most other industries would be celebrated for implementing systems in cooperation with federal and state regulations to capture 75 percent of GHG emissions – but not the solid waste sector.

CalRecycle and CARB believe the highly regulated gas control and destruction systems are not doing enough to control fugitive methane being emitted by landfills to the atmosphere in California. However, rather than find better ways to directly control methane emissions, to date California policymakers have settled on the approach of restricting the amount of organic waste that is allowed to be disposed in California landfills. (This strategy also appears to ignore the fact that organic waste already disposed in landfills will continue to decompose and produce methane for 30 years or more.)

SB 1383 mandates that CalRecycle achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020, and a 75 percent reduction by 2025. The bill gives CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets.

In May of 2018, CalRecycle released its final proposed regulatory proposal in an attempt to achieve these goals by exacting mandatory recycling and recovery of organic waste by virtually all sectors of the California economy: residents, service providers, businesses and local government. Some form of these regulations is expected to be adopted into law by the end of 2018.

By most accounts, the proposed CalRecycle regulations are among the most sweeping and significant solid waste regulations to be proposed at the state level anywhere in the United States. Here are the key points on how the state foresees reaching 75 percent organics diversion:

- Composting, food recovery, anaerobic digestion to produce methane fuel, separated biomass conversion to generate electricity, and limited land application are the principle methodologies that are proposed to be allowed by CalRecycle, although some added technologies may be approved in the future.
- Single-cart systems (mixed-waste processing) can be used, but the receiving mixed-waste processing facility must demonstrate a 50 percent recovery rate starting in 2022 and 75 percent in 2025 – with apparently no credit being given for other recycling programs that a city or county may operate in conjunction with the single-cart system.
- All facilities must measure and report the amount of residual organic waste remaining after processing along with next destination. This will enable CalRecycle to keep track of the total amount of organic waste diversion.
- All generators (residential, commercial, industrial and agencies) in the state must comply, although some flexibility is allowed for rural areas and commercial sites with limited space for containers and carts.
- Every city and county must directly procure products from recycled organic waste at approximately 10 percent of total organic recycling needed. The draft proposed regulations currently limit this procurement to compost, renewable natural gas for transportation, and paper – recordkeeping and reporting are also required in this realm.
- Every city and county must have an edible food recovery program to capture 20 percent of what is currently disposed in landfills by 2025.
- There will be extensive enforcement and penalty requirements imposed on cities, counties and, ultimately, individual waste generators by CalRecycle. Jurisdictions are ultimately liable for up to \$10,000 per day for failure to implement an organic waste recycling program consistent with CalRecycle regulations. Households could be fined up to \$500 per day for failure to cooperate with the organic waste collection programs.

What it means on the ground

Clearly, the state's bold proposal will need the development of new organics processing capabilities as well as work by a variety of stakeholders to keep organics out of the disposal stream. These steps will not be easy or low-cost.

For instance, it's estimated approximately 100 organic waste recycling and processing facilities (each at an average capacity of about 750 tons per day) will need to be designed, permitted and constructed throughout California to achieve the diversion targets. The capital expenditure for these facilities is expected to be on order of \$2 billion to \$3 billion (\$20 million to \$30 million per facility of that size).

Operation and maintenance costs would be in addition.

Unfortunately, limited funding is available from the state to underpin such projects. Currently, the state budgets about \$25 million from its GHG cap-and-trade program per year to a grant and loan network for the development of needed technologies, but that sum represents less than 10 percent of required expenditures to meet the 75 percent organic waste diversion goal. The rest of the cost

will surely fall to rate payers, with early analysis suggesting residential solid waste and recycling rates would increase by \$7 to \$20 per month and commercial rates seeing even higher boosts.

Also worth noting is the fact that alternative daily cover (ADC) and alternative intermediate cover (AIC) count as disposal rather than beneficial use under new California regulations. Landfills are required to provide such covers to protect human health and the environment – yet organic waste-derived materials for this purpose are not considered to be a beneficial use (although some beneficial landscaping use at landfills will still count as recycling).

Another area of concern about the recent proposal is the seeming lack of attention given to markets. If enormous efforts are devoted to diverting and processing organics in the state, downstream options must be secured or else the entire system risks collapse.

The proposal's procurement requirement for local governments is an example of a market development strategy, but it also comes with complications. The amount of procurement by each city and county is tied to the number of individual city/county employees. This could impose a significant procurement burden when other sectors, including CalTrans and other state agencies, as well as agriculture stakeholders, have a much greater demand and capability for the use of recovered organic materials.

In addition, markets demand that recovered organic waste be kept clean. In the rush to divert more material to hit state mandates, collection carts could become too contaminated for processors. Agencies will have to address how to effectively handle contaminated and commingled organic waste, and this will significantly impact the cost of collection and processing to achieve separated organic wastes.

It's clear that extensive organic facility capacity planning will be required of cities and counties to document to CalRecycle that sufficient processing infrastructure is in the works. But this does nothing to develop markets for all of the recovered organics the state hopes to generate in the coming years.

A 'command and control' approach

Can such an organic waste diversion and recycling program as authorized by SB 1383 and proposed by CalRecycle be successfully implemented? CalRecycle representatives say they have no choice, that this is the program that the legislature and the governor have directed them to implement.

Many progressive California cities and counties, such as San Francisco, Berkeley and Alameda, are already implementing programs that, in many respects, are similar to that being proposed by CalRecycle. The difference, of course, is that CalRecycle is proposing a "command and control" program that will emanate from Sacramento and be expected to take hold in virtually every part of America's most-populous state.

Time, of course, will tell how everything plays out. CalRecycle is on track to adopt these draft proposed regulations by the end of 2018, although further changes and adjustments to the

regulations will likely be forthcoming between now and then as part of the formal rule-making process.

If the program cannot be implemented as currently framed, a whole new round of questioning begins.

Will more attention be paid to directly limiting and controlling methane emissions at landfills? How will that be accomplished?

It's more than likely we will see further clarifying legislation on this matter in the upcoming years to address some or all of the problems and inconsistencies of this newly proposed program.

Chuck White is senior advisor at Manatt, Phelps & Phillips, LLP, a Los Angeles-based firm providing legal services, advocacy and business strategy. He can be contacted at (916) 552-2365 or cawhite@manatt.com.

Posted in [Opinion](#), [Resource Recycling Magazine](#) | Tagged [Aug. 2018](#), [legislation](#), [Organics](#) |

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Mary Pitto

From: cpsc-battery-stewardship-listserv@googlegroups.com on behalf of Joanne Brasch <joanne@calpsc.org>
Sent: Monday, October 1, 2018 1:12 PM
To: Joanne Brasch
Subject: Cheaper Battery Is Unveiled as a Step to a Carbon-Free Grid | The Sacramento Bee

Hi CPSC Battery List-

Below is an article from Sept 26, 2018 about the new rechargeable zinc batteries.

For questions, concerns, and ideas regarding batteries, contact Doug@calpsc.org

Cheaper Battery Is Unveiled as a Step to a Carbon-Free Grid

By Ivan Penn
[New York Times](#)

A rechargeable zinc air battery made by NantEnergy, an energy company headed by the California billionaire Patrick Soon-Shiong, in Los Angeles, Sept. 23, 2018. Soon-Shiong said the batteries will store power at far less than the cost of lithium-ion batteries, which use scarce materials and are more vulnerable to fires and explosions. (Alex Welsh/The New York Times) ALEX WELSH NYT

Lithium-ion batteries have become essential for powering electric cars and storing energy generated by solar panels and wind turbines. But their drawbacks are also by now familiar: They use scarce minerals, are vulnerable to fires and explosions, and are pricey.

A plentiful, safe and more affordable alternative would be worth a lot.

On Wednesday, an energy company headed by the California billionaire Patrick Soon-Shiong is unveiling a rechargeable battery operating on zinc and air that can store power at what it says is far less than the cost of lithium-ion batteries.

Tests of the zinc energy-storage systems have helped power villages in Africa and Asia as well as cellphone towers in the United States for the past six years, without any backup from utilities or the electric grid, Soon-Shiong said.

“It could change and create completely new economies using purely the power of the sun, wind and air,” Soon-Shiong, a surgeon and a biotechnology entrepreneur, said in an interview in Los Angeles before the announcement.

Soon-Shiong and his company, NantEnergy, are presenting the product at the One Planet Summit in New York, an event meant to further the goals of the Paris climate accords. He developed the technology with support from the World Bank.

The battery units, in conjunction with solar arrays, can be combined to create a microgrid system powering a village or a larger area, Soon-Shiong said. They have been deployed at more than 1,500 sites supporting 110 villages in nine countries in Asia and Africa — including places that otherwise relied on generators or even lacked electricity, he said.

The International Finance Corp., an arm of the World Bank fostering private-sector projects in developing countries, was an early investor in NantEnergy, and an agency representative sits on the company’s board.

The U.S. Department of Energy made development grants to NantEnergy (formerly known as Fluidic Energy) totaling \$5 million, Soon-Shiong said.

NantEnergy, based in Phoenix and in El Segundo, California, says it expects to expand the use of its product in telecommunications towers and eventually extend it to home energy storage, beginning in California and New York. Beyond that, it anticipates use in electric cars, buses, trains and scooters.

Soon-Shiong, who recently acquired The Los Angeles Times and is a part owner of the Los Angeles Lakers, made a fortune from the development of drugs to fight diabetes and breast cancer and the sale of pharmaceutical companies he had created.

His energy company says it is the first to commercialize the use of zinc air batteries and has more than 100 related patents. It is taking orders for delivery next year and sees the potential for a \$50 billion market.

Soon-Shiong said the cost of his zinc air battery had dropped steadily since development began. NantEnergy says the technology costs less than \$100 per kilowatt-hour, a figure that some in the energy industry have cited as low enough to transform the electric grid into a round-the-clock carbon-free system.

The prevailing cost of lithium-ion technology varies, depending on the scale and application. Yogi Goswami, distinguished university professor and director of the Clean Energy Center at the University of South Florida, estimated that it is most likely \$300 to \$400 a kilowatt-hour.

“This is a game changer,” Goswami, who was not involved in the effort, said of the advances claimed by NantEnergy. “You have to have storage.”

Goswami said he warned in congressional testimony a quarter-century ago that storage advances would be needed as the use of solar and wind power grew. That imperative has been somewhat overshadowed as the fracking boom made natural gas plentiful.

“Until recently it didn’t make any sense to worry about storage because we had cheap gas,” said Mark Cooper, senior research fellow for economic analysis at the Institute for Energy and the Environment at the Vermont Law School.

But energy storage is increasingly needed to manage the ebb and flow of solar and wind energy that sometimes forces places like California to pay other states to take surplus power. And that need is driving innovation and decreasing cost.

“Obviously it comes at a point where everyone is already looking for storage,” Cooper said.

“Capitalism isn’t going to deal with a problem where there isn’t scarcity. In capitalism what we get is relentless reductions in cost.”

In addition to their deployment in Asia and Africa, NantEnergy’s batteries have been used by Duke Energy, a major utility, to power communications towers, including a location in North Carolina that withstood the effects of Hurricane Florence recently and Hurricane Irma last year.

The product design is simple: plastic components and shell casing, a circuit board and zinc oxide, all in a package the size of a briefcase.

In charging the batteries, electricity from solar installations is stored by converting zinc oxide to zinc and oxygen. In the discharge process, the system produces energy by oxidizing the zinc with air. When it is time to charge, the process begins again.

The NantEnergy battery can provide power for up to 72 hours on a single charge, meaning it could have lasted throughout the period of cloud cover and stormy weather from Hurricane Florence in the Carolinas.

Dan Reicher, an assistant secretary of energy in the Clinton administration, said successful development of a rechargeable zinc air battery could be a milestone in energy storage. He said the challenge had been to make such batteries reliable for continuous use.

“That’s an attractive characteristic if it’s true,” he said.

But he cautioned that a battery's cost per kilowatt-hour depended on the application and scale. And he said the company's technology would have to live up to scrutiny.

"People do make claims and offer what they feel like is a legitimate set of data," he said. "I'm always elated to hear progress in storage, but you have to be careful."

NantEnergy said the systems it had already put in place had reduced the need for 1 million lead acid batteries, offset 4 million liters (about 1 million gallons) of diesel fuel and avoided the release of 50,000 metric tons of carbon dioxide since 2012.

Given its abundance, "zinc is what we call an essential mineral," Soon-Shiong said. The company gets its zinc from Indonesia, he said, but substantial supplies are also available in North America.

Batteries are not the only form of energy storage that the power industry is pursuing. Other technologies include compressed air in caves and the long-used pumped hydroelectric plant storage. The Los Angeles Department of Water and Power is proposing to turn Hoover Dam into a type of giant battery to manage excess solar and wind electricity at a cost of \$3 billion.

Lyndon Rive, a co-founder of SolarCity — now a part of his cousin Elon Musk's company, Tesla — said recently that solar and storage innovations were likely to transform the electricity market.

"Overall, the trajectory is for solar to be the No. 1 source," said Rive, who left Tesla after the two companies merged two years ago.

Soon-Shiong said he knew Musk — a fellow South African native — and considered him a visionary for his accomplishments in electric vehicles and energy storage.

"We both are trying to make the world a better place," Soon-Shiong said.

Tesla has based its businesses on lithium-ion technology and Musk has told shareholders that the company may get the cost of lithium-ion cells down to \$100 a kilowatt-hour this year.

NantEnergy made its announcement weeks after California signed into law about \$1 billion in subsidies for residential energy storage and mandated 100 percent carbon-free electricity in the state by 2045.

"California is obviously in need of that kind of breakthrough to meet our goals," said Bernadette Del Chiaro, executive director of the California Solar and Storage Association, a trade group. "I cannot claim to be in absolute certainty that this is everything they say it is, but it's exciting. It's this kind of breakthrough that we expect from our innovators."



← [Back to Info Hub](#)

October 1st, 2018

BLOG: Holding the Course: Domestic Reactions to Recycling Markets Spur Hope, Not Despair



By Liz Bedard

As an employee of both The Recycling Partnership and the Association of Plastic Recyclers (APR), I have the unique privilege of viewing the recycling industry from all sides. Suppliers, manufacturers, MRFs, haulers, residents, communities, corporations: you name the audience, I've talked to them about recycling.

From this vantage point, my main message to communities is this: Hold the course. Long-term recycling is sound and well-rooted. There is light at the end of the tunnel. You can – and should! – take heart in knowing that industry leaders and big-name corporations are investing in recycling solutions to help your programs thrive, both now and in the future.

First, let's set the record straight about the value of recycling in the US economy. Recyclables are a commodity – as with any commodity, their value goes up and down over time. However, as an industry, recycling feeds the US economy by:

- providing employment for over 470,000 US citizens, earning \$30.8 billion in wages and benefits for truck drivers, sorters, manufacturers, and similar positions
- creating nearly \$117 billion in economic activity
- generating approximately \$4.95 billion in federal, state, and local tax revenue and
- producing \$8.26 billion in federal taxes paid by the recycling industry and its employees
- Statistics courtesy of ISRI's 2017 Economic Impact Study

Now, it's no secret that China's National Sword policies have resulted in severe market fluctuations across the US, thwarting the economy and upending single-stream programs. However, the industry's response to China's National Sword policies are strengthening the field itself.

Did you know that The Recycling Partnership just received a \$10 million dollar grant from PepsiCo to improve recycling access for 125 million families over the next 10 years? That's in addition to The Partnership's 40 funding partners whose dollars build recycling infrastructure, fight contamination and increase capture of recyclables. The Partnership isn't the only organization doing big things in this space: Closed Loop Partners, via \$100 million in funding from corporations such as Walmart, 3M, and Johnson & Johnson, is investing in every part of the recycling industry.

Furthermore, the recycling industry is investing in itself. The recycled paper industry alone has invested over \$1 billion to expand capacity for domestic recycled paper which is coming down the pipeline in the next 18 months from Cascades, Green Bay Packaging, and Pratt Industries.

And APR, is celebrating the one-year anniversary of our Recycling Demand Champions program, in which companies commit to purchase new volume recycled plastic resin through “work in progress” durable goods or other applications, thereby playing a prominent role in expanding the market for residential plastics. This drives investment, increases supply and produces more, high-quality PCR into the market. Inaugural Demand Champions include Procter & Gamble, Campbell’s Soup, Target, Unilever, Nestle and Coca Cola North America, along with 20 others.

This domestic reaction to the recycling industry’s top issues should spur hope in the hearts and minds of recycling coordinators everywhere. So, don’t give up! These are a few examples of the people and dollars currently backing the recycling industry, investing in its future and the long-term success of your program. There is a light at the end of the tunnel...

Liz Bedard is the Senior Director of Industry Collaboration for The Recycling Partnership and the Director of the Olefins / Rigids Division for APR. She can be reached at ebedard@recyclingpartnership.org.

Need some free resources to boost your recycling program? Check out our For Communities page to get started!

*Statistics courtesy of ISRI’s 2017 Economic Impact Study

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MRF of the Month: Monterey Regional Waste Management District Materials Recovery Facility (<https://resource-recycling.com/recycling/2018/07/25/mrf-of-the-month-monterey-regional-waste-management-district-materials-recovery-facility/>)

Posted on July 25, 2018

by [Jared Paben](https://resource-recycling.com/recycling/author/jared-paben/) (<https://resource-recycling.com/recycling/author/jared-paben/>)

Monterey Bay is known for its whales, dolphins, seals and other sea life. Accordingly, the Monterey Bay Aquarium is famous for its living kelp forest and early success in Great White Shark care.

But a nearby materials recovery facility has been preoccupied with a very different type of creature: owls. When deconstructing the old MRF to make way for the new one, crews discovered barn owls nesting inside the building. Instead of evicting them, the Monterey Regional Waste Management District worked with local high schools to build 10 owl boxes to put in nearby.



"The boxes were installed in late February 2018 and by April we discovered several nesting owl pairs had taken up residence," said Tim Brownell, operations manager for the district. "The barn owls are voracious consumers of rodents and now provide the MRF with a natural method of pest control."

Of course, owls aren't the only noteworthy feature of the recently opened facility.

The \$24 million MRF sports one sorting line to handle single-stream recyclables and mixed waste, and a second line to tackle construction and demolition debris. The equipment sits within a 120,000-square-foot building. The site includes an additional four acres of paved areas for vehicles, C&D unloading and material movement.

Single-stream residential material comes in from about 100,000 households in the region, and the MRF also receives single-stream recyclables from businesses.

Designed, built and installed by Eugene, Ore.-based Bulk Handling Systems (BHS), the sorting system leverages a number of advanced technologies. Specifically, it includes two metering infeeds, a bag breaker, six debris roll screens, two Nihot single-drum separators, two polishing screens, an NRT FiberPure optical sorter, three NRT SpydIR optical sorters, an eddy current separator, six magnets, a controls package and a Kadant PAAL Konti baler.

The lines are designed to sort a minimum of 30 tons per hour of single-stream recyclables, 40 tons per hour of municipal solid waste (MSW) and 40 tons per hour of C&D debris. This year, the district expects to process between 45,000 and 55,000 tons of single-stream material and about 50,000 tons of C&D debris. Brownell said MSW streams will be processed on a second shift, which will begin later this year or in 2019.

In May, 71 percent of single-stream recyclables processed by the facility were fiber and 29 percent were commingled containers. That month, the recyclables residue rate was 15 percent.

The residue rate has been largely impacted by China's National Sword initiatives, Brownell said. Various plastic and fiber materials that had been accepted in the Monterey County area are no longer able to be marketed. As a result, they're now counted as residual. Affected materials include film, plastic-coated fibers, PVC, PS and No. 7 other plastics.

The facility has a couple of features that make it unique. First, 100 percent of its power comes from an adjacent landfill gas-to-energy plant. Second, it also salvages reusable goods so they can be sold at the Last Chance Mercantile, located on-site.

"The district has staff on the tipping floor and as reusable goods are spotted in incoming loads those items are removed and loaded on trailers to be delivered to the Last Chance Mercantile," Brownell said. "The store has a huge following and great reputation in the local community."

The Monterey Regional Waste Management District Materials Recovery Facility employs 70 full-time staff on one 10-hour shift each day.

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Millions set aside for recycling loans in one state (<https://resource-recycling.com/recycling/2018/08/28/mil-set-aside-for-recycling-loans-in-one-state/>)

The Pennsylvania Recycling Markets Center will help direct \$5 million in loans to boost recycling through a partnership with the Closed Loop Fund.

This article originally appeared in the July 2018 issue of Resource Recycling. Subscribe today (<https://resource-recycling.com/recycling/subscribe/magazine-trial-subscription/>) for access to all print content.

TECH SPECS
MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT MRF
LOCATION: Monterey County, Calif.
START-UP DATE: Feb. 12, 2018
NUMBER OF PROCESSING LINES: One for single-stream and mixed waste and one for C&D debris
THROUGHPUT: Expected 45,000-55,000 tons of single-stream recyclables in 2018
RESIDUE RATE: 15 percent

Chinese restrictions a 'huge deal' for major hauler (<https://resource-recycling.com/recycling/2018/08/28/chinese-restrictions-a-huge-deal-for-major-hauler/>)

The head of Waste Connections says the economics of recycling must change. Otherwise, companies' sorting costs will further outpace the revenue they fetch from commodity sales.

Quantifying environmental benefits of recycled plastic (<https://resource-recycling.com/recycling/2018/08/28/quantifying-environmental-benefits-of-recycled-plastic/>)

Researchers have calculated substantial upsides from making products out of recycled PET, HDPE and PP instead of prime plastics.

Chinese tariffs on U.S. recyclables go into effect (<https://resource-recycling.com/recycling/2018/08/28/chinese-tariffs-on-u-s-recyclables-go-into-effect/>)

The U.S. and China have fired their latest salvo in their ongoing trade war, and this time tariffs have been applied to a number of additional U.S. recyclables.

Cox to pay \$3.3M to settle e-scrap disposal case (<https://resource-recycling.com/recycling/2018/08/28/cox-to-pay-3-3m-to-settle-e-scrap-disposal-case/>)

A cable services provider is the latest company to sign a multi-million-dollar agreement to settle allegations of improper disposal of scrap electronics in California.

Another Chinese firm to buy a U.S. paper mill (<https://resource-recycling.com/recycling/2018/08/28/another-chinese-firm-to-buy-a-u-s-paper-mill/>)

A major Chinese fiber recycling company plans to purchase and restart a shuttered Kentucky pulp and fine paper mill.

Readers weigh in: Is recycling a 'scam'? (<https://resource-recycling.com/recycling/2018/08/21/readers-weigh-in-is-recycling-a-scam/>)

After Resource Recycling highlighted conservative commentators who questioned the foundations of materials recovery, a number of industry professionals jabbed back, noting the economic strengths still inherent in recycling.

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Glass on the chopping block in Pennsylvania county (<https://resource-recycling.com/recycling/2018/09/18/glass-on-the-chopping-block-in-pennsylvania-county/>)

Posted on September 18, 2018

by [Jared Paben](https://resource-recycling.com/recycling/author/jared-paben/) (<https://resource-recycling.com/recycling/author/jared-paben/>)

Citing market upheavals this year, Erie County, Pa. officials are asking people to stop putting glass in their curbside receptacles.

The material is already going to landfill as it stands, the county's sustainability coordinator told [WENY News](http://www.wenyc.com/story/39063119/glass-items-being-eliminated-from-erie-county-recycling) (<http://www.wenyc.com/story/39063119/glass-items-being-eliminated-from-erie-county-recycling>).

The county of 275,000 people along Lake Erie has some jurisdictions serviced by municipal haulers and others by private, contracted haulers. Municipalities contracting with haulers will continue to collect glass until the contracts are up, according to the article.



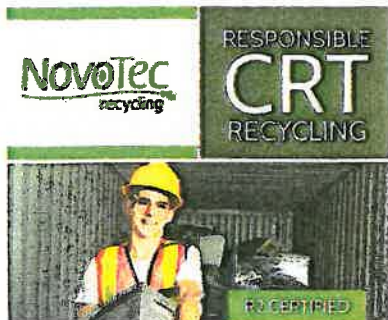
"Glass, due to its weight and how easily contaminated it can become in the single-stream recycling process, has increased the cost to recycle glass bottles and jars," according to the county's [recycling program](https://www.eriecountypa.gov/county-services/other-services/recycling/what-can-i-recycle.aspx) (<https://www.eriecountypa.gov/county-services/other-services/recycling/what-can-i-recycle.aspx>). "Due to the high cost, there are few, if any, outlets for recycled glass. Therefore most recycling programs will phase out glass as an acceptable material, if they haven't already."

Other materials that'll be phased out of programs in the county include shredded paper, envelopes, postcards or other small papers.

Photo credit: [Huguette Roe/Shutterstock](#)

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Containerboard mill conversion will incorporate mixed paper (<https://resource-recycling.com/recycling/2018/07/31/containerboard-mill-conversion-will-incorporate-mixed-paper/>)

Posted on July 31, 2018

by Colin Staub (<https://resource-recycling.com/recycling/author/colinstaub/>)

A Virginia newsprint mill will undergo a nearly \$300 million conversion to produce recycled paperboard. The facility will use mostly OCC and some mixed paper as feedstock.

Quebec-based fiber giant Cascades [announced last week](https://www.cascades.com/en/media-centre/press-releases-and-news/press-release/2018/6070/cascades-announces-acquisition-of-the-bear-island-virginia-newsprint-mill-and-plans-to-convert-facility-to-recycled-containerboard-production) (<https://www.cascades.com/en/media-centre/press-releases-and-news/press-release/2018/6070/cascades-announces-acquisition-of-the-bear-island-virginia-newsprint-mill-and-plans-to-convert-facility-to-recycled-containerboard-production>) it has acquired the idled



White Birch newsprint mill in Bear Island, Va. and is planning a major plant conversion in the next few years. The newsprint machine will be converted to produce recycled lightweight linerboard and medium, used in containerboard manufacturing.

Although the primary feedstock will be OCC, company leaders during a conference call noted that mixed paper, which has been cheap and abundant since China stopped accepting the material, will play a role in the feedstock mixture. Other mill owners have also moved of late to [take in more recovered fiber](https://resource-recycling.com/recycling/2018/06/26/major-midwest-mill-to-use-mixed-paper-and-occ/) (<https://resource-recycling.com/recycling/2018/06/26/major-midwest-mill-to-use-mixed-paper-and-occ/>) as disruptions in the Asian market take hold.

"The percentage, at this point, we are not going to disclose, but certainly this is one of our priorities when we will build this mill," said Charles Malo, chief operating officer of Cascades Containerboard Packaging.

The Bear Island plant is a newsprint mill built in 1979 with a capacity of 235,000 metric tons per year. After the conversion, which will cost between \$275 million and \$300 million and will take roughly three years, Cascades predicts the mill will have a capacity of 400,000 metric tons per year.

White Birch closed the facility in June 2017, citing declining newsprint demand and a high cost of production. The company put the facility up for sale. It also [recently announced](http://www.us.jll.com/united-states/en-us/news/5190/white-birch-paper-plans-restart-of-its-ashland-va-mill) (<http://www.us.jll.com/united-states/en-us/news/5190/white-birch-paper-plans-restart-of-its-ashland-va-mill>) it would bring the mill back on-line to fill a temporary shortage of newsprint. Cascades announced on July 26 it has acquired the facility for \$34.2 million.

Under the terms of the deal, White Birch will continue to operate the site as a newsprint mill for the next 27 months, as Cascades prepares for the conversion. The conversion will require an eight-month period once Cascades takes full operation of the site.

During the conference call, company officials stated that the mill will not produce pulp for sale, despite recent media reports that suggested it would.

The mill sits on roughly 250 acres of land, about 20 miles from Richmond, Va. During the investors call, company executives said the large footprint could allow for future expansions, possibly including a converting facility to use the mill output.

Photo credit: ETAJOE/Shutterstock

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- [Low OCC prices continue to benefit U.S. mills](https://resource-recycling.com/recycling/2018/08/14/low-occ-prices-continue-to-benefit-u-s-mills/) (<https://resource-recycling.com/recycling/2018/08/14/low-occ-prices-continue-to-benefit-u-s-mills/>)
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- [China to enact tariffs on OCC and other recycled paper](https://resource-recycling.com/recycling/2018/08/08/china-to-enact-tariffs-on-occ-and-other-recycled-paper/) (<https://resource-recycling.com/recycling/2018/08/08/china-to-enact-tariffs-on-occ-and-other-recycled-paper/>)

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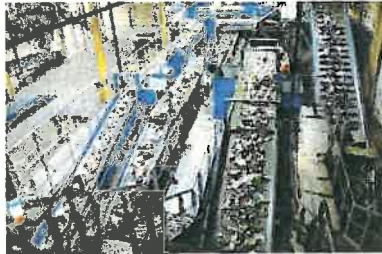
Maryland plastics sortation plant will not reopen (<https://resource-recycling.com/recycling/2018/09/18/maryland-plastics-sortation-plant-will-not-reopen/>)

Posted on September 18, 2018

by Colin Staub (<https://resource-recycling.com/recycling/author/colinstaub/>)

An idled plastics recovery facility is being dismantled and its components sold, after efforts to reopen it for the past year have not panned out.

The former joint-venture QRS Recycling plant in Dundalk, Md. [suspended operations](https://resource-recycling.com/recycling/2017/08/11/qrs-canusa-hershman-will-idle-maryland-prf/) (<https://resource-recycling.com/recycling/2017/08/11/qrs-canusa-hershman-will-idle-maryland-prf/>) in August 2017. Operators of the facility, which accepted mixed-plastic bales and separated them into individual resin and color streams, have since been working to bring the plant back on-line with a new investment partner.



But more a year after the plant was idled, those efforts have been scrapped.

"After a multitude of discussions with a multitude of various parties to try to keep the operation running in place, we were unable to structure a transaction with anybody," said Jonathan Sloan, president of Canusa Hershman Recycling, in an interview with Resource Recycling.

Without an investor, the 128,000-square-foot Baltimore-area facility has closed permanently and some of its equipment is being parted out for sale.

"Unfortunately, we were not able to find a buyer to run it in place," Sloan said, noting that the company is disappointed to not be able to serve the mixed-plastics market any longer. The decision was made within the past 30 days, he said.

The entire bottle sorting system has been sold to be repurposed for a residential recyclables processing operation, Sloan said. It is currently being dismantled. The fate of the wash line is not yet certain.

Innovative model

Canusa Hershman and partner QRS Recycling opened the Maryland plant in 2015, siting it to serve regional MRFs and reclaimers. The facility included a bottle sort system and wash line, and it would bring in mixed plastic bales from MRFs for further sorting. That made it one of the few U.S. outlets for mixed plastics Nos. 3-7.

The facility was one of the first industry efforts to receive financial support from the Closed Loop Fund, a group backed by consumer-products giants and other companies that works to bolster U.S. recycling through corporate financing. The group provided a \$2 million loan for the QRS plant.

But less than two years after opening, the facility publicly indicated it was experiencing obstacles. In August 2017, QRS and Canusa Hershman said they would idle the plant to "enable an optimization of the equipment." They also announced they were looking at several proposals that would bring new technology into the facility, and that could lead to a joint-venture or acquisition of the facility.

That announcement also stated that the "fundamentals of the post-consumer plastic resin business are currently challenged." At the 2018 Plastics Recycling Conference, Greg Janson of QRS pointed to declining oil prices, which spurred virgin plastic production, as a prime factor in the challenges mixed plastics processors have faced.

Shortly after the idling, Closed Loop Fund officials stated that such [challenges were expected](https://resource-recycling.com/recycling/2017/08/22/closed-loop-fund-knew-qrs-face-lot-challenges/) (<https://resource-recycling.com/recycling/2017/08/22/closed-loop-fund-knew-qrs-face-lot-challenges/>) when the facility launched, and that the plant could serve as a pilot project for development of the wider domestic industry in the future.

Lack of interest despite market downturn

Post-consumer mixed plastics processing capacity has been slow to develop in the U.S. Breaking mixed-plastic bales down to separate out specific resins is either a labor-intensive process, or it requires expensive equipment to replace human sorters. And with China as a reliable buyer for years, the incentive for domestic investments was not as pressing.

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After China virtually ceased mixed plastic imports this year, many industry experts have predicted that domestic plastic processing infrastructure will increase. That has taken shape in the form of several Chinese-backed processing plants that have been announced in recent months.

But for the Maryland plant, although several parties expressed interest – and at least one major company submitted a letter of intent (<https://resource-recycling.com/recycling/2018/03/06/east-coast-prf-road-reopening/>) to acquire the facility – in the end none of the deals came through (<https://resource-recycling.com/recycling/2018/03/20/potential-prf-transaction-falls-through/>).

"Our preference clearly would have been to maintain the facility intact and have somebody run it," Sloan said, "but unfortunately, we couldn't find somebody to take on that role."

Photo credit: Resource Recycling file photo.

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- Chinese company to open S.C. recycling facility (<https://resource-recycling.com/recycling/2018/09/11/chinese-company-to-open-s-c-recycling-facility/>)
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- Florence causes 'enormous mess' in Carolinas (<https://resource-recycling.com/recycling/2018/09/18/florence-causes-enormous-mess-in-carolinas/>)
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event, we're introducing several of the recycling stakeholders who will share expert insights from the stage.

Contaminated OCC cited in felony case (<https://resource-recycling.com/recycling/2018/09/18/contaminated-occ-cited-in-felony-case/>)

A New York recycling company executive has pleaded guilty to felony charges connected to a dispute over contamination in recycling loads collected from a commercial client.

Florence causes 'enormous mess' in Carolinas (<https://resource-recycling.com/recycling/2018/09/18/florence-causes-enormous-mess-in-carolinas/>)

Hurricane Florence has forced programs to suspend collection and led haulers to remind residential customers about proper storm debris management. At least one packaging giant has been significantly impacted by the hurricane.

Glass on the chopping block in Pennsylvania county (<https://resource-recycling.com/recycling/2018/09/18/glass-on-the-chopping-block-in-pennsylvania-county/>)

Citing market upheavals this year, Erie County, Pa. officials are asking people to stop putting glass in their curbside receptacles.

Pricing for post-consumer grades remains constant (<https://resource-recycling.com/recycling/2018/09/18/pricing-for-post-consumer-grades-remains-constant/>)

Residential fiber values have flattened out, while post-consumer PET prices continue a steady recent climb.

Research provides higher U.S. disposal estimates (<https://resource-recycling.com/recycling/2018/09/18/research-provides-higher-u-s-disposal-estimates/>)

Yale University researchers estimate 230 million metric tons of MSW were landfilled in the U.S. in 2015, nearly twice the estimate from federal officials.

In Our Opinion: Why deposits make sense for retailers (<https://resource-recycling.com/recycling/2018/09/11/in-our-opinion-why-deposits-make-sense-for-retailers/>)

Long resistant to their role in deposit programs, some retailers are beginning to warm up to bottle and can redemptions as they realize the marketing and sales advantages.

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Markets update: More domestic talk as overseas options dwindle (<https://resource-recycling.com/recycling/2018/08/21/markets-update-more-domestic-talk-as-overseas-options-dwindle/>)

Posted on August 21, 2018

by [Colin Staub](https://resource-recycling.com/recycling/author/colinstaub/)

Governments in Southeast Asia are following through on promises to heavily restrict scrap imports. Meanwhile, a U.S. senator has singled out a shuttered West Coast paper mill as a possible outlet for recovered fiber.

The following is a roundup of recent activity in recovered material markets.

Thai scrap ban permanent

Two months after the country enacted an immediate prohibition on scrap plastic and e-scrap imports, the country's government has released its longer-term plans.

Thailand has experienced a massive increase in scrap material imports this year, particularly on the plastics side, after many exporters in other countries lost the ability to sell that material into China. When the Thai government [took action to stem the influx](https://resource-recycling.com/plastics/2018/06/27/thailand-bans-scrap-plastic-imports/) in June, it also stated that the country would be looking at a long-term policy to permanently ban e-scrap and scrap plastics from import.

Now, that policy appears to be taking shape. The Nation, a Thai news outlet, [reported on a meeting](http://www.nationmultimedia.com/detail/national/30352239) between a handful of regulatory agencies, at which the long-term ban was discussed. According to the report, the agencies passed a resolution that will completely ban scrap plastic imports within two years.

"I have no doubt that the recycling of plastic waste and used electronic parts are profitable businesses at the moment," Natural Resources and Environment Minister General Surasak Kancharana said, according to The Nation. "Some business operators may make a lot of profit from the recycling industry, but what will the country gain from their prosperity when our environment becomes polluted and the people suffer?"

Thai plastics recycling companies are concerned that the two-year period is too short a time period for implementation, according to the report. Their concern suggests that, despite the June prohibition, scrap plastic is still entering the country. Industry representatives have noted that imported scrap plastic is of higher quality than domestic generated, and it is cheaper.

But the environment minister stated that continuing to import plastic loads will prevent developing a domestic scrap plastics collection system and that without action, "the already-severe waste problem in the country could aggravate."

According to Thai customs data, the country imported 757 million pounds of scrap plastic from January through June, substantially higher than the 118 million pounds it imported during the same period in 2017.

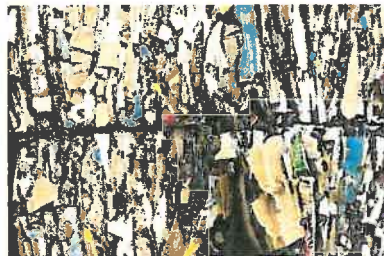
Thailand imported 707,000 short tons of recovered fiber in the first half of 2017, compared with 830,000 short tons during the same period this year.

Taiwan to regulate imports

Like other Southeast Asian nations, Taiwan has seen a large increase in scrap material imports this year. But unlike other countries, Taiwan has had a fairly unregulated scrap import system.

But more government attention may be coming, according to [the Taipei Times](http://www.taipeitimes.com/News/taiwan/archives/2018/08/14/2003698509).

The newspaper reported on a [Taiwanese news conference](https://enews.epa.gov.tw/enews/fact_Newsdetail.asp?InputTime=1070813113749) held by that country's Environmental Protection Agency on Aug. 13, during which the large-scale import influx was discussed.



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Readers weigh in: Is recycling a 'scam'? (<https://resource-recycling.com/recycling/2018/08/21/readers-weigh-in-is-recycling-a-scam/>)

After Resource Recycling highlighted conservative commentators who questioned the foundations of materials recovery, a number of industry

According to Taiwanese trade statistics reviewed by Resource Recycling, Taiwan imported 433 million pounds of scrap plastic from all countries during the first half of 2018, up from 171 million pounds during that period in 2017.

The country brought in 716,000 short tons of recovered fiber from January through June this year, up from 524,000 short tons during the same time last year.

According to the newspaper report, officials at the conference explained that “domestic firms do not need to apply for government approval to import waste plastics and paper, because they can be used as industrial materials, but with the increasing volumes, the quality has degraded, while prices for domestic recycled waste have plunged.”

To remedy the growing problem, the Taiwan Environmental Protection Agency drafted regulations that will restrict imports.

Under the proposed changes, “local firms can only import waste plastics that originate from their own overseas production processes and waste paper that is non-bleached kraft paper, corrugated paper or cardboard,” the agency said, adding that nothing should be mixed with “other waste.” Importers will also need to have proper licensing to bring in material.

Mixed paper would seemingly be banned from import into the country, and scrap plastic imports would be greatly reduced.

The draft regulations have been [posted online in Chinese \(https://gazette.nat.gov.tw/egFront/e_detail.do?metaid=100806\)](https://gazette.nat.gov.tw/egFront/e_detail.do?metaid=100806).

RISI (subscription required) reported (<https://www.risiinfo.com/content-gateway/pulpandpaper/news/taiwanese-authorities-to-regulate-soaring-rfp-imports-following-ban-in-china-172981.html>) on the proposed regulations, quoting Taiwanese producers who feel the development is an overreaction by the government.

Vietnam declines to issue permits

Vietnam has seen a major increase in scrap paper and plastics imports (<https://resource-recycling.com/recycling/2018/05/30/why-vietnam-is-shutting-out-some-materials/>) this year, but last month, the government there announced it would no longer grant new licenses for waste material imports, according to state media.

The move came shortly after a press conference held by customs officials in the country during which they described backlogs at ports and growing volumes of stalled containers of recyclables.

The country appears to be following through on its promise to restrict import permits. RISI reported on Aug. 17 that the Vietnamese government has held off on issuing recovered fiber import permits for a new paper mill.

The 300,000-metric-tons-per-year facility, owned by Cheng Loong, has no choice but to use recovered fiber sourced domestically within Vietnam, RISI wrote.

“The change is a clear sign that the government is strengthening the control of [recovered paper] imports,” RISI wrote.

Meanwhile, the country’s scrap plastics industry is reeling from the import restrictions. A handful of media reports reported on a recent meeting of the Vietnam Plastic Association, where industry representatives expressed major concerns over the recent reduction in import volumes.

Company officials described (<https://e.vnexpress.net/news/business/industries/plastic-industry-hit-hard-by-abrupt-scrap-import-ban-3792774.html>) the shortcomings in domestic collection, which make domestically sourced material harder to use. They also noted (<https://vietnamnews.vn/economy/463861/plastic-industry-fears-bankruptcy-as-scrap-import-ban-bites.html#yZ32L0ALiQ3c7o4r.97>) quality requirements have increased and that imports have not been able to meet the new demands.

According to notes from another recent Vietnamese government press conference (<http://english.vietnamnet.vn/fms/business/206110/scrap-imports-into-vietnam-surge.html>), officials are “also expected to suggest a reduction in the volume of waste imports and a waste import ban in the future.”

Could Oregon mill reopen to take in recovered fiber?

In the U.S., the recycling industry faces a similar predicament, but instead of imported scrap piling up, there’s an overflow of domestically generated material.

Recycling stakeholders continue to look for domestic outlets for collected material. Although some companies have invested in U.S. plastics processing plants (<https://resource-recycling.com/recycling/2018/04/03/policies-drive-chinese-processing-investments-across-the-globe/>), fiber investments have been slower. Several mills have invested to increase the amount of mixed paper they can accept (<https://resource-recycling.com/recycling/2018/05/08/china-chaos-lifts-u-s-fiber-giants-for-now/>), but major new facility investments have not yet emerged.

professionals jabbed back, noting the economic strengths still inherent in recycling.

Amazon settles ‘biodegradable’ claims case (<https://resource-recycling.com/recycling/2018/08/21/am-settles-biodegradable-claims-case/>)

The world’s largest e-commerce company will pay \$1.5 million to settle allegations it broke California law on the marketing of plastics as “biodegradable” or “compostable.”

MRF provider rolls out robots on two continents (<https://resource-recycling.com/recycling/2018/08/21/mrf-provider-rolls-out-robots-on-two-continents/>)

Recycling equipment company Bulk Handling Systems recently announced two facilities – one already opened and another in the works – that will rely heavily on robotics and artificial intelligence.

Global EPR study examines online free riders (<https://resource-recycling.com/recycling/2018/08/21/global-epr-study-examines-online-free-riders/>)

The online purchase of a new laptop may be convenient, but it could also be supporting a company skirting extended producer responsibility (EPR) laws. A recent report examines the growing global issue.

Steve Thompson Memorial Grant awards announced (<https://resource-recycling.com/recycling/2018/08/14/steve-thompson-memorial-grant-awards-announced/>)

At least 60 recycling professionals from around the country will receive grants to attend the 2018 Resource Recycling Conference, a 13 percent increase from last year.

Low OCC prices continue to benefit U.S. mills (<https://resource-recycling.com/recycling/2018/08/14/low-occ-prices-continue-to-benefit-u-s-mills/>)

As more Chinese import restrictions roll in, domestic mills continue to pay even less for recovered fiber. Meanwhile, some are looking at how they can supply Chinese buyers with finished product in the future.

Toronto struggles to find a market for curbside foam (<https://resource-recycling.com/recycling/2018/08/14/toronto-struggles-to-find-a-market-for-curbside-foam/>)

Canada’s largest city conducted a pilot project last year to find a consistent outlet for densified foam polystyrene. The effort reached a clear conclusion, but it wasn’t good news.

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One facility that's received recent attention in the Pacific Northwest is the shuttered WestRock paper mill in Newberg, Ore. The site contains recycled paper machines, and because paper generated in West Coast programs is now in need of a reliable home, various parties have floated the idea of reopening the mill to take in recovered fiber from around the region.

The prospect received wider attention late last month, when it was outlined by U.S. Sen. Ron Wyden, D-Ore., in a letter (<https://resource-recycling.com/resource-recycling/wp-content/uploads/2018/08/Wyden-letter.pdf>) to the Federal Trade Commission and Antitrust Division. Wyden's letter alleged antitrust violations by WestRock, based on reports (<https://pamplinmedia.com/pt/9-news/397727-291618-owner-wont-allow-newberg-paper-mill-to-reopen>) that the company would only sell the facility under the condition its paper processing equipment be destroyed. The company has since stated that condition has been removed (<https://pamplinmedia.com/pt/9-news/398322-292503-chinese-company-also-wants-to-restart-newberg-paper-mill>) and that it is open to any buyer.

Wyden's letter described the Newberg mill as "Oregon's best opportunity to create additional demand for mixed paper and alleviate the glut of recycling building up on the West Coast."

Given the attention, one investment manager on a recent WestRock earnings call asked whether the company would consider restarting the mill to produce recycled pulp. CEO Steve Voorhees said that facility's future remains uncertain. WestRock entered into a contract to sell the site in January, he said, but was unable to close the deal because the buyer couldn't secure financing.

"So we're now assessing the best use of the Newberg facility," Voorhees said. "It's going to take some time for us to determine the next steps, and we don't have an identified time frame to make that decision."

The *Portland Tribune* (<https://portlandtribune.com/pt/9-news/403572-300084-paper-mills-sultors-get-no-reaction-to-purchase-offers>) initially reported on the development. In a statement to the newspaper, WestRock relayed the same message communicated during the earnings call.

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Chinese tariffs on U.S. recyclables go into effect (<https://resource-recycling.com/recycling/2018/08/28/chinese-tariffs-on-u-s-recyclables-go-into-effect/>)

Posted on August 28, 2018

by [Jared Paben and Colin Staub](#)

The U.S. and China have fired their latest salvo in their ongoing trade war, and this time tariffs have been applied to a number of additional U.S. recyclables.

On Aug. 23, each country began imposing new rounds of penalties on \$16 billion worth of each other's goods. Among the hundreds of categories of products, this latest round included China's 25-percent tariff on OCC, recovered paper, scrap plastics and various recovered metals. Chinese authorities [released the list](#) (<https://resource-recycling.com/recycling/2018/08/08/china-to-enact-tariffs-on-occ-and-other-recycled-paper/>) earlier this month.



According to the Institute of Scrap Recycling Industries (ISRI), U.S. aluminum and steel scrap sent to China now has a 50 percent tariff on it. China on Aug. 23 bumped it up from 25 percent to 50 percent. China [first imposed a tariff](#) (<https://resource-recycling.com/recycling/2018/04/03/china-enacts-tariffs-on-us-scrap-aluminum/>) on recovered aluminum in early April.

U.S. export statistics show penalties on aluminum scrap correlate with a decrease in shipments to China, but not a complete stoppage. U.S. aluminum exports, not counting used beverage containers (UBCs), averaged 65,000 short tons per month from January through April. In May, the first full month after the 25 percent tariff had kicked in, they dropped to 44,000 short tons. In June, they were at their lowest volume for the year, 41,000 short tons.

UBC exports were much lower overall – exporters sent 381 short tons to China during the first six months of the year.

The Aug. 23 tariffs also included, for the first time, virgin resin produced in the U.S. The American Chemistry Council (ACC) has been speaking out in opposition to chemicals and plastics tariffs, according to [Plastics News](#) (<http://www.plasticsnews.com/article/20180823/NEWS/180829945/first-resin-tariffs-kick-in-for-us-china-trade-war>).

What could be next

China now has U.S. pulp in its sights, among many other products. It has [drafted a list](#) (<https://resource-recycling.com/recycling/2018/08/07/recycled-paper-pulp-facing-tariff-threat/>) of tariffs on 5,000 product codes, with the duties targeting about \$60 billion in U.S. goods. That list included pulp from virgin and recycled sources.

For chemicals and plastics, that list could be even more painful than the Aug. 23 one, according to the ACC. The \$60 billion list is in response to the Trump Administration's proposed 25 percent tariffs on \$200 billion worth of Chinese goods. This round could go into effect starting in September.

[Bloomberg](#) (<https://www.bloomberquint.com/markets/2018/08/23/u-s-china-trade-talks-yield-no-major-progress-as-tariffs-bite#gs.KvIT3mM>) and [Reuters](#) (<https://www.reuters.com/article/us-usa-trade-china/us-china-escalate-trade-war-impose-more-tariffs-idUSKCN1L809K>) both reported that talks between the countries haven't yielded significant progress, making another round of tariffs more likely.

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Chinese restrictions a 'huge deal' for major hauler (<https://resource-recycling.com/recycling/2018/08/28/chinese-restrictions-a-huge-deal-for-major-hauler/>)

Posted on August 28, 2018

by [Colin Staub](https://resource-recycling.com/recycling/author/colinstaub/) (<https://resource-recycling.com/recycling/author/colinstaub/>)

The head of Waste Connections says the economics of recycling must change. Otherwise, companies' sorting costs will further outpace the revenue they fetch from commodity sales.

During a keynote session at WasteCon 2018 last week in Nashville, Tenn., Ron Mittelstaedt, CEO of Waste Connections, also delved into the impact China's import restrictions have had on his company.

"Financially, it's a huge deal," he said.

Waste Connections is the third largest residential garbage and recycling company in North America.

Of the 2 million tons of U.S. recyclables it collected in 2017, about 72 percent went to China prior to September, when the Impact began to hit the U.S. recycling market in a big way. Now, less than 2 percent does. It's caused a dramatic change for the company's recycling division, as [Resource Recycling has previously reported](https://resource-recycling.com/recycling/2018/07/31/publicly-traded-haulers-report-commodity-price-pains/) (<https://resource-recycling.com/recycling/2018/07/31/publicly-traded-haulers-report-commodity-price-pains/>).

Last year, recycling made up 3.5 percent of the company's revenue, or about \$165 million in commodity sales. This year, commodities will be down by about \$65 million compared with that figure.

"That's all price. That's all profitability," Mittelstaedt said.

During the WasteCon session, Mittelstaedt fielded questions from David Biderman, executive director of the Solid Waste Association of North America (SWANA), which put on the event.

Changes dependent on Chinese actions

Mittelstaedt noted single-stream programs are seeing anywhere from 20 to 30 percent contamination, which is a "huge problem." He declined to opine on whether single-stream programs should revert to dual stream, but he stressed that China's contamination standard of 0.5 percent is not realistic under the current economics of the industry. Getting contamination even down to less than 2 to 3 percent is "incredibly difficult."

For existing facilities, China's changes provide an opportunity to invest in new equipment: Mittelstaedt noted new optical sorters are "dramatically better" than they were five years ago. The superior capabilities will continue to increase as time goes on, he said, including moving into artificial intelligence.

Mittelstaedt offered one upcoming technology company that could enter the industry: Waste Connections has had meetings with mobile camera manufacturer GoPro.

"They're looking at developing an optical sorter for the waste industry because they're so advanced with their lens," he said.

It's up to each company to look at the current challenge as an opportunity and pull the trigger on those investments. And Mittelstaedt said that really relies on what China decides to do.

"If China says, 'Ah, we were joking,' and jumps back in it, this probably gets kicked down the road like most issues," he said. "I don't think that's going to happen."

As [Resource Recycling has reported](https://resource-recycling.com/recycling/2018/07/18/china-moves-to-extend-ban-to-all-materials/) (<https://resource-recycling.com/recycling/2018/07/18/china-moves-to-extend-ban-to-all-materials/>), the Chinese government plans to permanently eliminate scrap material imports in the near future, opting to replace them with domestically generated material.



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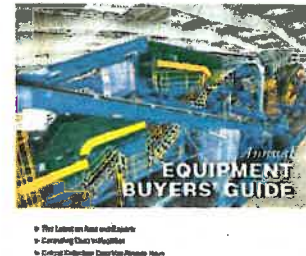
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The Pennsylvania Recycling Markets Center will help direct \$5 million in loans to boost recycling through a partnership with the Closed Loop Fund.

Adjustments at home

Mittelstaedt theorized that domestic markets will inevitably continue to develop given all the current pressures, but that the economic model might have to adjust. The markets will be there for a quality product, which will cost more to produce. If the economics don't adjust – namely through contractual changes – the recycling industry will be left with processing costs that will exceed \$200 to \$300 per ton, Mittelstaedt said, and the end product will recover half that value.

Mittelstaedt mentioned one change he feels municipal programs should make. "Collecting glass is a complete waste," he said. Glass does tremendous damage to vehicles and equipment, and it has no value, he said. Accordingly, Waste Connections has been proactive about communicating to municipal governments its preference that they remove glass from the recycling stream.

The current market strife has taken a long time to come to fruition and it's going to take a long time to fully resolve, according to Mittelstaedt. In the meantime, Waste Connections is sending 85 percent of its material to domestic markets. The remainder is going to international destinations, primarily India, Vietnam and certain parts of Eastern Europe.

Although those markets are there, they have their own difficulties. Like many companies, Waste Connections is seeing backups in countries such as Vietnam. "They're totally saturated," Mittelstaedt said.

Resource Recycling has reported on [numerous import restrictions](https://resource-recycling.com/recycling/2018/08/21/markets-update-more-domestic-talk-as-overseas-options-dwindle/) that have rippled across Southeast Asia.

On the domestic front, Mittelstaedt pointed to several recent paper industry announcements as positive developments for U.S. market development. Six or seven new or restarted mills are expected to come on-line by the end of 2019, he said, and that represents "a dramatic change from where we were six months ago."

A few recent announcements include an idled Virginia newsprint mill that will [restart to produce recycled containerboard](https://resource-recycling.com/recycling/2018/07/31/containerboard-mill-conversion-will-incorporate-mixed-paper/), and a [massive new 100 percent recycled content mill](https://resource-recycling.com/recycling/2018/06/26/major-midwest-mill-to-use-mixed-paper-and-occ/) that's being developed in Wisconsin.

That's due to a number of factors, and Mittelstaedt said the [federal tax legislation](https://resource-recycling.com/recycling/2017/12/19/recycling-industry-takeaways-final-tax-bill/) passed by Congress in December is part of it. But it's largely driven by China's restrictions, which have convinced companies there will be a glut of cheap material supply domestically.

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Quantifying environmental benefits of recycled plastic

Researchers have calculated substantial upsides from making products out of recycled PET, HDPE and PP instead of prime plastics.

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Quantifying environmental benefits of recycled plastic (<https://resource-recycling.com/recycling/2018/08/28/quantifying-environmental-benefits-of-recycled-plastic/>)

Posted on August 28, 2018

by [Jared Paben](https://resource-recycling.com/recycling/author/jared-paben/) (<https://resource-recycling.com/recycling/author/jared-paben/>)

Researchers have calculated substantial upsides from making products out of recycled PET, HDPE and PP instead of prime plastics.

For example, using RPET may generate half the greenhouse gas emissions (GHG) of virgin plastic, according to preliminary data released by Franklin Associates. The reductions may be even greater for recycled polyolefins.

Franklin Associates is conducting the research on behalf of the Association of Plastic Recyclers (APR). APR's president, Steve Alexander, noted that brand owners will be able to reference the data to calculate progress toward their sustainability goals when they use recycled plastic. He called the life cycle inventory research "a critical tool to utilize and market the value of recycled materials."

"We need this information today more than ever if we want to continue to grow and develop the market for recycled plastics," he said.

Sneak peek at the numbers

APR on Aug. 21 held a [webinar](https://plasticsrecycling.org/markets/web-seminars/) (<https://plasticsrecycling.org/markets/web-seminars/>) to unveil preliminary results from the research. Initiated about 18 months ago, the project involves updating and expanding on PET and HDPE research Franklin Associates [released in 2010](https://plasticsrecycling.org/images/pdf/PE_PP_Resins/Life-Cycle-Inventory-Study/Life_Cycle_Inventory.pdf) (https://plasticsrecycling.org/images/pdf/PE_PP_Resins/Life-Cycle-Inventory-Study/Life_Cycle_Inventory.pdf). For the 2018 update, Franklin Associates, a division of Eastern Research Group, also looked at recycled PP for the first time.

The research investigated GHG emissions from "cradle to gate," including collection, transportation, sorting and processing into flake or pellet. Franklin Associates didn't attempt to study impacts associated with manufacturing finished products because of the wide variety of products made from plastics and their varying environmental impacts.

Bev Sauer, senior project manager and life cycle analyst at Franklin Associates, presented during the webinar. She released preliminary findings, noting they're still subject to change after Franklin Associates receives additional information from plastics reclaimers.

She estimated that if a food and drink packaging manufacturer ditches virgin plastic in favor of "solid-stated" RPET pellet, it would cut GHG emissions by about half (solid-stated means the plastic has been decontaminated for food contact and its intrinsic viscosity boosted). "And for HDPE and PP, it's looking like the savings are even greater, in the range of 65 to 70 percent," Sauer said.

The most important part of the analysis was collecting data from plastics reclaimers, Sauer said. Her company gathered detailed information from seven PET reclaimers, five HDPE reclaimers and three PP reclaimers.

The work found that the majority of greenhouse gases generated within the recycling chain come via the reclaimers. For food-contact PET, nearly 90 percent of their gases were associated with reclaimer operations. For HDPE and PP pellet, 70 to 75 percent were generated by the processing steps. PET was higher because of the additional environmental impacts from the decontamination steps, she said.

Where project goes from here

Sauer said her research team is still gathering follow-up information from reclaimers that could shift the numbers. After finalizing the recycled plastic numbers, the recycled flake and pellet numbers will be compared with those for virgin plastics.



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For the 2018 report, Franklin Associates added new categories. The 2010 document covered energy usage, solid waste generation, water consumption, GHG emissions, and other atmospheric and waterborne emissions. The 2018 report will go deeper into how air and water emissions affect acidification, eutrophication (excess nutrients in water that can lead to oxygen depletion), smog and ozone depletion, according to Sauer's presentation.

After completion, the data will be uploaded to the U.S. Department of Energy's [Life Cycle Inventory Database](https://www.nrel.gov/lci/) (<https://www.nrel.gov/lci/>), she said. It will be presented on the "unit process level" so that anyone can adapt the numbers to their particular circumstances to generate more accurate results, she said.

For example, Franklin Associates developed weighted average data sets for each resin based on the amount of material collected at the curb, drop-offs or through container deposit redemption systems. But if a reclaimer that uses only curbside-collected feedstock wanted a number more specific to the company, it could use information from the project to make that assessment.

Sauer also noted her firm is conducting an update to a study of environmental impacts of virgin plastic on behalf of the American Chemistry Council (ACC). That report is expected to be completed near the end of the year.

Kara Pochiro, APR's communications director, said APR members will get an early look at the recycled PET, HDPE and PP report before it's released to the public this fall. The data will also be available at the group's Oct. 9-11 meeting in St. Petersburg, Fla.

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Chinese restrictions a 'huge deal' for major hauler (<https://resource-recycling.com/recycling/2018/08/28/chinese-restrictions-a-huge-deal-for-major-hauler/>)

The head of Waste Connections says the economics of recycling must change. Otherwise, companies' sorting costs will further outpace the revenue they fetch from commodity sales.

Chinese tariffs on U.S. recyclables go into effect (<https://resource-recycling.com/recycling/2018/08/28/chinese-tariffs-on-u-s-recyclables-go-into-effect/>)

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Readers weigh in: Is recycling a 'scam'? (<https://resource-recycling.com/recycling/2018/08/21/readers-weigh-in-is-recycling-a-scam/>)

Posted on August 21, 2018

by Colin Staub (<https://resource-recycling.com/recycling/author/colinstaub/>)

After Resource Recycling highlighted conservative commentators who questioned the foundations of materials recovery, a number of industry professionals jabbed back, noting the economic strengths still inherent in recycling.

In July, a handful of opinion pieces in right-leaning publications [attacked the recycling industry](https://resource-recycling.com/recycling/2018/07/17/conservative-commentators-rip-recycling-scam/) (<https://resource-recycling.com/recycling/2018/07/17/conservative-commentators-rip-recycling-scam/>), suggesting that the current market downturn has illuminated problems inherent to the industry. For instance, a piece in Frontpage Magazine noted that "the recycling scam shipped garbage on dirty ships for dirty industries while pretending that they're clean and green."



Reader responses pointed to deeper nuance in the problems facing the industry, and they generally rejected the idea that recycling as a whole has been a con.

The following are some of the responses we received:

Quality, not quantity, is key to success

"I read with great interest your recent article regarding conservatives who rip recycling as a scam.

"Basically, I am a conservative, and I feel recycling has not been a scam, but instead a major necessary business in the United States providing fiber to the secondary markets and creating tens of thousands of good jobs throughout the country.

"I have personally been involved, working in the industry for over 40 years and at the same time, proud of being my family's third generation in the paper recycling business starting in 1917.

"What has happened in our business is actually not difficult to decipher, as we took our eye off the ball so to speak. Recovered fiber paper mills compete head-on versus virgin paper mill producers both domestically and abroad. You can only make paper out of clean recovered fiber or wood pulp; you can not produce paper from plastic, glass, metal, aluminum, rubber, food waste and plain garbage.

"For years, our industry fought hard to have our products accepted, while at the same time promoting good, clean, quality recovered fiber. Let's be truthful: all was going well until the industry got away from paper recyclers, paper packers and waste haulers who handled and produced good quality fiber. The quality of material was first and foremost.

"Many (but not all) newcomers in our industry got away from the practice or just didn't predict the negative consequences that we are seeing due to sub-par quality. I stated publicly for years that single-stream recycling would cause havoc and be the downfall of our industry in terms of low-grade recycling, starting with mixed paper. For single-stream recycling to work, it had to produce a good, quality-driven item. If not, it would cost the industry and cause us major issues in the future.

"What has happened in China should not come as a surprise, as U.S. paper mills – especially box board mills – pulled back from using single stream back in the 2000s. Mills could not afford to pay 100 percent for the volume but receive 80 cents on the dollar in value. At the same time, the 20 percent that could not be used, ended up costing the mills a second time in landfill disposal.

"What is surprising is the amount of time it took the Chinese to catch up to this. In the end, it has always been about quality with recovered fiber. If clean, the product that we can produce can be a tremendous source of secondary material that can be used all over the world. Again, the emphasis is on a clean product that has industry standards applied to it (ISRI PS standards). It's tough to say what the future holds regarding this issue, but remember this: You are selling a product to a buyer and the buyer has to be able to economically use the product in order to compete with its competition.

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Governments in Southeast Asia are following through on promises to heavily restrict scrap imports. Meanwhile, a U.S.

"This industry needs to get back to promoting quality first and educate the entire public. If we are going to collect and recycle a low-grade item be it single-stream or dual-stream, such as with mixed paper, it will be quality not quantity that will make this entire process work."

*Jonathan Gold
The Gold Group
Recycling Consultants LLC*

Differentiate between sectors

"I read your article, and while there is some validity to the comments of those noted, to infer recycling is a scam is to paint with a broad brush over a very robust industry.

"Metals recycling is and remains a healthy, successful industry that represents the lion's share of recycling weight.

"The issue the industry faces is from consumer generated 'commodities' from MRFs that have to be subsidized from the start to make them viable.

"There is a multibillion dollar industry that marches on, employing hundreds of thousands of workers in the recycling industry, in spite of news referring to their industry as a scam.

"Distinguishing from the two sectors of the market would be prudent in my opinion."

*Mike Hinsey
Granutech*

Government subsidies bear some blame

"Thanks for bringing another viewpoint to the discussion about our current market problems in the recycling industry.

"However, as conservative as I like to think that I am, I would have to argue that the recycling industry is not a 'scam' as some of the writers from your article suggest. ... The problems with our recycling industry today are yet another example of how government subsidies are responsible for the slow decline and eventual collapse of a once-thriving industry by either eliminating or distorting the feedback mechanisms of a free market economy that are necessary to maintain efficient and cost effective programs."

*Stiles Peabody
City of Alexandria*

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senator has singled out a shuttered West Coast paper mill as a possible outlet for recovered fiber.

Amazon settles 'biodegradable' claims case (<https://resource-recycling.com/recycling/2018/08/21/amazon-settles-biodegradable-claims-case/>)

The world's largest e-commerce company will pay \$1.5 million to settle allegations it broke California law on the marketing of plastics as "biodegradable" or "compostable."

MRF provider rolls out robots on two continents (<https://resource-recycling.com/recycling/2018/08/21/mrf-provider-rolls-out-robots-on-two-continents/>)

Recycling equipment company Bulk Handling Systems recently announced two facilities – one already opened and another in the works – that will rely heavily on robotics and artificial intelligence.

Global EPR study examines online free riders (<https://resource-recycling.com/recycling/2018/08/21/global-epr-study-examines-online-free-riders/>)

The online purchase of a new laptop may be convenient, but it could also be supporting a company skirting extended producer responsibility (EPR) laws. A recent report examines the growing global issue.

Steve Thompson Memorial Grant awards announced (<https://resource-recycling.com/recycling/2018/08/14/steve-thompson-memorial-grant-awards-announced/>)

At least 60 recycling professionals from around the country will receive grants to attend the 2018 Resource Recycling Conference, a 13 percent increase from last year.

Low OCC prices continue to benefit U.S. mills (<https://resource-recycling.com/recycling/2018/08/14/low-occ-prices-continue-to-benefit-u-s-mills/>)

As more Chinese import restrictions roll in, domestic mills continue to pay even less for recovered fiber. Meanwhile, some are looking at how they can supply Chinese buyers with finished product in the future.

Toronto struggles to find a market for curbside foam (<https://resource-recycling.com/recycling/2018/08/14/toronto-struggles-to-find-a-market-for-curb-side-foam/>)

Canada's largest city conducted a pilot project last year to find a consistent outlet for densified foam polystyrene. The effort reached a clear conclusion, but it wasn't good news.

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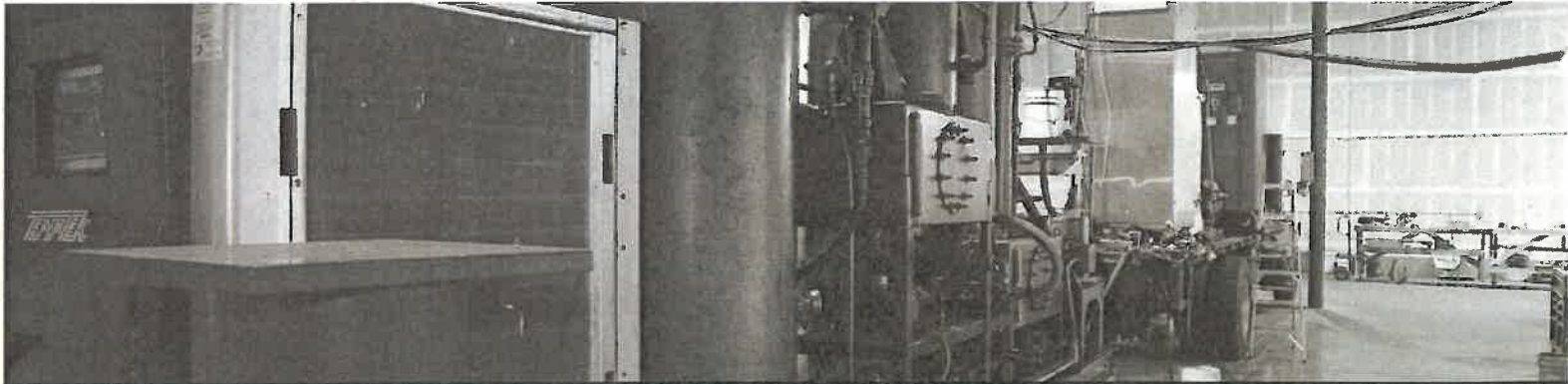
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- WHAT IS WASTE TO ENERGY CONVERSION TECHNOLOGY?
- HOW DOES IT WORK?
- WHAT TYPES OF FEEDSTOCK CAN BE USED?
- WHAT ARE THE OUTPUTS/WHO BUYS THEM?
- MANUFACTURING WARRANTIES?
- 120% LLOYDS OF LONDON PERFORMANCE INSURANCE POLICY
- ZERO COST LEASE TO CA
- NEXT STEPS



SOLUTIONS FOR THE WORLDS MOST COMPLEX TIRE POLLUTION CHALLENGES

SynTech Global, LLC is a world wide distributor of Gold Seal Industries next generation zero emissions waste conversion technology. SynTech Global's aim is to develop and implement innovative waste solutions for the world's most complex tire pollution challenges. The System is the only known zero emissions technology which processes unsorted waste with zero emissions into marketable commodities such as clean energy and water.



Call To Action:

California is faced with the significant challenge of diverting or safely managing more than 44 million reusable and waste tires generated each year. Tire stockpiles pose a potential threat to public health, safety, and the environment.

In order to fulfill The California Department of Resources Recycling and Recovery division (CalRecycle) is mandated to regulate and manage waste tires within the state.

SynTech Global is proposing a collaborative project between CalRecycle and participating counties to recycle 100 tons of waste tires daily or (10,000 automobile or commercial tires) through the zero emissions waste conversion technology for tires that are no longer reusable and converting those tires into clean energy or fuel for resale.

SCRAP TIRE DISPOSAL NUMBERS FOR CALIFORNIA

Scrap Tire Diversion and Disposal Trends (Millions of PTEs)

Year	Number Recycled	Number Otherwise Diverted	Number Disposed	Percent Diverted
2001	14.8	10.1	8.4	74.8%
2002	14.6	13.6	8.4	77.0%
2003	15.8	14.7	10.5	74.4%
2004	16.5	15.5	10.2	75.8%
2005	15.1	17.0	10.2	75.9%
2006	18.3	16.1	11.4	75.1%
2007	20.5	11.3	11.5	73.5%
2008	20.6	11.8	12.3	72.5%
2009	18.4	11.6	11.3	72.6%
2010	17.8	15.6	7.8	81.1%
2011	18.1	17.8	5.0	87.8%
2012	20.2	22.3	3.3	92.9%
2013	16.3	20.4	5.3	87.3%
2014	17.0	20.9	6.3	85.8%
2015	16.3	19.5	8.5	80.9%

Source: CIWMB Report 2002, 1990 through 2002



WASTE CONVERSION TECHNOLOGY OUTPUTS

Shredded tires will be converted into recycled steel, carbon black and a synthetic gas to produce an ultra-low sulfur diesel fuel or clean renewable energy at 7 MWh or 168 MW daily. Outputs will be 3,097,058 gallons of synthetic per year (or 8,823 gallons per operational day), 12,950 tons per year of carbon black and 3,510 tons per year of steel.

One Waste Conversion unit will recycle 100 tons per day (350 days per year) of used automobile, commercial vehicle tires daily. 35,000 tons per year (approximately 3,181,818 used automobile tires)

USED TIRES-100 TONS (10,000 TIRES)/DAY PRODUCES:

10,000 gallons diesel fuel/day or 7 MWh (168 MW) clean electricity/day

1 million gallons pure medical distilled grade water/day*

10 tons of carbon black per day

13 tons of crude steel per year

*1 million gallons of water can be simultaneously filtered through the system into medical grade drinking water if it is fed from an outside source, otherwise the units will capture and distill several thousands of gallons of water collected from the moisture content of the tires.

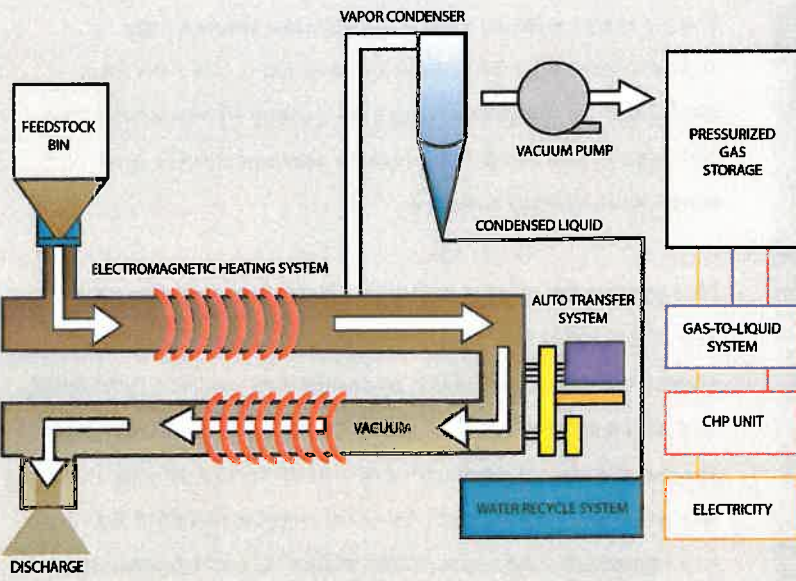
WASTE CONVERSION TECHNOLOGY CONTINUED



The next generation waste conversion technology manufactured by Gold Seal Industries, is the only zero emissions waste processing technology in the world that eliminates the need for landfills, sewage plants, and traditional energy creation.

This advanced system is fully insured, warrantied, and turn-key. It provides the zero emission production needs for public infrastructure such as sanitation, water production, and energy creation. The systems are modular, mobile, and can be placed by helicopter or driven to the site by trailer. The entire system is turn-key and monitored 24-7 by headquarters. The system generates its own sustainable power without the need for a traditional grid.

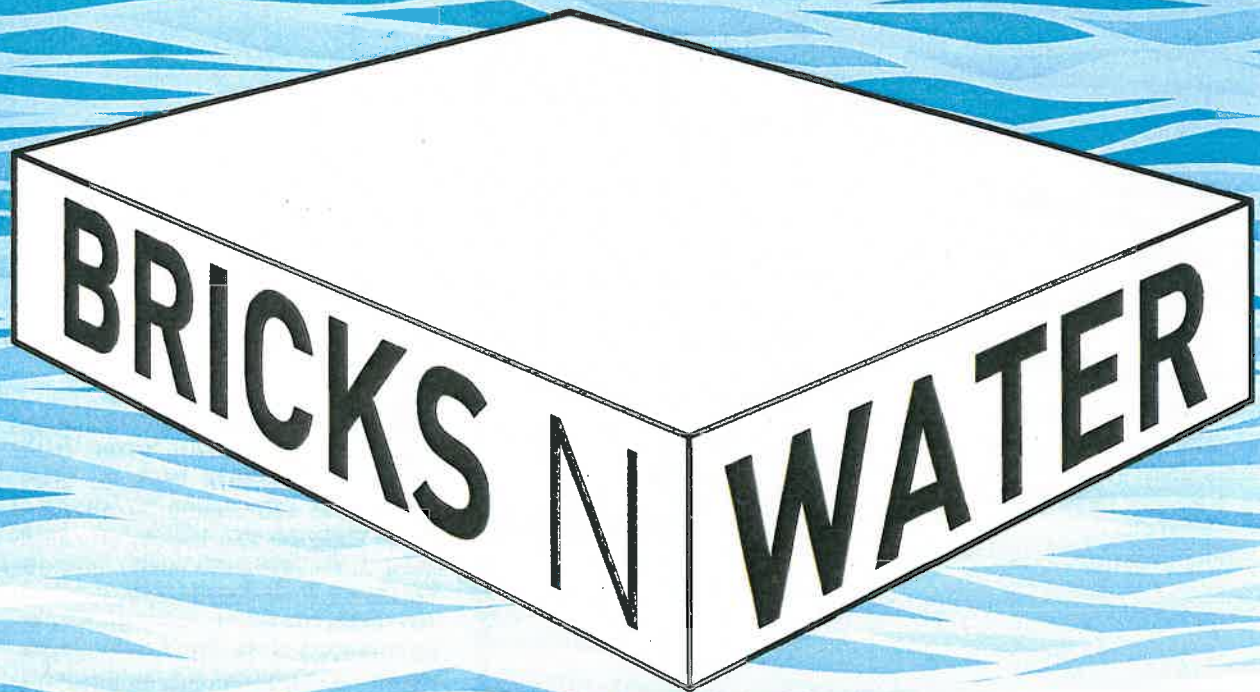
SCHEMATIC





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MOBILE WASTE TO
ENERGY SYSTEM
**COULD CLEAN
THE OCEANS**



Having recently completed final testing of its high temperature vacuum destruction system, Australian firm ADGEX is aiming to set sail on a mission to clean up the oceans and store electricity using its energyBRICK technology.

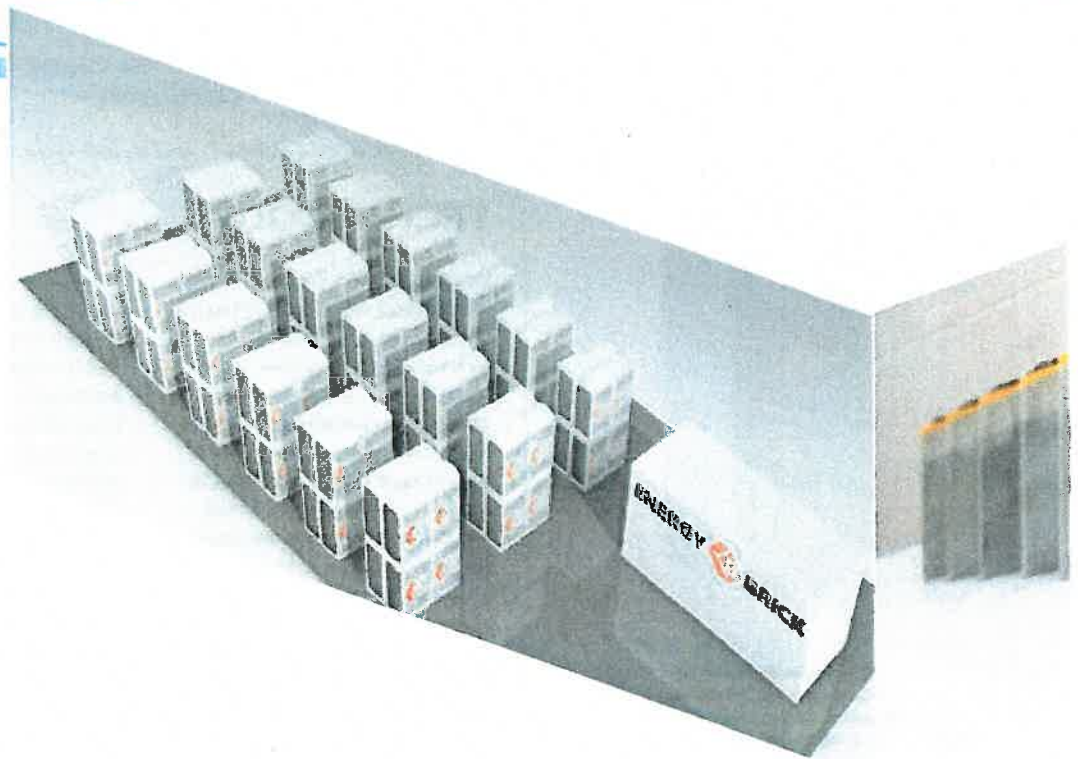
By Ben Messenger

Founded by intellectual property specialist Victor Uzlov in Sydney back in 2012, ADGEX, an abbreviation of Advanced Green Expertise, sees itself as very much being in the disruptive mould. Australia was chosen firstly because of its corporate law, which opened up opportunities for capitalisation of the firm's technologies and the establishment of a multinational business. The second reason was the country's size and isolated location.

In the six years since its inception ADGEX has developed technology in a number of key areas including a mobile waste gasification system and a new battery system for high density energy storage. Dubbed 'greenBLAZE' the firm's waste to energy conversion system is based on high temperature vacuum destruction technology. According to ADGEX, it is able to process all carbon-containing materials, including both solid and liquid wastes, and generate up to 4 MWh of electrical energy from 3 to 5 tonnes of feedstock.

"We can process all types of organic wastes with moisture levels up to 85%," says Vasily Muzanov, project manager at

A modular structure allows the combination of any number of energyBRICK units into a energy storage facility to optimise a power management system and avert power blackouts and outages.



“WE WILL HAVE FLOATING PLATFORMS BASED ON SHIPS. SUCH A SHIP WILL CRUISE AROUND THE OCEAN AND COLLECT THE WASTE AND STORE THE ENERGY.”



Vasily Muzanov
project manager, ADGEX

the firm. “We don’t care about the composition, we can work in any place with any type of materials. From the viewpoint of performance, if the carbon level is low and the moisture content is extremely high, the process time is increased. If you load one tonne of waste with a moisture content below 85%, it will take around an hour, above 85% the performance level would tend to be different.”

In April this year, the company conducted final tests of the system in its production laboratory in the city of Tomsk, Russia. The tests were designed to obtain initial feedstock volume parameters and effective power conversion indices. ADGEX says that the results proved its expectations of the system’s capabilities.

“It’s not about which type of waste we load, it’s about the carbon that’s contained in the waste,” Muzanov adds. “You can load 1 tonne of solid waste with 60% carbon, or a couple of tonnes of other waste where the carbon content is lower.”

“In either case the machine will automatically adjust to the feedstock which is loaded. We have several chambers,” he tells WMW. “The air pressure is increased little by little in each chamber and the temperature by a specific number of degrees, so it will automatically understand

which type of feedstock has been loaded and will adjust automatically. After the feedstock passes all the chambers we have a syngas which will be converted into electric energy or fuel, it depends on what exactly the customer needs.”

According to the project manager, while the most dangerous toxic substances, dioxines and so on, are totally destroyed at a temperature of 1000° C already, the greenBLAZE system operates at around 1600° C.

“Even if there is something left as a residue, we destroy it – all toxic substances and materials,” he says. “The only residue is a type of ash which can be used for construction purposes. We don’t need any waste sorting. We can take any waste or even any liquids, mix it and put it through the processor at the same time.”

Depending on the configuration, the technology is also able to generate liquid fuels, including non-freezing “ARCTIC” diesel and/or synthetic gasoline with an octane rating of 98-100.

MOBILE

One of the key features of the greenBLAZE system is that it’s mobile and fits into a 17-metre truck or a 20-tonne container. “It occupies about 25 square me-



Facilities can be deployed at any location and, if required, disassembled and relocated to meet any energy challenges.

TECHNOLOGY

The energyBRICK's SEVA technology uses modular cells to form the core of the units. The accumulating method is based on a volumetric porous nickel frame to optimise capacity and efficiency. Several SEVA cells are combined into integrated energyBRICK units to reach the required capacity. The units are placed together and interconnected, forming one large energy storage complex. If needed, such complexes can be scaled up to "infinite capacity" by adding additional units. According to ADGEX its energyBRICKs can be charged with high amperage currents in a matter of minutes using

any traditional or alternative power sources. They can also be fully discharged to "zero" and safely stored in such a condition.

Additionally, the system is also claimed to be able to absorb any peak electrical shocks and fluctuations while providing a high level of stability and self-sufficiency. There's also no need to obey the "golden rule" and charge the units from zero to full to extend the battery's life, they can start taking the charge from any level without compromising their 25,000 charge cycle lifetime or reducing the charging efficiency.

tres, so you can fit it into a standard cargo container," says Muzanov. "You can take it from one place to another place, so it's very convenient. You could just take this unit to a landfill and convert all the waste from the landfill into the product you need and put it back on a truck and move it, for example to another landfill. That's the highlight - it doesn't require any external power and it's fully autonomous. It means that in less than 24 hours we can deliver it to a desert or a remote village. We use propane to start it up. One bottle is enough for five or 10 start-ups. It's not a problem to deliver a tank of propane to anywhere in the world."

One of the interesting applications that mobility and automation open up is to mount the units in a specially adapted ship. The vessel would then cruise the ocean cleaning up the now infamous marine debris, much of which is discarded plastics. You might ask what the practicality of harvesting energy from waste on-board would be, but that's where the firm's second technology comes in - the energyBRICK.

A NEW TYPE OF BATTERY

Utilising alkaline SEVA battery cells, a universal accumulating module for en-

ENERGYBRICK STATS

25 000
charge-discharge cycles

**NO
MEMORY
EFFECT**
can be fully depleted

**15-25
YEARS**
lifetime

**50°C
TO +90°C**
Operational temperature range

ergy storage, ADGEX has developed a high-capacity portable system allowing energy to be delivered in the form of a self-contained energyBRICK. At the end of December last year, it initiated commercial testing of an upgraded SEVA cell. According to the firm, the first results were very positive and proved the viability of commercial production.

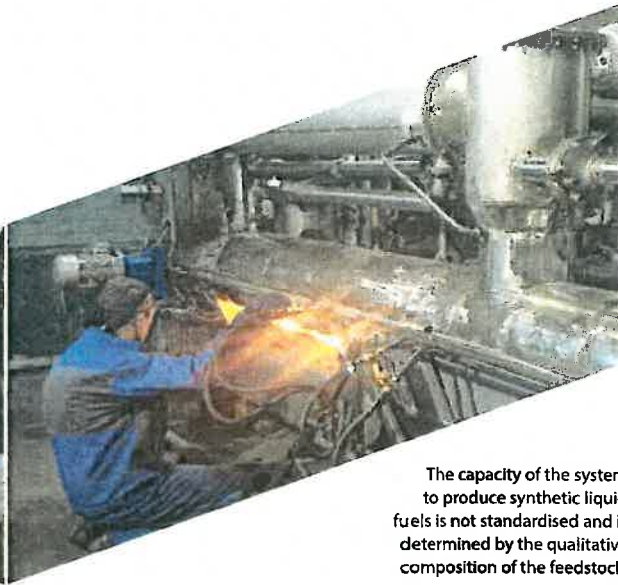
The upgraded SEVA cell can be charged with 500A current instead of just 250A in the previous version. At the same time, discharge current is now 800A under continuous load against 500A before. The energyBRICK itself has a number of units consisting of several accumulating cells. To reach the required capacity, the cells are combined.

Importantly, for use in tandem with an off-grid greenBLAZE setup, the battery technology also offers low levels of self-discharge - no more than 5% per year. This could allow the mobile waste to energy plant to generate energy from any suitable feedstock in any location, even on board a ship, and store that energy for use in remote areas, disaster zones, or as backup power.

"We will be able to process waste directly on the ship. We will eliminate the costly process of transferring the waste



ADGEX's conversion technology is based on high-temperature vacuum destruction to produce syngas and liquid fuels.



The capacity of the system to produce synthetic liquid fuels is not standardised and is determined by the qualitative composition of the feedstock.

from the ocean. The system is quite simple. The waste is captured and converted into energy on the ship, which is stored in the energyBRICK unit, which is delivered to the end customer who could be anywhere. All the processes are carried out on the ship," explains Muzanov. "We will replace empty bricks with full ones. Our technology is based on a zinc material, so transportation is less of a problem. We've conducted negotiations with companies and proved that traditional transportation methods are not a problem. In terms of energy density, we use about 5 kg per 1 kW."

CAPEX and effectively reducing OPEX at the processing stage makes its technology attractive in a number of markets. The next priority for greenBLAZE development is commencement of mass production. The company is also working on the launch of a mass production line for energyBRICK units.

"Basically our business model is a platform for fostering sustainable technologies. For more than six years, we've combined eight lead technologies in different industries. We operate with different partners, but all the technology is owned and developed by us," Muzanov adds.

In the longer term he sees big opportunities for the company to bring its technologies together.

"The concept of our company is to combine technologies to develop sustainable cities. We have many technologies. They can and they will be combined together to form fully sustainable cities including green transportation. We can use greenBLAZE to power that transportation. Step by step we're going to commercialise and roll out other technology. Finally, we will be able to provide turnkey infrastructure," he concludes.

That's a big ambition from a small but growing company. Stay tuned to WMW to find out how the next of those steps goes as the demonstration in Brisbane gets underway. —

GREENBLAZE TIMELINE

- 2010 Production of pilot prototype
- 2011 Testing and proving the technology
- 2013 Upgrade of the technology following 2 years
- 2015 Adjusting the technology with recovery of pre-planned light fractions of carbonaceous products
- 2016 Introduction of greenBLAZE processor to Australian government
- 2017 Commencement of production of commercial greenBLAZE-200 processors to be delivered to Brisbane, Australia

NEXT STEPS

In its home country of Australia, ADGEX is participating in a government program run by the State of Queensland.

"What we're going to do is bring a couple of units to Brisbane where we're going to do a demonstration to the public for a month," says Muzanov. "After that we're going to start a campaign as an international operator. We're going to make greenBLAZE an end user product and have a franchise model in Australia. At the same time, our global model is to start cleaning up the ocean. In September, we're going to launch the social project which incorporates greenBLAZE technology and energyBRICK technology."

ADGEX believes that cutting the cost of a waste treatment system, lowering



WINNING THE WASTE TO ENERGY TIME TRIAL

Wherever you live, we all know that getting a major piece of waste infrastructure off the drawing board and into the real world is not easy.

For Amey's Allerton Waste Recovery Park in the north of England the journey has been a long one, but for the company, good things come to those who wait...

By Ben Messenger



Way back when dinosaurs ruled the world, before the 'crunch' really started to bite, in September 2007 a contract notice was published in the Official Journal of the European Union (OJEU) inviting companies to tender for a long-term contract to manage the final treatment of York and North Yorkshire's residual household waste.

Previously the councils had worked together to prepare an outline business case which was submitted to the Department of Environment, Food and Rural Affairs (Defra). However, this document reflected the waste management position at that time and was the basis for the suc-

cessful application for £65 million Private Finance Initiative (PFI) credits.

Once the solutions had been evaluated, two companies were taken forward. Amey was then selected as the councils' preferred bidder for the contract. The councils worked with Defra and the Waste Infrastructure Delivery Programme to progress each stage of the project. Following the outcome of the Comprehensive Spending Review in October 2010, the councils received confirmation that the project had retained the provisional allocation of credit support for the project. In December 2010, members of both councils agreed to award a contract for the long-term management of waste to Amey. Fast forward to October 2012, North



Following a rollercoaster ride through planning and financing, Amey's Allerton Waste Recovery Park is now up and running and will treat 50% of the household waste generated in the area by 2020.

Yorkshire County Council's planning and regulatory functions committee considered the report of the corporate director for business and environmental services on Amey's planning application for Allerton Waste Recovery Park and agreed with the report's recommendation to approve the application.

They also agreed with the report's recommendation that the Secretary of State for Communities and Local Government should be consulted on the application and the committee's decision. The Secretary of State decided not to hold a public enquiry and the planning decision notice was issued in February 2013.

Then, an application was made for a judicial review of the planning decision. This was refused by the High Court in July 2013. The High Court's decision was appealed and at a hearing at the Court of Appeal, the appeal was also refused.

VINCI Environment UK, a joint venture of VINCI Environment and Taylor Woodrow, worked alongside a number of contractors to design and build the integrated waste management facility at a landfill and quarry site in Allerton. It became fully operational in spring 2018 and was designed to process up to 320,000 tonnes of waste per year using mechanical biological sorting. The majority of

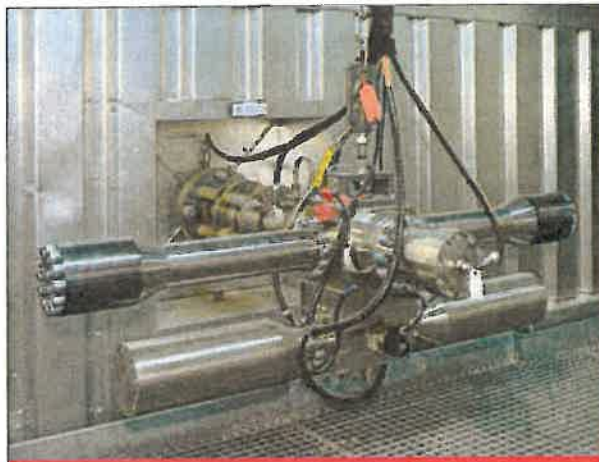
the waste was to be treated in two energy from waste streams, thermal treatment and anaerobic digestion.

Residual household waste received is first mechanically sorted. Some of the waste is then anaerobically digested to recover energy in the form of biogas. The remainder, about 320,000 tonnes per year, is incinerated in two lines, each with a capacity of 20 tonnes per hour, to generate 25 MW of electricity for export to the grid.

Prior to the commissioning of the plant, 55% of the 520,000 tonnes of waste produced each year by the 760,000 inhabitants of the County of North Yorkshire and the City of York was sent to landfill. The locally set objective is to reduce the volume of waste going to landfill by 90% and to increase the recycling rate using sustainable waste treatment processes. Making a significant contribution towards achieving this objective, the Allerton Waste Recovery Park will treat 50% of the household waste generated in the area by 2020.

The planning agreement for Allerton Park was signed in February 2013 and included proposals for a landscape and cultural heritage fund. They work with Two Ridings Community Foundation to deliver this fund.

The fund was designed to assist with projects which enhance the landscape,



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Areas of application: EfW, biomass, sewage sludge, hazardous waste, coal, filters, cement kilns



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WASTE TO ENERGY

cultural heritage and biodiversity of the designated area of benefit around the facility. It also supports projects which mitigate the visual effects of the site within that same area.

There are three schemes available:

- Small grants between £100 and £1000
- Medium grants between £1001 and £10,000
- Large grants between £10,001 and £50,000

POWER PURCHASE AGREEMENT

In 2015, Amey secured a Power Purchase Agreement with GDF SUEZ Energy UK for the output from the plant. Under the agreement, GDF SUEZ buys all of the electricity generated, up to 208 GWh annually.

Under the PPA, GDF SUEZ Energy UK will buy the output from Allerton Waste Recovery Park at an index-linked rate, providing Amey with a market-reflective price for its energy. To provide an assured return on investment for the project's funders, the PPA also incorporates a floor price, guaranteeing a minimum rate should market prices fall steeply.

MONEY MONEY MONEY

In February 2013, Defra withdrew the £65 million PFI credits allocation. On the face of it, it was a fatal blow, but with

"THE FACILITY IS A STEP FORWARD IN THE WAY THE COUNTY TREATS ITS WASTE, TURNING IT INTO A RESOURCE."



County Councillor Andrew Lee
Executive Member for Waste
Management for North Yorkshire
County Council

some silky footwork the council worked with Amey to finalise funding for the project and financial closure took place on 30 October 2014. In July 2013, the company was granted an environmental permit from the Environment Agency and the judicial review period expired without challenge in October 2013.

By 2014, the European Investment Bank had agreed to provide £150 million for the project to increase recycling and diversion from landfill, reduce carbon emissions and generate electricity.

"The European Investment Bank is committed to supporting investment in waste processing that reduces carbon emissions, uses waste to generate green electricity and lowers long-term costs for households," explains Jonathan Taylor, European Investment Bank vice president.

The agreement to finance the project marked the first time that the EIB invested alongside the Green Investment Bank, which provided £33.1 million for the project. Additional financing was also being provided by Nord LB, Sumitomo Mitsui Banking Corporation, Siemens Bank and KfW-IPEX.

LEGACY

The newly commissioned Park can deal with up to 1400 tonnes of waste per day.



Paço Hevja
technical director, Amey PLC United
Kingdom Environmental Services

THE RATIONALE

"We opted for a combination of treatment technologies to allow us an opportunity to improve the recycling performance of both councils while at the same time controlling the quality and calorific value of the residual fraction delivered to the EfW facility. All residual household waste is processed mechanically to separate out the recyclable materials (different metal and polymer fractions) for reprocessing into new products. Organic materials, such as food and garden waste, are also separated in the mechanical process and diverted into the second stage; an anaerobic digester where they are used to generate a methane-rich biogas which is used as fuel in two large gas engines to generate around 1 MWe of green energy.

The residue from digestion along with non-recyclables and materials with no current viable recycling market end up in the EfW plant. Here it is burned above 850°C and we recover the energy through a steam cycle to power a turbine to generate 218 GWh of electricity per year. Emissions are treated and controlled by a comprehensive filter system to comply with environmental permit limits, while the combustion ash – around 70,000 tonnes a year – gets turned into construction-related materials for use on highways and infrastructure projects. At its heart, Allerton is a pragmatic value for money solution allowing both councils to reduce expenditure on the disposal of waste whilst having a positive impact on the environment and climate change by drastically reducing the carbon footprint of waste management in North Yorkshire." —

FACTS

2024

Figures released by the Environment Agency in 2016 showed that landfill capacity in England was decreasing and estimated that the amount of non-hazardous landfill would run out by 2024.

74,000 TONNES

Ash which will be turned into construction-related materials for use on highways and infrastructure projects.

218GWH

Electricity generated each year, some of this is used to power the facility, but it has already started exporting electricity above the designed 24MW.

First, the waste passes through mechanical treatment where machinery separates the recyclable, food and biodegradable material. Recyclates can be reprocessed into new products while biodegradable materials pass to the anaerobic digester for conversion into electricity.

The remaining waste is burned in the energy from waste facility to create electricity. Comprehensive filter systems capture and control emissions and even the resulting ash is suitable for re-processing once metals have been removed for recycling.

Every year, the EfW plant will generate around 74,000 tonnes of ash, which will be turned into construction-related materials for use on highways and infrastructure projects.

Anaerobic digestion and EfW treatment will together generate around 218 GWh electricity per year. Some of this is used to power the facility itself but the

plant will also export enough electricity to support a town up to one and a half times the size of Harrogate. Early signs suggest the turbine is working efficiently and has already started exporting electricity above the designed 24MW per hour into the national grid.

Acting Leader and Executive Member for the Environment at City of York Council, Councillor Andrew Waller said: "We will continue to support our residents to reduce the waste we produce and recycle more, but this treatment plant is a very effective and positive way to minimise the impact of non-recyclable waste. During the commissioning and testing, we've seen a dramatic reduction in the amount of waste going to landfill and a benefit that some material going there is being recycled and reused. It saves money on expensive landfill taxes and even produces energy which we can sell back into the national grid." —

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THREE-STAGE FAST PYROLYSIS PACKAGE

Derived from the Greek terms 'pyro' and 'lysis', fire and decomposition, the process of pyrolysis has been used by mankind for millennia.

In its simplest form it allows the production of charcoal for cooking. Now, Bluefield Renewable believes that it's on the verge of rolling out a modular, scalable and transportable system commercially.

By Ben Messenger

Close to the US/Mexico border in Brawley, California, Singapore-based Bluefield Renewable Energy Pte Ltd (BRE) is operating a demonstration facility showcasing its Fast Pyrolysis system. To realise its vision of decentralised waste management, the company, which was founded in 2015, has brought together a number of key technologies, as well as diverse partners from defence contractors to farmers.

In essence, the system comprises three stages: pre-processing, fast pyrolysis, and energy generation. According to the firm, its system offers attractive returns without the need for subsidies or incentives. Revenue is generated from tipping fees as well as the sale of gas, electricity and char: a co-product of the process.

"There are several key technologies, the main one is very high temperature pyrolysis at up to 1000°C whereas conventional pyrolysis is around 600°C or so. The main reason we use high temperatures is to optimise the production of syngas rather than bio-oil. In our experience the bio-oil is not pure and needs to undergo further refining which involves additional processes and may not be so cost effective given the current oil market situation," Patrick Khaw, director of business development at BRE tells WMW.

At its demonstration plant, BRE is engaging with commercial and industrial customers in the testing of their various waste streams as the initial phase of development towards permanent installations at locations where waste is generated. To

secure grid connections and environmental permits, the firm has partnered with an influential farm owner in the area.

"We have the fast pyrolysis and the pre-treatment systems operating. Of course, we are looking at farm waste there, but at the same time there are other waste streams such as MSW from a nearby county and sawdust from a local factory," explains Khaw. "The main part of the system is what we call the 'cooker' – it's oxygen free, so we don't burn anything. What comes out of the pyrolysis process is around 85% syngas, which we feed into our onboard generators. The remaining 15% is char. Depending on whether the feedstock is purely organic, it can be easily certified as a soil amendment. Otherwise it can potentially be used in road construction."

The system is modular and scalable, and is installed in 20ft containers for easy transportation. The basic building block is a 3-MW unit which requires around 110 tonnes per day of feedstock. The 3 MW is net exportable power. For every 1 MW generated, about 200-300 kW is needed for internal consumption to maintain heat in the system. But it's not only energy that BRE sees as the key to success, but also its ability to decentralise waste management. Furthermore, BRE's system only takes a year to be implemented, vis-à-vis a minimum of two and a half years for other waste-to-energy systems.

"We are not competing with large-scale waste incineration technologies. By talking to prospective customers, we've

found that the sweet spot for us is about 300 to 500 tonnes per day. In some countries there is no centralised waste management, or it is very expensive to transport waste, so they would rather process the waste where it is generated and at the same time generate electricity from it," says Khaw.

PRE-PROCESSING

In order to enable the fast pyrolysis process and optimise syngas production, BRE utilises its Vortex: a high-speed rotating impact breaking device. It comprises a series of vertically mounted rotating gyroscopic blades which homogenises the material.

"It's not a shredder," asserts Khaw. "It's a little bit like a blender you would use at home to blend fruit juices. It's a large barrel with a cyclone generator in it with several layers of blades of different thicknesses made from high-quality steel. It chops the waste into small parts and because the blades are spinning at very high speed it removes a lot of moisture – the moisture content is drastically reduced."

"In the initial phase the systems will be built in the US for quality assurance, but subsequently we intend to manufacture in the countries we are deploying them in. Right now we are mainly looking at North America and Asia as our main markets."

For a feedstock containing 40% moisture content, the Vortex removes around 50% before it is ready for processing in BRE's Thermal Reactor, which is optimised for about 20% moisture content.

When it comes to medical waste, the company carries out additional pre-processing including ultra violet disinfection.

THE CHAR CHAR CHAR

While there are numerous proven technologies for recovering energy from non-recyclable wastes, or processing organic materials, one of the key benefits of fast pyrolysis is that it allows the utilisation of all carbon-containing materials, both organic and inorganic. It also offers the potential for long-term carbon sequestration.

During the thermochemical conversion process, a high concentration of cer-

FACTS

3

MW

Output from the basic unit

110

TONNES

Feedstock required each day

200-300

KW

Parasitic energy requirement

tain types of carbon compounds form a stable biochar. These compounds create a physical structure - a matrix - well-suited to enhance soil while sequestering carbon for a long period of time. According to BRE, biochar is also showing promise in cleaning up polluted water, while soil scientists are exploring its use in agriculture and remediating pollution.

As another feather in the biochar cap, BRE highlights a recent report by Transparency Market Research which forecast the global market to grow with approx. 15.27% CAGR from 2017 to 2025 to reach \$3.14 billion. Biochar used as soil amendment improves the health and quality of soil and is a high priority in forestry, agriculture, and gardening. Biochar is not only economical, it is also eco-friendly. It improves soil fertility as well as increasing nutrient and water retention and reducing soil acidity.

The system also comes with a microgrid built in, so it can be deployed off-grid in a resort or a village and provides locally produced power from locally sourced wastes.

EMISSIONS & MAINTENANCE

When it comes to recovering energy from wastes, the subject of emissions is always of key importance. In the US, BRE has now secured the necessary permits to lo-



BRE's system also incorporates a microgrid so it can be deployed off-grid in a resort or a village and provide locally produced energy from wastes.

WASTE TO ENERGY



BRE is engaging with customers to test various waste streams as it plans permanent installations at locations where waste is generated.

cate a facility near or within city perimeter limits.

“Because the synthesis gas goes directly into the generators, the only emissions we have to manage are those coming from the generator,” explains Khaw. “We’ve engaged a third party to test those and they fulfil the US EPA Tier 2 Pollution Standards and we are moving towards Tier 4.”

He adds that when it comes to maintenance and reliability, the system has inbuilt redundancy with a typical 3 MW plant featuring three 1 MW gensets. If one is down for minor maintenance, the other two can carry on. The fast pyrolysis system itself is designed to operate on a 24-hour basis and BRE is looking at around 93% uptime over the course of a year.

For the pre-processing system, downtime should not be an issue as it can process more material than required and feedstock can thus be stockpiled in a silo.

BRIGHT FUTURE

Khaw is ambitious for the young company and aims to deploy systems in countries across North America and Asia using financial models based on build-own-and-operate (BOO) and build-own-and-transfer (BOT).

BRE is currently working on project implementation at customer sites in different countries.

“Thus far we have angel investors who come in because they believe in what we are doing,” says Khaw. But as BRE plans its disruptive rise from a start-up to a trusted industry player, it is working very hard to ensure successful deployment of its modular, scalable and transportable system in a commercial environment for its pioneer customers.

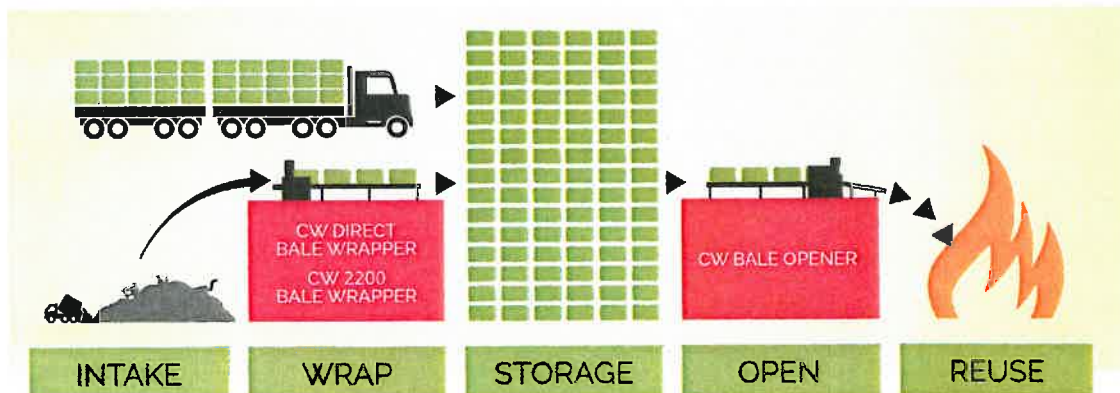
If it gets things right, expect to be hearing much more from the company in the coming years. —

CROSSWRAPPING IN WTE PLANT THE KEY TO EFFICIENT FUEL HANDLING

CW machinery makes a substantial difference in fuel intake, handling and storage.

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team ever since. The relationship has provided us with access to industry-leading facilities, but also to the solutions and ideas of world experts in heat pipes," he continues.

In common with other white goods such as washing machines, the HERU requires a water supply, a standard 13-amp electrical power supply and a sewer pipe connection. It is also synchronised to either a gas or oil boiler to become a hybrid water heating system - meaning it can run via HERU or revert back to oil or gas as and when needed.

To use the system, the householder places items in the chamber where they undergo three process stages:

STAGE 1: Drying. The chamber heats up to around 100°C, which dries out the material (a typical mix usually contains 47% moisture) by boiling off any moisture as steam. This steam is packed with energy, so it passes over heat exchangers which enable this heat to be transferred

FACTS



48 LITRES

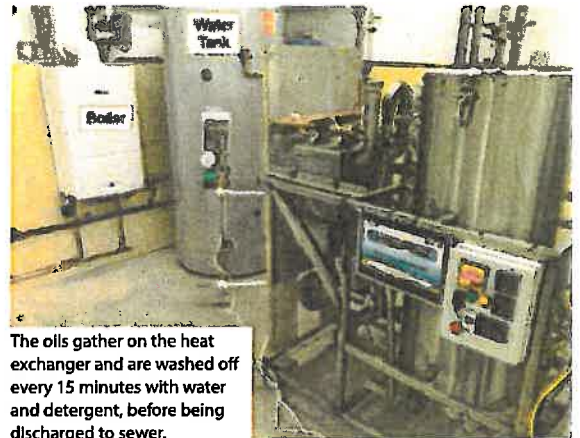
Water used per cycle compared to a washing machine which uses around 50 litres per cycle.

1-3%

Ash remaining to be flushed down the sewer at the end of the cycle.

CHAR

This accounts for 70% to 80% of the inputs. This is the main fuel source of the HERU.



The oils gather on the heat exchanger and are washed off every 15 minutes with water and detergent, before being discharged to sewer.

to water making it hot for your home. The condensed steam is then flushed to the sewer.

STAGE 2: Pyrolysis. The dried matter is then heated up to 300°C, decomposing it in the absence of oxygen. This releases an oily vapour containing oil and syngas. The tiny amount of oil condenses on the heat exchanger and is washed off every 15 minutes with water jets and detergent and flushed to sewer. As it operates under low temperatures, the process doesn't

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Syngas accounts for 10% to 20% of the initial weight of the inputs and is released mostly during the pyrolysis stage, but also during combustion.



break the hydrocarbons found in the oil, making the tiny amount of oil produced safe to flush to the sewer. The small amount of syngas is then cleaned using a patented water screen filtration system, compressed and stored ready for combustion in the home boiler as and when required. An inert, valuable, high-calorific char glowing at around 300°C remains in the chamber.

STAGE 3: Combustion. Air is introduced to initiate combustion of the char creating an exothermic reaction that releases the heat energy stored in this mate-

"THE ON-SITE TEST FACILITY WILL GO A LONG WAY IN HELPING US EXPAND HERU'S SCOPE AND POTENTIAL."



Nik Spencer
Mission Resources' CEO and co-inventor of the HERU concept

rial. The exhaust gases pass over the heat exchanger to recover this energy before being cleaned via the water screen filtration system and then compressed and stored ready for combustion in the boiler as and when required. A small amount of ash, accounting for about 1-3% of the original material mass, is left over at the end of the process; it is also flushed to the sewer.

HOW IT PRODUCES ENERGY

The heat collected by the heat exchanger, mostly during stages 1 and 3 (which release the most energy via steam or syngas) is used to pre-heat water for the boiler, storing it in a tank, which the boiler uses for domestic use in the home. Cleaned, compressed syngas, generated during stage 2, is used as a gas fuel in the normal home boiler, via the air inlet valve, meaning the boiler needs less natural gas or oil to operate, making it a fully hybrid boiler.

Will it take off? Maybe not as quickly as Marty McFly's Delorean, but he did have time travel on his side. We'll just have to wait and see. —

CROSS WRAP MACHINERY IN WASTE TO ENERGY INDUSTRY

Transforming waste into energy offers a competitive solution compared to land-filling. However, environmentally safe and cost-effective logistics for the transportation and temporary storage of waste derived fuels needs to be considered.

Cross Wrap® has delivered over 400 bale wrappers to more than 50 countries to wrap the RDF and SRF bales. CW Bale Wrappers can be used in conjunction with all the balers, bale dimensions and waste materials.

Countries including the UK, Italy and Norway are shipping out RDF and SRF materials to be utilised in WtE plants or cement kilns in Germany, Netherlands and Sweden. More than 100 CW Bale Wrapping lines are wrapping RDF and SRF bales for demanding export purposes in the UK alone.

Cross Wrapped bales are an environmentally safe, economical way of packaging RDF and SRF for export by truck, ship or train. Additionally, the export package needs to withstand being handled multiple

times, which is guaranteed by the unique cross-wrapping method and by using good quality film.

With more than 20 years experience of packing waste-based materials, Cross Wrap patented the CW Direct Bale Wrapper years ago, but has continued to innovate. The CW Direct Bale Wrapper automatically wraps the bales directly from a 2-ram baler's chamber. CW Direct Wrapping saves investment in tying and consumable costs as no ties are needed. Direct Wrapping is a compact solution saving space at the site while reducing litter and labour cost.

CW Bale Wrappers and Bale Openers play an important role when waste materials are not exported but utilised in local WtE plants. When an energy recovery plant needs to supply a steady production of district heating, steam, cooling or electricity, it needs to optimise its fuel handling as well.

Baling and CW wrapping increases the readiness of WtE facilities for fluctuations in the quantity of waste being received. When there is more material coming in than need-



Cross-wrapped bales can be stored tightly and clean outside without any additional shelter.

ed it can be baled and stored. This is an environmentally safe and economical means of storage because wrapping removes the risk of emission or littering from the bales.

Wrapping allows waste intake during periods of low energy demand or maintenance breaks. When needed, the CW Bale Opener opens the bales automatically and the material can be fed to production. The CW Bale Opener also opens round bales. Wrapping film and the ties can also be separated from the material.

Cross Wrap machinery provides a steady fuel flow and creates flexibility for fuel handling.

www.crosswrap.com

25 tonnes of FOGO can be trucked to a composting facility before it emits the same emissions as if it were landfilled with gas capture.



AUSTRALIA

Composting organic wastes massively reduces greenhouse gas emissions compared to landfill. In Australia, the FOGO service seeks to take advantage of this, but questions have been raised about the carbon footprint of transporting organics to far off facilities. Mike Ritchie does the maths and the results are impressive.

Last summer (winter in Australia), MRA Consulting's Virginia Brunton outlined the organic waste situation in New South Wales, Australia, and the growing challenge of how to manage it. Tonnages are growing by a compound annual growth rate of 6.2%, six times faster than population growth, and 2.5 times faster than GDP growth. Landfill costs are increasing due to landfill levies and landfill scarcity.

Whilst the country is doing well at diverting waste from landfill (the latest national data puts diversion at 58%), particular waste streams that are high volume and less expensive to address need to be tackled.

The options? Transferring residual organics into the Garden Organics (GO) service creates a service known as FOGO (Food Organics and Garden Organics). For most councils that already have a GO service, this is a straightforward step in terms of service delivery.

"Both work and are appropriate for different situations," says Brunton, but adds that while the FOGO service consistently produces a higher value organic product, it has been generally overlooked in favour of AWT.

Attending a recent meeting with Local Government Mayors and CEO's, Mike Ritchie heard a claim that transporting organics by truck to a distant compost

facility (in this case 150 km away) would emit more greenhouse gases than landfilling it locally:

"Thinking that the carbon forcing factor of methane from landfill (25 times CO₂) would render that claim incorrect, I thought I should go back and check the maths. The answer was so startling I wrote this article.

In short, a truck filled with 25 tonnes of FOGO can be driven 13,100 km to a composting facility before it emits the same amount of greenhouse gases as that same truckload put in a landfill with 45% gas capture (typical of whole-of-life gas capture).

Or put another way, you could circumnavigate Australia (14,500 km) with FOGO compared to a standard landfill with gas capture.

If the landfill had no gas capture, you could drive that truck 20,900 km before the CO₂-e emissions from the truck were equal to the landfill's emissions. To put that in context, you could drive from Sydney to Perth and back 5 times before you generated the same amount of emissions. How stark is that?

Organics belong in our soils, not in landfill, and FOGO services are the best ways to recover organics from the municipal waste stream. FOGO needs to become the standard waste service for all Australian households." —

"YOU COULD CIRCUM-NAVIGATE AUSTRALIA WITH FOGO COMPARED TO A STANDARD LANDFILL WITH GAS CAPTURE."



Mike Ritchie, one of Australia's leading waste policy advisors and managing director at MRA Consulting Group



Students celebrating their new standardized labels on their bins at Las Virgenes Unified School District – Calabasas, CA



LET'S MAKE IT EASY
FOR PEOPLE TO
RECYCLE RIGHT,
WHEREVER THEY
MIGHT BE!

A proposal for RCRC to join the
standardized labels for bins
movement.





PUBLIC CONFUSION AT THE BIN SIMPLY DOES NOT WORK.



Recycling when we're away from home is confusing. Inconsistent labels on recycling bins in public areas, in schools, and in workplaces, causes public confusion, apathy and skepticism about recycling which leads to costly contamination, high costs and injuries during processing. And all of that, causes a lack of demand for the materials.



Confusing and inconsistent labels on residential carts also contribute to the public's mistakes and apathy at the bin which result in contamination.



The reactions to the contamination issue, such as residential cart inspections and tagging, is expensive and dangerous, and it does not solve the systemic issue.

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andrea@recycleacrossamerica.org



THE ROOT CAUSE OF THE ISSUE: Public confusion and apathy at the bin is the root cause of the contamination.





FIXING THE ISSUE AT THE SOURCE: In order for recycling and closed-loop manufacturing to be able to thrive, people everywhere need to be able to recycle *right* ... easily.

Analogy: Regardless of different speed limits and road names, driving a car from coast to coast is safe and easy to do, due to *standardized* signage. Recycling will truly thrive *'if'* it's easy for people to recycle properly wherever they are. This is precisely why we created the nonprofit society-wide *standardized labeling solution for recycling bins* and the celebrity-led "Let's recycle right!" public service announcement and education campaign.



To date, there are currently more than nine million standardized labels in use throughout the U.S. and over two million standardized labels displayed on recycling bins and recycling dumpsters in California schools, businesses, hospitals, cities, public spaces, and parks. There are standardized labels created for all types of sorting systems and for all types of bins and lids.

The "Let's recycle right!" campaign is now the largest recycling campaign in U.S. history. The campaign provides simple universal tips to help people recycle properly, and it introduces the standardized labels for recycling bins, which make it possible for people to recycle right. The campaign is available for all municipalities and government agencies to use at no cost when they display the standardized labels on their bins.



RECYCLING AT HOME: The *detailed* standardized labels for residential carts make it easy to recycle right.



- The society-wide standardized labels adhere to and comply with California SB 1383.
- Using the MRF specifications and the county's input, Recycle Across America (RAA) will design the standardized labels *specifically* for each county's residential recycling program and carts.
- The standardized label on the top of the residential cart shows the images of the most common items and a detailed list of what can and cannot go in the recycling bin.
- The labels can be created with English & Spanish.
- The labels can be printed on a heavy-duty, high-tack adhesive material and laminated to help withstand severe weather. Or the standardized labels can be heat molded into the plastic of the cart as an alternative.
- The labels can include a logo, a recycling website and contact information.



RECYCLING AWAY FROM HOME: The society-wide standardized labels for public areas, businesses, schools, parks, airports, sports stadiums, etc. are produced for all sorting needs and all bin/lid types. The design mirrors the in-home recycling labels.



- **The society-wide standardized labels adhere to and comply with California SB 1383.**
- The standardized labels in public spaces and at schools and work spaces are more simplistic than the residential labels because people generally don't have as much complex packaging in public as they do at home. However the standardized labels on public area bins, show the same standardized elements in generally the same format as the more detailed standardized labels that they are seeing on their residential recycling carts and bins.
- The labels can include the RCRC logo or the county's logo, recycling website and contact information.
- The standardized labels for public bins can be created with English & Spanish, however we have found that the photocentric labels are highly effective.

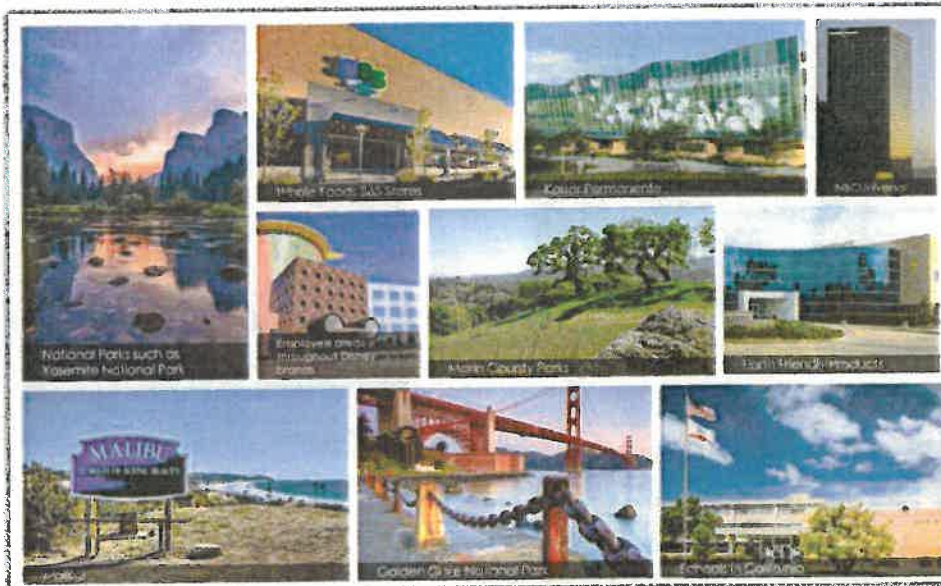


DROP-OFF RECYCLING CENTERS AND DUMPSTERS: Society-wide standardized labels are also created for community drop-off centers and dumpsters.





CALIFORNIA LEADERS ALREADY ON BOARD: Here are just a few examples of some of the great partners that are already starting to implement the standardized labels on their bins in California:



- Kaiser Permanente
- Yosemite NPS
- Kings County NPS
- Sequoia NPS
- Golden Gate NPS
- Malibu City Offices
- Mariposa County
- Marin County
- San Diego County Schools
- San Diego City Schools
- Las Virgines Unified Schools
- The Walt Disney Company
- NBC Universal Comcast
- 365 Stores Whole Foods Markets
- Whole Foods Markets – nationally 5 regions are completed already, California is starting implementing shortly.
- EOS - Earth Friendly Products
- LA Cons Corp
- Hewlett Packard
- WAXIE
- CalPoly
- Aramark
- CBRE
- +++++

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PARKS: The standardized labels are starting to be used in regional and national parks in California.





RESULTS OF THE STANDARDIZED LABELS: NY Times wrote an article about the standardized labels last month and listed some of the results of the labels.

The New York Times

- When Bank of America donated standardized labels for all the bins at Orlando's public K-12 schools, recycling levels for the school district increased 90 percent and the district saved \$369,000 in trash hauling fees in the first year alone.
- Since starting to implement the standardized-label solution statewide, Rhode Island has already experienced a 20 percent decrease in contaminated and rejected truckloads in their recycling facility.
- Despite having millions of visitors from all over the world, Yosemite National Park's contamination levels in their recycling bins have decreased to less than 8 percent since displaying the standardized labels on their bins.
- U.S. Bank Stadium in Minneapolis, Minn., went from a 20 percent recycling level that was plagued with contamination to a new recycling level of 83 percent during game days with almost no contamination thanks to the standardized labels. As a result, the stadium hosted the first zero-waste Super Bowl in history.

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LARGEST RECYCLING EDUCATION CAMPAIGN IN US HISTORY: We have launched the largest recycling campaign to help people recycle right!



We have launched the most extensive recycling campaign in U.S. history. Approximately \$50 million of multi-media ad space has been donated to further this mission. The "Let's recycle right!" public service announcements are currently airing on major networks (ABC, CBS, NBC, FOX) in 40 of the largest cities in the U.S. Lamar digital billboards have been displaying the campaign from coast to coast, and national publications such as Parents Magazine are featuring the print ads. The PSAs are also in airports that are participating in the standardized label solution.



andrea@recycleusa.org | 11 | recycleusa.org



VIP VOLUNTEERS TO FIX RECYCLING: Celebrities, athletes, musicians, and public officials join the largest recycling campaign in U.S. history



Governor Romney
Rhode Island



Recycling bin
Rhode Island



Recycling bin
Rhode Island



U.S. Governor
Rhode Island



Secretary of State
Rhode Island



Mayor
Rhode Island



Whoopi Goldberg



Pred Gerard
2008 U.S. Olympic Gold Medalist



Alanna Kashi
TV Grammy Award Winning
Musician



Family of
Garrett Kessler
Sustainable Investor
Whole Foods Market



The campaign includes an ever-increasing list of Emmy Award winning celebrities, Grammy Award winning musicians, Olympic gold medalists, political officials, etc. who are all donating their time and influence to help recycling begin to thrive.



IN-HOME EDUCATION TOOLS

Door hangers



Refrigerator magnets



Double Folded Mailers



If desired, high impact "Let's recycle right!" education tools featuring celebrities and influencers will be created by RAA, to represent the specific recycling program for each community. These tools include: magnets, door hangers, newsletters and announcements, etc. with tips to recycle right. Bilingual (English & Spanish) communication tools can also be created.



SOCIAL MEDIA



NBCcommunity @BayAreaProud
Problem, meet solution. Learn how standardized recycling labels are key to preserving America's recycling initiative with @RecycleAcrossAm.
#LetsRecycleRight - ow.ly/9kuu30kinin



La Jolla public school students received standardized labels thanks to Kiehl's. The labels are implemented at all 180 schools in the San Diego Unified School District.



COSTS: Options to implement the standardized labels in the thirty-six counties of RCRC.

Option 1- Recycle Across America Produces the Labels

RAA prints the labels for each rural county's needs.

- RAA designs the standardized labels based on what the county and MRF defines as acceptable recyclables.
- The RCRC logo could be included on the labels.
- **Drop-off site dumpster labels pricing (24"x 36" Dumpster Labels on 3M40C with Laminate)**
 - 50-99 dumpster labels for \$51.75/label
 - 100-249 dumpster labels for \$49.50/label
 - 250-499 dumpster labels for \$46.50/label
 - 500+ dumpster labels for \$45.00/label
- **Residential cart labels pricing (8.5"x11" Residential Cart Labels on 3M40C with Laminate)**
 - 1000-4999 residential cart labels for \$5.10/label
 - 5000-9999 residential cart labels for \$5.03/label
 - 10000-24999 residential cart labels for \$4.95/label
 - 25000+ residential cart labels for \$4.88/label
- Full access to all PSA materials as PDFs to print locally at no additional cost (In agreement with the celebrities, PSA materials can only include RAA logo and government/municipality/county logos - they cannot include 'for profit' co's logos)
- Press release for each county implementing the labels

Option 2- License Agreements Allows RCRC Members to Produce the Labels

Entering into a license agreement with RAA, will allow all participating counties to produce unlimited amounts of standardized labels for their residential carts, multi-family complexes, public spaces, government buildings, drop-off centers, dumpsters, etc. Here are the options for a lifetime license agreement:

- RCRC to join on behalf of all 36 counties and each county pay their respective license fee.
- There is a \$200 annual license maintenance fee per county
 - Annual license maintenance fee is a flat rate that helps with producing the ongoing PSAs assets and additional VIPs
 - RAA will contact each organization to see how the labels are in use and provide new PSA materials that have been created.
- License comes with three (3) label designs artwork at no additional cost.
- \$100 design fee for each additional label artwork
- RAA will provide the "Let's recycle right!" PSA assets at no additional cost to RCRC to use. RAA will work with RCRC and or the participating counties to co-brand the PSAs if applicable. For profit business logos cannot be added to any Let's recycle right! PSAs that feature celebrities. Only municipalities, county's or the county associations logos can be added.
- Press release for RCRC and each county implementing the labels.

NOTE: The reason that RAA charges for printing the labels or has license agreement fees for the standardized labels, is because it allows our non-profit organization to work continuously to expand the society-wide standardized label solution across the U.S. The funds also allow us to continue to build upon the existing PSA and education campaign that each municipality can use at no cost. The celebrities donate their time and the current \$50 million worth of media placement has been donated; however there are significant production costs for the PSA campaign which are not donated, and these funds also help with those costs. The more that the public recycles properly everywhere they are, the more that every communities' recycling program will thrive and the more demand there will be for the recycled commodities in the U.S. Additional 15 to date we have donated over 750,000 standardized labels to K-12 schools across the U.S. Recycle Across America is a 501(c)(3) dedicated to expediting environmental progress, with simple proven solutions. andrea@recycleacrossamerica.org



ONE TIME LICENSE FEES: license agreement fees broken down by county, based on population

COUNTY MEMBER & POPULATION (estimate)	Negotiated group rate for a lifetime license agreement - based on (.10/pp) based on est. county population	Annual license maintenance fee	COUNTY MEMBER & POPULATION (estimate)	Negotiated group rate for a lifetime license agreement - based on (.10/pp) based on est. county population	Annual license maintenance fee
Alpine - 1.1 K	\$110.00	\$200	Mono - 14K	\$1,400.00	\$200
Amador - 38K	\$3,800.00	\$200	Napa - 136K	\$13,600.00	\$200
Butte - 220K	\$22,000.00	\$200	Nevada - 98K	\$9,800.00	\$200
Calaveras - 45k	\$4,500.00	\$200	Placer - 348K	\$34,800.00	\$200
Colusa - 21K	\$2,100.00	\$200	Plumas - 20K	\$2,000.00	\$200
Del Norte - 28K	\$2,800.00	\$200	San Benito - 55K	\$5,500.00	\$200
El Dorado - 181K	\$18,100.00	\$200	San Luis Obispo - 270K	\$27,000.00	\$200
Glenn - 28K	\$2,800.00	\$200	Shasta - 177K	\$17,700.00	\$200
Humboldt - 134K	\$13,400.00	\$200	Sierra - 3.2K	\$320.00	\$200
Imperial - 174K	\$17,400.00	\$200	Siskiyou - 45K	\$4,500.00	\$200
Inyo - 18K	\$1,800.00	\$200	Sonoma - 504K	\$50,400.00	\$200
Lake - 64K	\$6,400.00	\$200	Sutter - 94K	\$9,400.00	\$200
Lassen - 35K	\$3,500.00	\$200	Tehama - 63K	\$6,300.00	\$200
Madera - 150K	\$15,000.00	\$200	Tulare - 442K	\$44,200.00	\$200
Mariposa - 18K	\$1,800.00	\$200	Trinity - 13K	\$1,300.00	\$200
Mendocino - 87K	\$8,700.00	\$200	Toulumne - 55K	\$5,500.00	\$200
Merced - 255K	\$25,500.00	\$200	Yolo - 200K	\$20,000.00	\$200
Modoc - 9.6K	\$960.00	\$200	Yuba - 72K	\$7,200.00	\$200

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andrea@recycleacrossamerica.org



BINS MANUFACTURERS ARE MAKING IT EASY: Seven leading bin manufacturers in North America are now providing the society-wide standardized labels on their bins.





Together we can make it easy and possible for people to be able to recycle *right*, wherever they might be.

Together we can make history.



Andrea Ruiz-Hays, Director of Strategic Alliances

Email: andrea@recycleacrossamerica.org

Phone: 407.592.4727

Mitch Hedlund, Executive Director

Email: mitch@recycleacrossamerica.org

Phone: 952.250.8737

FIXES

The Conflict of Interest That Is Killing Recycling

Some of the biggest recycling operations are owned by landfill companies whose profits improve when recycling doesn't work well.

By David Bornstein

Mr. Bornstein is a co-founder of the Solutions Journalism Network, which supports rigorous reporting about responses to social problems.

Aug. 15, 2018

In the past few years, one of the core pillars of the environmental movement — recycling — has fallen on hard times. News dispatches reveal hundreds of cities and counties scaling back their recycling programs because of the high costs associated with processing recyclables and the lack of demand for the materials. A new conventional wisdom is gaining ground suggesting that recycling may not be worth the effort.

But is that true? And has recycling ever gotten a fair shake? After decades, less than a third of municipal solid waste is recycled — and much of that is contaminated with garbage, which diminishes or destroys its value. Almost 50 years after the first Earth Day, are we really ready to admit defeat and return to the “Mad Men”-era ethos of the “throwaway society”?

There may be another way. For most of the past decade, Recycle Across America, a nonprofit organization I covered in this column six years ago, has been demonstrating that it's quite possible to get people to recycle properly, just as it's possible to get most people to wear seatbelts, quit smoking and stop driving drunk. But the recycling industry has never taken the logical steps needed to create a successful societywide recycling habit — and today it may not be in the economic interest of some of the big

recycling companies to build it. Recently, I spoke with Mitch Hedlund, the founder of Recycle Across America, about this dilemma and the possibility that a recycling collapse can be avoided.



Mitch Hedlund, executive director of Recycle Across America.
Shelly Mosman/Recycle Across America

David Bornstein: What's happening to recycling today?

Mitch Hedlund: Recycling in the U.S. is in a pretty serious crisis. For example, to date, 1,000 recycling centers and processing plants have shut down in California alone.

The crisis stems from people throwing garbage in recycling bins, which contaminates the recyclables. The contamination is such an issue that China, one of the largest purchasers of U.S. recycling, has been warning the U.S. for over 10 years to start cleaning up our recyclables. But the recycling industry didn't heed the warning, and now China has quit buying most U.S. recyclables this year.

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It's important to reiterate that China's recent decision to no longer purchase recyclables from the U.S. is not the cause of the U.S. recycling crisis as has been widely reported.

DB: What led to this situation?

MH: The root of the crisis starts with the way recycling has been presented to the public. There are thousands of confusing recycling instructions on bins throughout the country, which makes people skeptical and apathetic about recycling, and projects the message that recycling is unimportant. And the inconsistent labels on bins lead to millions of tons of garbage being thrown into recycling bins. The contamination is extremely expensive to try to pull out of the recyclables during processing, which makes the recycled commodities less desirable to manufacturers — and, therefore, makes it less cost effective to recycle.

Most people don't know that this problem is easily solvable. In our work, at Recycle Across America, we've seen that the societywide standardized labeling system for recycling bins can eliminate most of the contamination. It's a simple solution — but some of the large groups that influence the recycling industry are not motivated to fix the problem.

DB: Why not?

MH: Some of the biggest and most dominant recycling companies in the U.S. are owned by landfill companies. Therefore, when recycling doesn't work well, the landfill side of their businesses becomes more profitable. You'll notice in many news articles, the recycling professionals that are providing the excuses why recycling isn't profitable or isn't worth it right now are often working for or funded by the landfill industry, the virgin materials industry or the waste-to-energy incinerator industry.

When there is this type of conflict of interest at such an influential level in the recycling industry, it becomes clear why the simple issue of public confusion at the bin wasn't resolved. Because when recycling is highly contaminated and too costly to process, then the landfills generate more revenues, the virgin material industries sell more virgin materials and there is a stronger appetite for building incinerators that burn waste to create energy.

As an analogy, imagine the groups responsible for promoting road safety in the U.S. also owning most of the auto body shops, hospitals and morgues.



Recycling bins in Brooklyn. Lisa Pines/Moment Mobile, via Getty Images

DB: What will be the effect if the recycling industry does collapse?

MH: Economically speaking, the recycling industry is more than a \$200 billion industry worldwide. For every one job in the landfill industry, there are five to 10 jobs related to recycling.

Environmentally speaking, there is no other action that society can do today to simultaneously improve our impact on the environment, manufacturing *and* the economy as recycling can. When recycling doesn't work, more finite and virgin resources are used: more oil drilled, more trees harvested, more fresh water and energy used, more materials littered, more waste in oceans, more carbon dioxide emitted, and the otherwise valuable recyclable commodities are buried in landfills or burned.

According to a Tellus Institute study, if recycling levels in the U.S. reached 75 percent, it would reduce carbon emissions equivalent to removing 50 million cars from U.S. roads each year and would create 2.3 million net domestic jobs.

DB: What would you like to see done?

MH: The primary solution to fix recycling and to help manufacturers reuse materials versus using finite resources is to have standardized labels on recycling bins throughout society. Consider the analogy: We only have to go through driver's education once, and then we can drive safely for the rest of our lives because every road sign in the U.S. is standardized.

Even though recycling programs are different from one community to the next, there can be standardized labels for every type of sorting system. Speed limits are different from one road to the next, but the standardized signs allow us to change our speed accordingly wherever we are.

DB: What's been your experience when the information is presented more consistently?



MH: There are nearly nine million standardized labels displayed on recycling bins throughout the U.S. today — and they work! Consider a few examples:

When Bank of America donated standardized labels for all the bins at Orlando's public K-12 schools, recycling levels for the school district increased 90 percent and the district saved \$369,000 in trash hauling fees in the first year alone.

Since starting to implement the standardized-label solution statewide, Rhode Island has already experienced a 20 percent decrease in contaminated and rejected truckloads in their recycling facility.

Despite having millions of visitors from all over the world, Yosemite National Park's contamination levels in their recycling bins have decreased to less than 8 percent since displaying the standardized labels on their bins.

U.S. Bank Stadium in Minneapolis, Minn., went from a 20 percent recycling level that was plagued with contamination to a new recycling level of 83 percent during game days with almost no contamination thanks to the standardized labels. As a result, the stadium hosted the first zero-waste Super Bowl in history.

Some of the hotels and theme parks at the Walt Disney World Resort in Florida saw a doubling or tripling of their recycling rates after implementing the standardized-label solution for their 90,000 employees.

DB: What can individuals do?

MH: Reduce, reuse and keep recycling! Always recycle these basics: empty metal cans, clean office paper and newspaper, clean and flattened cardboard, empty plastic bottles and jugs with necks, and if your community still accepts glass, recycle your empty glass jars and bottles.

Never put batteries, plastic bags, dishware, clothing, furniture, electronics, hoses, needles, prescription bottles, food waste or food-soiled paper in your recycle bin, unless instructed. Instead, contact your county to find out where to properly recycle, compost, donate and dispose of those items.

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DB: What can policymakers or other leaders who care about recycling do to try to save the industry?

MH: First, above all, cities, counties, states, businesses, schools, airports, sports stadiums and so forth should begin using the standardized labels on their recycling bins to make it possible for the public to begin recycling properly. Businesses and municipalities should insist that their recycling hauler begin using standardized labels. And policymakers should consider outlawing conflicts of interest in the recycling industry, if such conflicts are hindering progress.

David Bornstein is the author of "How to Change the World," which has been published in 20 languages, and "The Price of a Dream: The Story of the Grameen Bank," and a co-author of "Social Entrepreneurship: What Everyone Needs to Know."

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