

**SANTA CRUZ COUNTY  
INTEGRATED WASTE MANAGEMENT LOCAL TASK FORCE  
Thursday, September 5, 2024, 3:00 – 5:00 pm  
Santa Cruz Civic Auditorium  
307 Church Street  
Santa Cruz CA 95060  
Tony Hill Room  
(Outside Access from Civic Auditorium Church Street Parking Lot)**



Hybrid Meeting Information:

Zoom Meeting Link: <https://us02web.zoom.us/j/81436767759>

Meeting ID: 814 3676 7759

One tap mobile

+16699006833,,81436767759# US (San Jose)

+16694449171,,81436767759# US

Meeting ID: 814 3676 7759

Find your local number: <https://us02web.zoom.us/u/kdBLBZUI6Y>

**Please note:** Members/alternates attending remotely cannot vote or count toward a quorum unless arranged in advance with “just cause.”

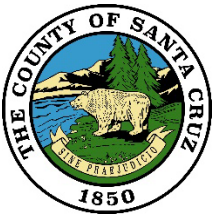
**AGENDA**

- 1) **Welcome and Quorum Verification**
- 2) **Oral communications – Public:** A time for members of the public to raise items not on the agenda and within the scope of the commission’s subject matter jurisdiction. State law prevents the commission from addressing issues in detail that are not included on the meeting agenda but it can direct staff to provide a brief answer or schedule the issue for inclusion on a future agenda.
- 3) **Oral communications - Task Force members/alternates:** A time for commission members and alternates to report on items of interest within the scope of the commission’s subject matter jurisdiction.
- 4) **Review and approve – June 6, 2024 meeting minutes (Attachment A)**
- 5) **Guest Introduction – Laura Chain, Environmental Scientist,** CalRecycle’s Countywide Local Assistance & Market Development Branch representative. Introduction, description of duties, brief Q&A.
- 6) **Jurisdictional Updates –** Opportunity for staff updates from member agencies to report on items of interest within the scope of the commission’s subject matter jurisdiction.
- 7) **Staff Update – California Redemption Value:** County FAQ (Attachment B)
- 8) **Staff Update – SB 54** Plastic Pollution Prevention and Packaging Producer Responsibility Act.
- 9) **Staff Update – SB 1383** Capacity Planning Update

10) Legislative Update (Attachment C)

11) Call for next meeting agenda items

12) Adjourn



**SANTA CRUZ COUNTY**  
**INTEGRATED WASTE MANAGEMENT LOCAL TASK FORCE**  
**Thursday, June 6, 2023, 3:00 – 5:00 pm**  
**Watsonville Civic Plaza**  
**275 Main Street**  
**Watsonville CA 95076**  
**Community Room A**  
**(Located on the Top Floor next to Council Chambers)**



**Meeting Minutes**

- 1) **Welcome and Quorum Verification:** Chair Cummings' alternate, Sandy Brown called the meeting to order at 3:04pm with seven members/alternates present and one member present on-line for swearing in.
  - Voting Members/Alternates Present: Sandy Brown (County, alternate), Ramon Gomez (County, Alternate) Jacob Guth (County, citizen rep), Will Smith (Watsonville), Tami Stolzenthaller (Watsonville, alternate), Bob, Nelson (Santa Cruz) Leslie O'Malley (Santa Cruz, alternate).
  - Non-voting Member/Alternates Present: Scott Newsome (Santa Cruz, online), Danielle Green (Watsonville, alternate).
  - Members/Alternates Absent: Justin Cummings (County, chair), Rene Golder (Santa Cruz, alternate), Jessica Kahn (Capitola), Alexander Pedersen (Capitola, alternate), Allan Timms (Scotts Valley), Eduardo Montesino (Watsonville),
  - Task Force Staff Present: Kasey Kolassa (County online) Beau Hawksford (County), Darcy Pruitt (County)
  - Agency Staff Present: Elizabeth Padilla (County), Christina Horvat (County), Mary Ann LoBalbo (County) Sam LoForti, (County online), Matt Machado (County online), Erika Senyk (Capitola), Rodolfo Onchi (Scotts Valley), Courtney Lindberg (Watsonville) Gabe Gordo (Watsonville).
  - Guests: Laura Chain (CalRecycle online), Fernando Cardenas (Second Harvest Food Bank online), Kevin DeWhitt (PDO Technology online) Claudia Villalta-Mejia (Environmetal Innovations online), Trish Pinnella (online), Juan Castillo (GreenWaste Recovery).
- 2) **Oral communications – Public:** No communications from the public
- 3) **Oral communications - Task Force members/alternates:** Staff from host City of Watsonville introduced public works employees in attendance.
- 4) **Approve February 8, 2024 Meeting Minutes:** W. Smith made a motion to approve the February 8<sup>th</sup> meeting minutes. J. Guth seconded. Guth, O'Malley, Smith, and Stolzenthaller voted to approve, none opposed. Brown, Gomez, and Nelson, who were not present for the February 8<sup>th</sup> meeting, abstained. Minutes approved by the majority.
- 5) **Swearing In Ceremony** for recently confirmed County alternates and those members and alternates who missed the June 2023 swearing in ceremony.
  - a. Elizabeth Padilla from the Santa Cruz County Clerk's Office administered the oath of office to Scott Newsome (Santa Cruz online), Sandy Brown (County), and Ramon Gomez (County).
  - b. Ms. Padilla informed those sworn that they will receive a certification form via DocuSign that must be completed to confirm their oath.

Attachment A  
June 6<sup>th</sup> Task Force Meeting Minutes

**6) Guest presentation – Clean Oceans International: Managing Plastic Waste**

- Presentation slides with notes (Attachment A),
- Data handout shared at end of presentation (Attachment B)
- Plastics to fuel video link: <https://www.youtube.com/watch?v=QAftbVeHKM0>

Presentation from D. Schwartz and A. Labbe of Clean Oceans International, and K. DeWhitt of PDO Technologies on converting certain types of plastic wastes into molecular components using pyrolysis for reuse as fuel additives and/or plastic waxes for new plastic production. Summarized the plastic waste problem that production of virgin plastic continues to increase, worldwide very little plastic is recycled (about 9%), much of the plastic found in the world's oceans is from land-based waste, and mechanical recycling is an inefficient process that involves costly transportation, high water usage, emits more greenhouse gases than pyrolysis, and can only remelt recovered plastics 2-3 times as quality declines. Presenters indicate that the molecular recycling method they propose can recycle plastics indefinitely with no reduction in material quality. If technology is implemented it could advance the circular economy by increasing effective recycling while reducing plastic waste and the production of virgin plastic.

**Q & A:**

Q: What types of plastics work best in the pyrolysis machine discussed?

A: Plastics 2, 4, 5, & 6 plastics are best for regenerating plastic waste to fuel/plastic wax.

Q: What about using agricultural plastics as an input?

A: Yes, agricultural plastics can be used and don't need to be pre-cleaned, but yield improves with cleaning.

Q: What is the price for the end product?

A: Approximately \$1,000 - \$1,500 per metric ton of plastic wax.

Q: What is the estimated startup cost to demo the machine?

A: The demo startup costs would be in the six-figure range and would depend on a number of cost variables including: transportation, land, wiring, plumbing, building/layout, and an overhead crane capable of lifting 6,000 lbs.

Q: What are the operational costs?

A: The R&D operational costs to process approximately 2,500 lbs./day would depend on a number of cost variables, including: 2-3 people/day to grind/feed plastic and monitor equipment.

Q: How much space is required to run the R&D demo machine?

A: Approximately 2,000 square foot building plus outdoor plastic storage space is needed to run one demo production machine. To run six production machines the indoor space needs is approximately 12,000 square feet. PDO Technologies has a 25,000 square foot building plus outside plastic storage.

Q: Is salt contamination an issue?

A: No.

Q: What does Clean Oceans International want from the commission?

A: Clean Oceans International's main goal is to install/operate a demo pyrolysis machine. That would include ongoing conversations about plastic conversion using pyrolysis technology, fund raising and implementation assistance including: land for a demo facility and permitting assistance.

Q: What is the estimated cost to install a permanent facility?

A: Estimated cost to install and permit a permanent 50 ton/day operational facility is \$28M

**7) Jurisdictional Updates – Opportunity for staff updates from member agencies.**

- County Board of Supervisors sent letter of support for marine flare extended producer responsibility legislation (SB 1066) to legislature and governor's office.
- County and Santa Cruz Harbor partnered on a boater survey to determine marine flare disposal practices. Survey respondents with an opinion stated there was no responsible way to properly dispose of marine flares and steps should be taken to correct the problem.
- City of Santa Cruz Resource Recovery Facility tours will begin starting June 14<sup>th</sup> through

Attachment A  
June 6<sup>th</sup> Task Force Meeting Minutes

August 23<sup>rd</sup> every Friday at 10am and 1 pm.

- Master composter program
- 8) **Staff Update – Five Year Plan Review Report** submitted and accepted as complete. (Attachment C)
- Staff shared a brief update on CalRecycle’s acceptance and approval of the Countywide Five-Year Plan Review Report. Staff thanked Task Force for its good work to complete the review report and make timely recommendations to the Board of Supervisors.
  - Members pleased with the good results of working together to efficiently accomplish this goal.
- 9) **Staff Update – CRV Discussion.** (Attachment D)
- Staff provided an update on CalRecycle’s overhaul of the CRV system that will end retailers’ ability to pay an opt-out fee rather than accept CRV items for redemption. State law requires the change to take effect on January 1, 2025. County plans to close Ben Lomond CRV on June 30, 2025 to ensure retailers have time to make the transition in north Santa Cruz County.
- 10) **Staff Update – SB 54 Plastic Pollution Prevention and Packaging Producer Responsibility Act.** (Attachment E)
- Staff provided summary overview of SB 54 intended to shift costs of recycling from municipalities to producers of single use plastic packaging. The program is intended to reduce the amount of single use plastic, ensure that all single use items are either recyclable or compostable, and increase the amount of material actually recycled.
  - Staff summarized CalRecycle’s steps in the implementation process that have been accomplished, including 2024 SB 54 Report to the Legislature, Development of Covered Materials Categories List, selection of Circular Action Alliance as the Producer Responsibility Organization, and appointment of SB 54 Advisory Board.
  - Staff and members outlined individual jurisdiction’s participation in the SB 54 rule-making process. The County, Santa Cruz, and Watsonville participated in SB 54 informal and formal rulemaking webinars. Watsonville submitted comments to CalRecycle during formal comment period.
  - Staff outlined next steps to follow as CalRecycle works with interested parties to develop a statewide needs assessment to determine the actions and investments needed for “covered materials” to meet SB 54 requirements.
  -
- 11) **Staff Update – SB 1383 Edible Food Recovery** (Attachment F)
- a. Staff provided a brief update to the Task Force on the selection of Second Harvest Food Bank as the countywide Edible Food Recovery service provider. County contract and MOU go to the Board of Supervisors for approval on their June 25<sup>th</sup> meeting agenda.
- 12) **Legislative Update**
- Staff highlighted upcoming bills that may impact waste management if passed.
    - SB 1045 and SB 1046 are contemplated by the legislature to make developing compost facilities easier. If passed, SB 1045 will require identification of suitable composting sites an element of the Land Use General Plan Element update. SB 1046 will require CalRecycle to prepare a Programmatic Environmental Impact Report for the development of small and medium sized compost facilities statewide.
    - AB 2902 would require CalRecycle to evaluate and incentivize carbon farming as part of its existing organic waste regulations
    - The legislature is contemplating three additional waste related extended producer responsibility bills:
      - SB 707 would establish a textile recovery producer responsibility organization to collect, transport, repair, sort and recycle defined textiles (CalRecycle program).

Attachment A  
June 6<sup>th</sup> Task Force Meeting Minutes

- SB 1143 would establish a household hazardous waste producer responsibility organization to provide free and convenient collection and management of covered materials (DTSC program).
- SB 1066 would establish a marine flare waste producer responsibility organization for the collection, transportation, and safe/proper management of covered products (DTSC program).
- AB 2514 if passed would expand the types of organic waste derived conversion products that would be eligible to fulfill SB 1383 procurement requirements. The current proposal would add hydrogen and pipeline biomethane.

**13) Call for next meeting agenda items**

- Members asked for additional information on how CRV transition will work locally
- Members asked for a CalRecycle presentation on SB 54 status and next steps on the Needs Assessment process.

**14) Meeting Adjourned at 4:38pm**



## Managing Plastic Waste in Santa Cruz County

### **Our Vision:**

**A healthy marine environment free of plastic pollution**



**Clean Oceans International (COI) is a Santa Cruz, California based 501c3 non-profit.**

**Founded: 2008 as The Clean Oceans Project**

### **Current Goals:**

1. Promote & facilitate Portable Plastic Waste Conversion (PPWC) technology to small communities and island nations.
2. Improve Plastic Pollution Assessment.

COI's **Mission** is to reduce oceanic plastic pollution through research, innovation, and direct action.  
GOAL #1 PPWC: COI and its partners are currently working with people in Kauai, Micronesia and Alaska. The 2 Goals can work together or independently.

## Plastic Waste Issues

- Production
- Lack of effective global waste management options
- ~91% of plastic is not recycled

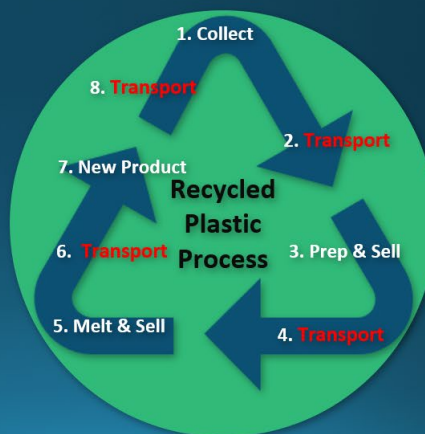


Plastic waste collected over 9 weeks from Main Beach, Santa Cruz, Ca

Issues are numerous: Plastic Prod has more than doubled in last 20yrs. Current projections show plastic production tripling by 2050. As of 2015, approximately 6300 Mt of plastic waste had been generated, around 9% of which had been recycled, **12% was incinerated, and 79% was accumulated in landfills or the natural environment**. If current production and waste management trends continue, roughly 12,000 Mt of plastic waste will be in landfills or in the natural environment by 2050. **The lack of effective waste management results in numerous environmental issues, and marine and terrestrial ecosystem damage we all have heard about.** Plastic production is projected to triple between 2019 - 2060.



Of the 9% of plastic that is recycled, transport & handling contribute to a high carbon footprint.



Of the small % of plastic that is recycled, (5-6% in the US) that are many steps of collecting, sorting, grinding, washing, melting and molding that involve transportation = costs money and increases the carbon footprint. In our model, PPWC involves far less transportation.

## A Better Alternative Portable Plastic Waste Conversion

PPWC creates value  
from a  
waste management  
challenge



COI and its partners strongly believe that Plastic Waste Conversion to usable products is part of the solution. Creating value can increase motivation to manage waste and improve the environment. If you produced 100 gallons of diesel from plastic waste/day, it would be 100 gallons of diesel you don't need to buy.

## COI and the “EFT 100” Timeline

- 2016 - 2020 Cabrillo College
- 2020 - 2024 Oregon State Univ.
- April 2024 Kodiak Alaska
  - Ocean Plastics Recovery Project



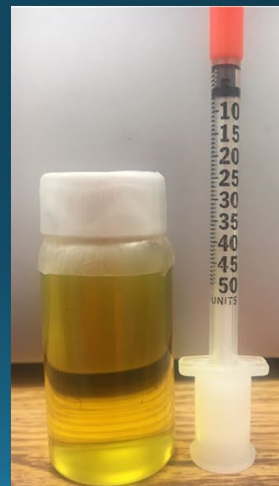
COI Founder with EFT100 Machine at Cabrillo College

A PPWC (EFT 100 “Eco Fuel Technology”) machine lived in SC County for 4 years, students at CC and UCSC studied it for 2 years. The management of the machine grew outside our capabilities, and we moved it up to OSU. The Oceans Plastic Recovery Project in Kodiak Alaska is its current home. This shows that COI has been researching pyrolysis for 8+ years.

## Academic Partner Oregon State University (OSU) Dept of Chemical Engineering Reactors and Results



OSU Bench-Scale Reactor



Pandemic Syringes to Diesel

Our academic partner at OSU, Dr. Skip Rochefort is a pyrolysis expert who has done extensive research on the topic. He and his students build machines and analyze the products on a semester basis. His results document that plastic diesel fuel are comparable to gas station diesel. He has volunteered to test the products of pyrolysis in Santa Cruz County to ensure they pass regulations.

## Industry Partner PDO Technologies Plastic Conversion System (Full-scale Prototype)



- 96% less energy
- 58% less water
- 14% less greenhouse gases

Brooks Oregon: COI toured it on 11/7/23 #s SHOW: PDO Plastic Conversion vs. Conventional Petroleum Mining. A Batch Reactor: 1,250lbs of plastic to ~125 gallons of diesel, can be run 4X/day PDO is willing to loan SC County a system similar to this and I urge you to take a closer look. This PDO Technologies system fits a city of approximately 50,000 people. PDO = “Plastic Derived Off-take”

## PDO Technologies Plastic Conversion System Thermal Processing System Features, KPIs and Metrics

- Capable of R & D (shorter time period) or Production operation (longer time period)
- Generates a versatile product suite that can be tailored to the needs of the end-user
- Utilizes a portion of its product for operations
- Electrical & Thermal loads per ton processed are low – highly efficient, simple systems
- Fully-permitted technology in Oregon, Minnesota, Georgia & Florida (2012, 2013)
- Energy-Returned-on-Energy-Invested (EROEI) is >5:1 (5 units out for each 1 unit of process energy in)
- No wastewater discharge: All water is confined to closed-loop systems (e.g., chillers, coolers)
- Can be commissioned/decommissioned easily
- Generates minimal emissions (see next slide)

PDO's TPS is considered to be “very small scale” (vss) plastics pyrolysis. As such, emissions profiles are also quite small in scale.

## PDO Technologies Plastic Conversion System Emissions Modeling Tool:

Preliminary Emissions Data - Criteria Pollutants			
Criteria Pollutant	Process Burner, tons/yr	Oxidizer, tons/yr	Total, tons/yr
Particulate Matter (PM)	0.013	0.184	0.197
Sulfur Dioxide (SO <sub>2</sub> )	0.001	0.254	0.254
Oxides of Nitrogen (NO <sub>x</sub> )	0.413	0.442	0.856
Carbon Monoxide (CO)	0.238	0.042	0.281
Carbon Dioxide (CO <sub>2</sub> )	397	206	603.514
Nitrous Oxide (N <sub>2</sub> O)	0.029	0.015	0.043
Methane (CH <sub>4</sub> )	0.008	0.004	0.012
Volatile Organic Compounds (Total Hydrocarbons - THC)	0.025	0.017	0.042

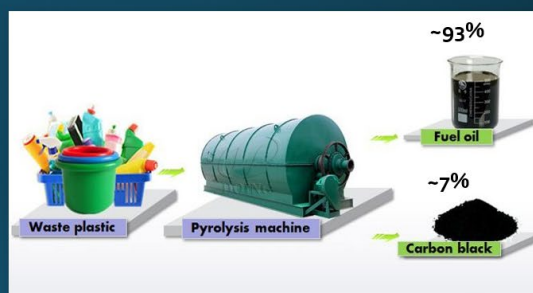
  

Number of TPU Units	Total Cycle Time/Batch (hrs)	Total PRU Cycles/year	Process Burner Fuel <input checked="" type="radio"/> Propane <input type="radio"/> Natural Gas  Oxidizer Output <input checked="" type="radio"/> EF 1 (lb/lb processed) <input type="radio"/> EF 2 (lb/gallon oil)  Storage Tanks Onsite <input checked="" type="radio"/> One <input type="radio"/> Two <input checked="" type="checkbox"/> Show GHG Species
Operational Days/year	Process Burner Time/Batch (hrs)	Total Plastic Throughput (lbs/yr)	
Batch Size (lbs/Batch)	Process Burner Output (BTU/hr)	Total Oil Production (gallons/yr)	
NOG generated/cycle (ft <sup>3</sup> )	NOG Energy Content (BTU/ft <sup>3</sup> )	Equipment UpTime Percentage (%)	

PDO's TPS is considered to be “very small scale” (vss) plastics pyrolysis. As such, emissions profiles are also quite small in scale.

## Valuable Benefits of Plastic Waste Conversion in SC County

- Reduce plastic waste
- Conversion to new products
- Educational Opportunities
- Reduce transportation of plastic waste
- Reduce energy, water, and CO2 emissions
- Opportunity for Global Environmental Leadership



If you are open to the possibility, this could be an opportunity for this system to serve as a “Research and Demonstration Facility”. COI and OSU can be involved of the testing / research. Get local college students involved, eventually invite Environmental Groups take a look. Examples of PDO products are Diesel and gasoline additives.



Santa Cruz Coastal Cleanup - Moran Lake - Fall 2017

## In Summary

COI's goal is to assist with SC County plastic waste problem.  
PDO Technologies is willing to loan a Plastic Conversion System to SC County.  
COI and our partners will help answer questions about permits and emissions.  
A local facility can serve as a model for additional locations.

We realize there is going to be challenges, but our hope is that this task force and COI can work together to make this a reality, like in Brooks Oregon. COI, PDO and OSU will help answer questions about permitting, air emissions and environmental impacts. I urge you to consider this opportunity and consider taking a closer look at the facility in Brooks Oregon. Homer plans to visit and document the process. Give it a chance to be a “Research and Demonstration Facility” Plastic waste management is virtually non-existent in most of the world. Bringing that option to communities of any size in any location reduces plastic waste available to pollute the Ocean. Converting plastic into fuel brings financial motivation and a cleaner community.

## Thank You Questions?

David Schwartz  
Education Director  
davids@cointl.org

Kevin DeWhitt  
Founder / CEO  
PDO Technologies  
kevin.dewhitt@pdotech.com

Amelia Labbe  
Managing Director  
amelia@cointl.org








Thank you for your time.

## Clean Oceans International – PDO Technologies Handout

PDO Technologies specializes in converting heterogeneous waste plastic materials into valuable hydrocarbon molecules. These molecules can be used as fuels (Chemical Recycling) or reintroduced into the plastic production process (Advanced Recycling). The “PDO” acronym stands for Plastic Derived Offtake. The following are frequently asked questions posed in the past.

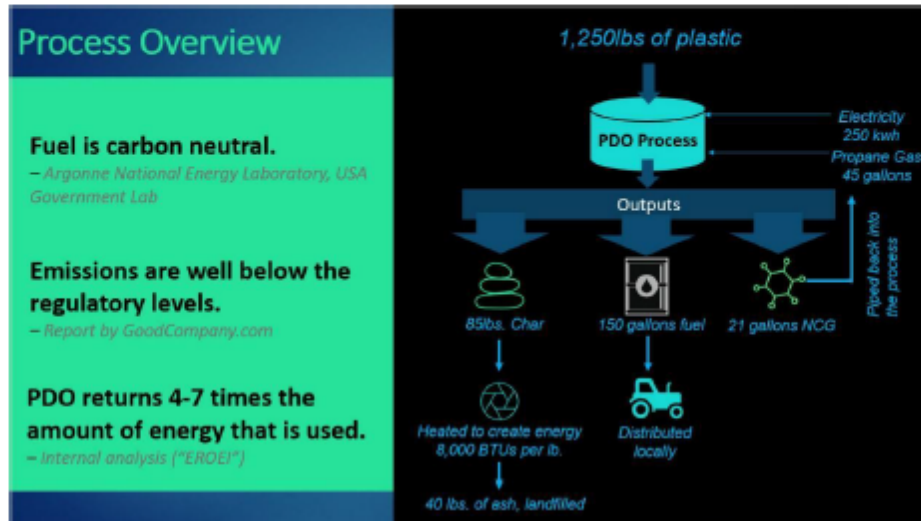
## #1 Input requirements and restrictions?

Plastic resin types 2, 4, 5, and 6 are acceptable input types. Types 1 and 3 are not currently acceptable. Some of the #7 resin codes (other) can also be accepted, on a case-by-case basis.

1 PETE	2 HDPE	3 PVC	4 LDPE	5 PP	6 PS	7 OTHER
Polyethylene Terephthalate	High-Density Polyethylene	Polyvinyl Chloride	Low-Density Polyethylene	Polypropylene	Polystyrene	Other
Common products: soda & water bottles; cups, jars, trays, clamshells	Common products: milk jugs, detergent & shampoo bottles, flower pots, grocery bags	Common products: cleaning supply jugs, pool liners, twine, sheeting, automotive product bottles, sheeting	Common products: bread bags, paper towels & tissue overwrap, squeeze bottles, trash bags, six-pack rings	Common products: yogurt tubes, caps, juice bottles, straws, hangers, sand & shipping bags	Common products: to-go containers & flatware, hot caps, razors, CD cases, shipping cushion, cartons, trays	Common types & products: polycarbonate, nylon, ABS, acrylic, PLA; bottles, safety glasses, CDs, headlight lenses
Recycled products: clothing, carpet, clamshells, soda & water bottles	Recycled products: detergent bottles, flower pots, crates, pipe, decking	Recycled products: pipe, wall siding, binders, carpet backing, flooring	Recycled products: trash bags, plastic lumber, furniture, shipping envelopes, compost bins	Recycled products: paint cans, speed bumps, auto parts, food containers, hangers, plant pots, razor handles	Recycled products: picture frames, crown molding, rulers, flower pots, hangers, toys, tape dispensers	Recycled products: electronic housings, auto parts
						

## #2 Output material and characteristics and quantities?

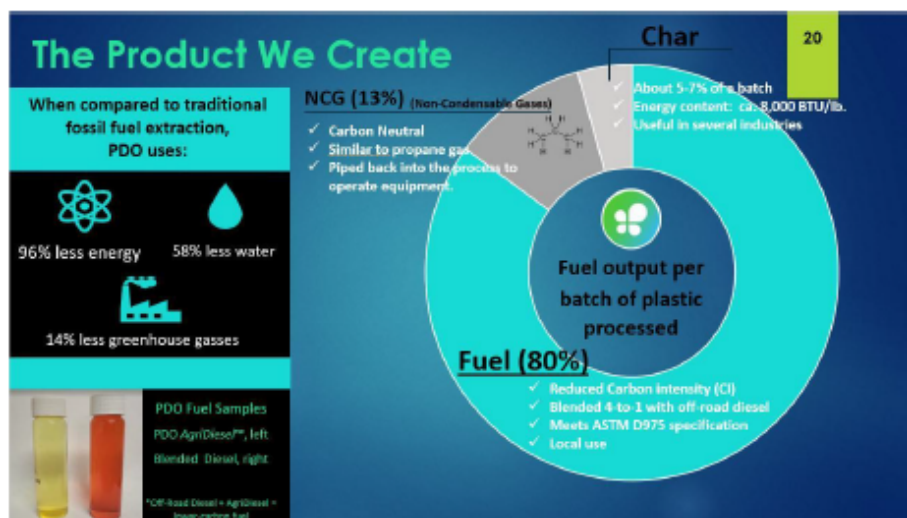
Depending on the input, the output is a varying percentage of three “products”: diesel-sized molecules, gasoline-sized molecules, and wax-sized molecules. The slide below concentrates on fuel (only diesel and gas-sized molecules) as a product, but the whole, unseparated product (gas+diesel+wax) is currently being highly sought after. On an island nation or state, however, PDO would employ an additional step to convert the wax species and generate only diesel and gasoline-sized molecules. Some residual char is produced which is dependent on the input feedstock.



June 6<sup>th</sup> Task Force Meeting Minutes  
Attachment B  
Clean Oceans International – PDO Technologies Handout

### #3 Limitations on the use of the product?

The best use is dependent on the desired end-use and specific situation. Liquid can be completely fractionated into separate fuel components with the input of additional energy. This slide shows the products if PDO uses its proprietary catalyst to “dewax” the end product, leaving only diesel and gas. But, if no catalyst and no separation are needed, the “neat” (aka whole) product can be used (wax+diesel+gas) by the petrochemical industry to produce new plastics. The end product is really dictated by the customer and the desired end use of the material.



### #4 What are the energy requirements?

There are different ways to provide the heat employed in the process. Depending on the design, the energy required can come from electric, solar, or propane sources.

### #5 Space requirements?

PPWC facilities must be covered and have an area to stockpile plastic feedstock that is not affected by the elements. An ideal scenario for a single system is a shelter approximately 50'L x 50'W x 26' tall with enclosed storage bins accessible to heavy machinery. A plastic shredder/granulator will facilitate efficiency in the system.

### #6 What are the personnel requirements for operation?

The proposed facility will require one supervisory position and one assistant for loading/unloading, space cleanup, and machinery maintenance. PDO Technologies will provide training to supervise the processing. The staffing decision will need to be decided by the facility management and their and their insurance providers' satisfaction.

COI would be happy to facilitate documentation and evaluation of input and output for staff and would like to include the option for OSU, UCSC, and Cabrillo student participation.

### #7 Is there cleaning in between uses?

Yes, the removable Plastic Processing Cartridges (PPCs) must be emptied of char between each batch; this offline process occurs while a second PPC is simultaneously being processed in the Thermal Processing Unit (TPU). After cleaning and refilling, the “fresh” PPC is placed in the processing queue and remains until the currently processed cartridge is removed from the TPU.

### #8 How scalable is the equipment?

The test unit is capable of containing approximately 1,250 lbs per batch. Units have been built as small as ½ lb of input as a testing system, while some facilities in the USA can process hundreds of tons per day. The system

June 6<sup>th</sup> Task Force Meeting Minutes  
Attachment B  
Clean Oceans International – PDO Technologies Handout

employed by PDO Technologies allows for two or more PPCs to be made ready while one batch is being converted in order to maximize efficiency of time and energy.

**#9 What is your desired outcome? A test of the prototype? Or a larger unit?**

Clean Oceans International was created to reduce plastic in the world's oceans. We believe that deployment of a Portable Plastics Waste Conversion (PPWC) technology will provide the option for large and small communities in any location to more efficiently manage their plastic waste, thereby keeping it out of the environment. A PPWC system in Santa Cruz County will be a source of education on whether this technology will prove effective, efficient, and environmentally sensitive while reducing costs.

A two-year study will be long enough to make educated decisions on the efficacy and financial impact of PPWC on the ability to manage plastic waste. If it proves to be a positive solution, we will be in a favorable position to share our findings with the global community for the duration of petroleum products on planet Earth. This suggests that the proposed facility will be a prototype for the development and optimization of PPWC to provide a reduced carbon solution for plastic management.

**#10 Infrastructure Requirements?**

This is subject to a facility's requirements/needs. We envision the PPWC system to be set up on the grounds of the existing facility in close proximity to plastic sorting.

**#11 Are there any critical evaluations or performance testing of the equipment we can review?**

Municipal permitting is a critical evaluation where a proposed technology project undergoes detailed examination by regulatory bodies. Engineering and design are assessed through building and land usage permits, while technical efficacy is regulated by environmental permitting and compliance testing. This technology, commercialized over a decade ago, has seen successful deployments in OR, MN, GA, and FL with all permits publicly available in their respective states.

Key Performance Indicators (KPIs) for waste plastic conversion include material throughput, Energy Returned on Energy Invested (EROEI), and economic viability. Throughput, though partly subjective, is crucial for economic viability and validated in prior commercial use. The current equipment design has an EROEI value between 4:1 and 7:1, indicating high energy efficiency. Economic viability, influenced by numerous factors and local constraints, is assessed using PDO's in-house model, which analyzes 110 variables to evaluate project potential across the U.S.

## **Five-Year Plan Review Report CalRecycle Accepted and Approved**

### **Five-Year Review Report for the Regional Agency Integrated Waste Management Plan**

- Five-Year Review Report submitted by Santa Cruz County
- No revisions at this time



## CRV Changes Statewide and in Santa Cruz County

- CRV at Ben Lomond Transfer Station will continue through June 30, 2025.
  - Grey Bears will continue to operate CRV under contract with Santa Cruz County.
- CalRecycle overhauls CRV starting January 1, 2025
  - Retailers will no longer be able to pay a \$100/day fine to avoid collecting CRV items in store.
    - Retailers must either:
      - Develop 'Cooperative Recycling Sites' with other retailers to redeem CRV items locally, or
      - Collect and refund CRV items in store
- County plans to close CRV at Ben Lomond Transfer Station on June 30, 2025.
  - Savings of approximately \$80,000 - \$100,000.



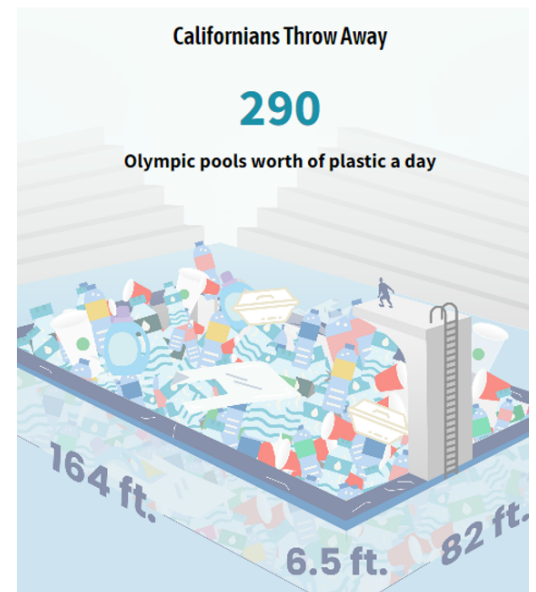
## **SB 54: Plastic Pollution Prevention and Packaging Producer Responsibility Act**

- SB 54 establishes a new extended producer responsibility program to manage packaging and single-use plastic food ware.
- Requires producers to ensure packaging and plastic food ware sold in California is recyclable or compostable.
- Gives producers primary responsibility for managing products at the end of their useful life.



## **SB 54: Plastic Pollution Prevention and Packaging Producer Responsibility Act**

- Packaging makes up over 50% of what we dump in California landfills by volume.
- We must reduce packaging waste and ensure it gets recycled to meet our state's diversion and climate goals.
- SB 54 Goals by 2032:
  - Cut sale of single-use packaging by 25%
  - Actually recycle 65% of all packaging sold
  - Ensure 100% of all packaging is either recyclable or compostable
  - Build a truly circular economy



## Producers Play a Strategic Role in Building a Truly Circular Economy under SB 54

- Producer Responsibility Organization (PRO) will administer the process to shift packaging pollution burden from municipalities to product/packaging producers
- Producers will ensure that the packaging and plastic food ware sold in California is recyclable or compostable.
- Producers responsible to:
  - Cut plastic pollution.
  - Manage products after their useful life.
  - Market products that are more easily reused or recycled.
  - Support disadvantaged, low-income, and rural communities most impacted by plastic waste.

### Producer Responsibility Organizations



Create Programs



Increase Recycling



Cut Trash Pollution in Disadvantaged Communities



Enroll Manufacturers



Pay All Implementation Costs

## SB 54 CalRecycle Oversight – to date

- Published *Recyclability Status of Covered Materials Categories* – SB 54 Report to the Legislature
  - December 2023
- Published Covered Material Categories List and Supplemental Material
  - December 2023
- Circular Action Alliance Selected as PRO
- Appointed Advisory Board in February 2024
  - 13 voting members
  - 3 non-voting members
    - Next Advisory Board Meeting is scheduled for June 21, 2024, from 10:00am–5:00pm
- Published Draft Regulatory Text February 27, 2024
  - Comments accepted from March 8 – May 8, 2024

### CalRecycle



Oversees Program



Appoints Advisory Board



Researches Packaging Waste Types



Reviews Plan and Budget



Publishes Recyclable or Compostable Material Categories List



Calculates and Publishes Recycling Rates for Covered Materials

## SB 54 CalRecycle Oversight (next steps)

- Develop Statewide Needs Assessment
  - Determine the **actions and investments** needed for covered materials to meet SB 54 requirements.
    - Evaluate covered material categories
      - Product design
      - Collection
      - Reuse and Refill systems
      - Recycling and composting systems
      - End markets and market development
      - Consumer education
- Producer Responsibility Organization Plan must describe how to implement the **actions and investments** laid out in the needs assessment.



## SB 1383 Edible Food Recovery Update

- County and local cities select Second Harvest Food Bank to support countywide Edible Food Recovery projects:
  - Food Recovery Partner Survey,
  - Capacity Planning Reporting,
  - CalRecycle Electronic Annual Report (EAR),
  - Bilingual edible food recovery outreach materials,
  - Tier 1 Vendor/Distributor outreach and onboarding,
  - Tier 2 outreach and onboarding,
  - Tier 2 edible food recovery food safety training,
  - Technology to improve edible food recovery:
    - Communication,
    - Collection, and
    - Record keeping and reporting.
- Second Harvest Contract and MOU with Cities
  - County Board of Supervisors June 25, 2024 Agenda.



Attachment B  
California Redemption Value (CRV)  
County Frequently Asked Questions

**California Redemption Value (CRV) Changes on the Horizon**

**What is CRV?**

California Redemption Value (CRV) is a Statewide program to mandate beverage container recycling by charging and reimbursing consumers when they purchase and recycle beverage containers. Consumers pay a CRV fee when they purchase covered beverages packaged in aluminum, glass, plastic, or bi-metal containers. The fee is 5 cents for containers under 24 ounces and 10 cents for containers 24 ounces or more. Boxes, bladders, or pouches containing wine, distilled spirits, wine coolers, or distilled spirit coolers were covered beginning January 1, 2024, for a 25-cent fee/refund.

The funds from the California Redemption Value (CRV) Program primarily support California's recycling programs. Most of the money is returned to consumers who recycle their eligible beverage containers at certified recycling centers. The County does not earn any revenue from the CRV program; instead, we cover the costs associated with supporting the program.

**What important CRV changes should you know about?**

State law has mandated CRV improvements scheduled to start January 1, 2025, to give Californians more ways to redeem their CRV deposits. Beverage retailers not served by a recycling center will no longer be able to opt out from redeeming containers. Starting January 1, 2025, retailers required to redeem beverage containers will have to:

1. Redeem CRV containers in store, or
2. Join a retailer cooperative that redeems on their behalf.

Removing retailers' option to pay a small fine instead of providing CRV redemption services will result in more physical locations that accept CRV.

**Why is the CRV redemption center in Ben Lomond Transfer Station closing?**

- The State CRV program is changing to require beverage retailers to pay the costs of beverage containers recycling, which allows the County to stop spending local funds on this statewide program.
- Statewide changes to the CRV program should give consumers more opportunities to recycle beverage containers and redeem CRV deposits locally.
- Rising business costs of running a CRV redemption center.
- More beverages are sold in plastic containers with little scrap value, instead of more profitable aluminum.

**How do I find a CRV beverage container redemption location?**

Visit the CalRecycle website at **[calrecycle.ca.gov](https://www2.calrecycle.ca.gov)** and search for:

- In-Store CRV Redemption  
<https://www2.calrecycle.ca.gov/BevContainer/InStoreRedemption/>

Attachment B  
California Redemption Value (CRV)  
County Frequently Asked Questions

- Beverage Container Recycling Centers  
<https://www2.calrecycle.ca.gov/BevContainer/RecyclingCenters/>

**Will the Ben Lomond Transfer Station still accept CRV Beverage containers for recycling?**

The Ben Lomond Transfer Station will still be accepting all CRV beverage containers for recycling but will not be paying out CRV fees (5 cents for containers less than 24 oz; 10 cents for containers more than 24 oz; 25 cents for adult beverage boxes, bladders and pouches.) in exchange for the CRV beverage containers starting July 1, 2025.

**Where are CRV recycling centers located in Santa Cruz County?**

- Ben Lomond Transfer Station, 9835 Newell Creek Rd.
  - **Starting July 1, 2025, Ben Lomond Transfer Station will no longer provide reimbursement in exchange for CRV containers. Ben Lomond Transfer Station will still recycle beverage containers. Beverage retailers will manage CRV acceptance and reimbursements.**
- A & S Metals- 1080 W. Beach St. Watsonville
- Ada's Recycling-1426 Freedom Blvd. Watsonville
- Watsonville Metal Company Incorporated-213 Dias Ln. Watsonville
- Cuevas Recycling-1200 Main St. Watsonville

**How do I complain about a business that is obligated to redeem beverage containers?**

- Email complaints directly to CalRecycle at: [Complaints@calrecycle.ca.gov](mailto:Complaints@calrecycle.ca.gov)

**Where can I find more information or assistance regarding the CRV Program changes?**

- Additional information and assistance can be found on the CalRecycle website at:  
<https://calrecycle.ca.gov/bevcontainer/wine-spirits/>

Attachment C  
Legislative Update – August 28, 2024  
Bills relating to waste management, recycling, and hazardous materials and waste.

**Compost Facilities - Land Use and CEQA**

**SB 1045**, as amended, Blakespear. Composting facilities: zoning.

Existing law provides that the Office of Planning and Research serves the Governor and the Governor's Cabinet as staff for long-range planning and research, and constitute the comprehensive state planning agency. In that capacity, existing law requires the office to, among other things, assist local governments in land use planning. Existing law, the California Integrated Waste Management Act of 1989, establishes the Department of Resources Recycling and Recovery to administer an integrated waste management program. Existing law establishes a goal that statewide landfill disposal of organic waste be reduced from the 2014 level by 75% by 2025. *This bill, on or before June 1, 2026, would require the Office of Planning and Research, in consultation with the Department of Resources Recycling and Recovery, to develop and post on the office's internet website, a technical advisory, as provided, reflecting best practices to facilitate the siting of composting facilities to meet the organic waste reduction goals. The bill would require the office to consult with specified entities throughout the development of the technical advisory.* The Planning and Zoning Law requires each county and city to adopt a comprehensive, long-term general plan for its physical development, and the development of certain lands outside its boundaries, that includes, among other mandatory elements, a land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, solid and liquid waste disposal facilities, and other categories of public and private uses of land, as prescribed. *This bill, upon a substantive revision of the land use element, as specified, on or after January 1, 2028, would require a city, county, or city and county to consider, among other things, the best practices reflected in the technical advisory and to consider updating the land use element to identify areas where composting facilities may be appropriate as an allowable use.* By increasing duties on a city, county, or city and county, the bill would impose a state-mandated local program. Active Bill – In Committee Process

**SB 1046**, as amended, Laird. Organic waste reduction: program environmental impact report: small and medium compostable material handling facilities or operations.

Existing law requires the Department of Resources Recycling and Recovery, in consultation with the State Air Resources Board, to adopt regulations to achieve certain reduction targets in the organic waste disposed in landfills and to analyze the progress that the waste sector, state government, and local governments have made in achieving those reduction targets, as provided. Existing law authorizes the department to provide incentives to facilitate progress towards the reduction targets if the department determines that sufficient progress has not been made. The California Environmental Quality Act (CEQA), requires a lead agency, as defined, to prepare, or cause to be prepared, and certify the completion of an environmental impact report on a project that it proposes to carry out or approve that may have a significant effect on the environment or to adopt a negative declaration if it finds that the project will not have that effect, as provided. Existing regulations describe the advantages and uses of a program environmental impact report. This bill would require the Department of Resources Recycling and Recovery to prepare and certify, by January 1, 2027, a program environmental impact report that streamlines the process with which jurisdictions can develop and site small and medium compostable material handling facilities or operations, as defined, for processing organic material, as specified. Active Bill – Passed – In Assembly Appropriations

**Edible Food Recovery and Organic Waste Diversion Exemptions**

**AB 2658**, as introduced, Bains. Short-lived climate pollutants: organic waste: reduction regulations: exemption. Existing law requires the State Air Resources Board to implement a comprehensive short-lived climate pollutant strategy to achieve a reduction in statewide emissions of methane by 40% by 2030. Existing law requires the methane emissions reduction goals to include a 75% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2025. Existing law requires the Department of Resources Recycling and Recovery, in consultation with the state board, to adopt regulations to achieve these organic waste reduction goals that include, among other things, requirements intended to meet the goal that not less than 20% of edible food that is currently disposed of be recovered for human consumption by 2025 and that may include penalties to be imposed by the department for noncompliance, as provided. *This bill would exempt from the above-referenced organic waste reduction goal requirements and regulations, food processing establishments, as defined, that do not divert organic waste to landfills.* Active Bill - In Committee Process

**AB 2902**, as amended, Wood. Organic waste: reduction regulations: exemptions.

(1) Existing law requires the State Air Resources Board to complete, approve, and implement a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state to reduce the statewide methane emissions by 40% below 2013 levels by 2030. Existing law requires methane emissions reduction goals to include specified targets to reduce the landfill disposal of organics. Existing law requires the Department of Resources Recycling and Recovery, in consultation with the state board, to adopt regulations that achieve those targets for reducing organic waste in landfills, as provided. The department's organic waste regulations provide different organic waste procurement targets for local jurisdictions based on population and provide waivers and exemptions from collection and procurement requirements for rural, low-population, and high-elevation jurisdictions. Existing law provides that the exemption for rural jurisdictions is valid until December 31, 2026, as specified. This bill would extend the rural jurisdiction exemption until January 1, 2037, except as provided, and would require the department to adopt regulations to establish a process to renew the exemption after that date for periods of up to 10 years. The bill would require, commencing January 1, 2027, those jurisdictions to take specific actions to help reduce, divert, or recycle organic waste. The bill would require the department to exclude residents included in department-issued low population or elevation waivers from the population in determining a local jurisdiction's organic waste procurement target. The bill would require a jurisdiction that no longer qualifies for a rural exemption due to an increase in population to have 3 years from the date of that population increase to comply with the organic waste collection services and procurement requirements, as specified. The bill also would authorize nonexempt counties that generate less than 200,000 tons of solid waste annually to request the department's approval of a different organic waste diversion and recycling program. The bill would authorize a nonexempt jurisdiction to request a waiver from the department from a requirement to separate and recover food waste and food-soiled paper if there are significant public safety issues associated with food waste collection as a result of local bear populations, as provided.

(2) Existing law requires the department, in consultation with the state board, to analyze the progress made in achieving the reduction targets for the amounts of organic waste disposed of in landfills and authorizes the department to provide incentives to facilitate progress toward the reduction targets, as provided. *This bill would require the department's organic waste regulations to evaluate ways to incentivize carbon farming, and would require the department to develop*

Attachment C  
Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste. *training and technical assistance materials to assist local governments in expanding community composting operations, to create a model ordinance and franchise provisions that exempt small-scale community composting operations from specific regulatory and exclusivity provisions, and to evaluate ways to maximize the local benefits of edible food recovery programs and explore circumstances in which recovered food may be more suitable for use in local animal feed operations.* This bill would authorize the department, in conjunction with the California Pollution Control Financing Authority and the California Infrastructure and Economic Development Bank, to provide information to the owners and operators of landfill and composting operations that may be a potential source of methane emissions about financing that may fund facility improvements to increase the capture, or reduce the escape, of methane emissions. (3) Existing law requires at least once every 2 years, the department to review each jurisdiction's source reduction and recycling element and household hazardous waste element for compliance with requirements for the diversion of solid waste from landfills by source reduction, recycling, and composting. This bill would instead require that review at least once every 4 years. (4) Existing law requires the department, upon appropriation, to administer a grant program to provide financial assistance to promote the in-state development of infrastructure, food waste prevention, or other projects to reduce organic waste, sort and aggregate or process organic and other recyclable materials into new, value-added products, or divert items from disposal through enhanced reuse opportunities. Existing law specifies eligible infrastructure projects for purposes of the program. This bill would make the deployment of bear bins to minimize adverse human-and-bear interactions related to the collection and management of solid and organic waste an eligible infrastructure project. (5) This bill would incorporate additional changes to Section 42652.5 of the Public Resources Code proposed by AB 2346 and AB 2514 to be operative only if this bill and any or all of the other bills are enacted and this bill is enacted last. (6) This bill would incorporate additional changes to Section 42999 of the Public Resources Code proposed by AB 2311 to be operative only if this bill and AB 2311 are enacted and this bill is enacted last. Active Bill – In Floor Process

**SB 1175**, as amended, Ochoa Bogh. Organic waste: reduction goals: local jurisdictions: waivers. Existing law requires the State Air Resources Board to approve and begin implementing a comprehensive short-lived climate pollutant strategy to achieve a certain reduction in statewide emissions of methane, including a goal of a 75% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2025. Existing law requires the Department of Resources Recycling and Recovery, in consultation with the state board, to adopt regulations that achieve those targets for reducing organic waste in landfills that may include, among other things, different levels of requirements for local jurisdictions and phased timelines based upon their progress in meeting the organic waste reduction goals, and penalties to be imposed by the department for noncompliance. The department's regulations authorize low-population and elevation waivers for a local jurisdiction, based on, among other things, a consideration of the jurisdiction's census tracts, that exempt the jurisdiction from all or some of the department's organic waste collection requirements. *This bill would require the department to revise the regulations to require the department to consider, in addition to census tracts, alternatives to those census tracts, as provided, when deciding the geographic boundaries of a low-population or elevation waiver, as specified. The bill would prohibit the department from considering those alternatives when deciding the boundaries for those waivers until it adopts the revised regulations.* Active Bill - In Committee Process

## Attachment C

Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste.

### Extended Producer Responsibility

**SB 707**, as amended, Newman. Responsible Textile Recovery Act of 2024.

The California Integrated Waste Management Act of 1989, administered by the Department of Resources Recycling and Recovery, generally regulates the disposal, management, and recycling of solid waste. The act establishes stewardship programs for various products, including, among others, carpet, mattresses, and pharmaceutical and sharps waste. This bill would enact a stewardship program known as the Responsible Textile Recovery Act of 2024, which would require a producer of apparel, as defined, or textile articles, as defined, to form and join a producer responsibility organization or PRO. The bill would require the PRO to be approved by the department pursuant to the requirements of the bill, as provided. The bill would require the department to adopt regulations to implement the program no earlier than January 1, 2028. *The bill would require the PRO to submit to the department, for approval or disapproval, a complete plan for the collection, transportation, repair, sorting, and recycling, and the safe and proper management, of apparel, as defined, and textile articles, as defined, in the state.* Upon approval of a plan, or commencing January 1, 2030, whichever is earlier, *the bill would prohibit a producer from selling, offering for sale, importing, or distributing apparel or textiles in or into the state, unless the producer is a participant of a PRO, the department has approved the plan, and other criteria are met.* The bill would require the PRO to review the plan at least every 5 years after approval. The bill would also require a PRO to submit an annual report to the department, as provided. The bill would require all reports and records provided to the department to be provided under penalty of perjury. By expanding the scope of the crime of perjury, the bill would impose a state-mandated local program. The bill would restrict public access to certain information collected for the purpose of administering the program. This bill would require the department to post on its internet website a list of producers that are in compliance with the requirements of the program. The bill would require PROs to pay fees to the department, not to exceed the department's actual and reasonable regulatory costs to implement and enforce the provisions of the act. The bill would establish the Textile Stewardship Recovery Fund in the State Treasury for the deposit of all moneys received from PROs and would make the moneys in the fund available to the department, upon appropriation by the Legislature, for purposes of the program. The bill would also authorize the department to impose administrative civil penalties for a violation of the program's requirements, not to exceed \$10,000 per day, or not to exceed \$50,000 per day for an intentional or knowing violation, as specified. The bill would create the Textile Stewardship Recovery Penalty Account in the fund for the deposit of penalties, which would be available for expenditure upon appropriation by the Legislature, as specified. Existing constitutional provisions require that a statute that limits the right of access to the meetings of public bodies or the writings of public officials and agencies be adopted with findings demonstrating the interest protected by the limitation and the need for protecting that interest. This bill would make legislative findings to that effect. Active Bill - In Floor Process

**SB 1143**, as amended, Allen. Paint products: stewardship program.

(1) Existing law establishes the architectural paint recovery program, which is administered by the Department of Resources Recycling and Recovery (CalRecycle) and requires a manufacturer or designated stewardship organization to develop and implement a stewardship plan. Existing law requires the stewardship plan to include a recovery program to reduce the generation of, promote the reuse of, and manage the end-of-life of, postconsumer architectural paint, as provided. Existing law prohibits a manufacturer or retailer from selling or offering for sale architectural paint

Attachment C  
Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste. in the state unless the manufacturer is in compliance with the program. Existing law requires the stewardship organization to pay to CalRecycle quarterly administrative fees to cover CalRecycle's full administrative and enforcement costs of the program, as provided. Existing law authorizes CalRecycle to impose a civil penalty on any person in violation of the program, as specified. Existing law requires CalRecycle to adopt regulations to implement the program. Existing law establishes the Architectural Paint Stewardship Account and the Architectural Paint Stewardship Penalty Subaccount in the Integrated Waste Management Fund for the deposit of fees and civil penalties, respectively, imposed pursuant to the program and makes moneys in the account and subaccount available upon appropriation by the Legislature for purposes of the program. This bill would revise and recast the architectural paint recovery program as the paint product recovery program. The bill would expand the scope of the stewardship program from architectural paint to paint products, and thereby subject paint products to the requirements of the program. The bill would define "paint product" to mean architectural coatings, aerosol coating products, nonindustrial coatings, and coating-related products, as provided. The bill would exempt aerosol coating products, coating-related products, and nonindustrial coatings added to the stewardship program by the bill from the requirements of the program until January 1, 2028, or the approved stewardship plan's implementation date for those products, whichever occurs sooner, as specified. Among other changes, the bill would require a manufacturer, individually or through a stewardship organization, to review its plan at least every 5 years after approval by CalRecycle and determine whether amendments to the plan are necessary. The bill would rename the account for the deposit of fees the Paint Product Stewardship Account and would rename the subaccount for the deposit of civil penalties the Paint Product Stewardship Penalty Subaccount. The bill would make conforming changes. The bill would require all reports and records stewardship plans, annual reports, and other submissions to CalRecycle required pursuant to the requirements of the program to be signed under penalty of perjury. By expanding the scope of the crime of perjury, the bill would impose a state-mandated local program.

(2) Existing constitutional provisions require that a statute that limits the right of access to the meetings of public bodies or the writings of public officials and agencies be adopted with findings demonstrating the interest protected by the limitation and the need for protecting that interest. This bill would make legislative findings to that effect.

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement. This bill would provide that no reimbursement is required by this act for a specified reason. Active Bill – In Floor Process

**SB 1066**, as amended, Blakespear. Hazardous waste: marine flares: manufacturer responsibility.

(1) Under existing law, as part of the hazardous waste control laws, the Department of Toxic Substances Control (DTSC) generally regulates the management and handling of hazardous waste and hazardous materials. Except as specified, a violation of the hazardous waste control laws is a crime. This bill would create a producer responsibility program for marine flares. The bill would define "covered product" to include certain pyrotechnic devices that meet the criteria for household hazardous waste and that are used in conjunction with recreational activities. The bill would require a manufacturer of a covered product to develop and implement a manufacturer responsibility plan for the collection, transportation, and the safe and proper management of covered products, as specified. The bill would establish a process and timeline for DTSC to review and approve, disapprove, or conditionally approve a plan and for the implementation of an approved plan. The bill would require that an approved plan be published on DTSC's internet

Attachment C  
Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste. website, except for specified manufacturer data that would not be open to public inspection. The bill would prohibit DTSC from adopting regulations to implement the act with an effective date earlier than July 1, 2028. This bill would require a manufacturer to prepare and submit to DTSC and make publicly available an annual report describing the activities carried out pursuant to the plan. The bill would require the annual report to include an application for renewal of the manufacturer's responsibility plan. The bill would require all reports and records provided to DTSC pursuant to the act to be provided under the penalty of perjury. By expanding the scope of a crime, the bill would impose a state-mandated local program. This bill would require a manufacturer to pay DTSC the actual cost for DTSC to review its plan, annual report, and application to renew. The bill would establish the Marine Flare Recovery Fund in the State Treasury and would require the charges collected by DTSC to be deposited into that account for expenditure by DTSC, upon appropriation by the Legislature, to cover DTSC's cost to implement and enforce the act. This bill would prohibit a *manufacturer*, retailer, dealer, importer, or distributor from selling, distributing, offering for sale, or importing a covered product in or into the state that contains perchlorate. By adding new requirements to the hazardous waste control laws, this bill would expand the scope of a crime and would impose a state-mandated local program.

(2) Existing constitutional provisions require that a statute that limits the right of access to the meetings of public bodies or the writings of public officials and agencies be adopted with findings demonstrating the interest protected by the limitation and the need for protecting that interest. This bill would make legislative findings to that effect.

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement. This bill would provide that no reimbursement is required by this act for a specified reason. Active Bill - In Floor Process

### **Grant Programs**

**SB 367**, as amended, Seyarto. Farm, ranch, and public lands cleanup and abatement: grant program.

Existing law establishes the Farm and Ranch Solid Waste Cleanup and Abatement Grant Program, administered by the Department of Resources Recycling and Recovery, to award grants to public entities, defined as cities, counties, or resource conservation districts, and Native American tribes for purposes of cleaning up and abating the effects of solid waste that is illegally disposed of on farm or ranch property. Existing law creates the Farm and Ranch Solid Waste Cleanup and Abatement Account in the General Fund to include money appropriated from specified revenue sources, including tire recycling and used oil recycling fees, and authorizes the department to expend the money in the account for the grant program upon appropriation by the Legislature in the annual Budget Act. *This bill would rename the grant program the Farm, Ranch, and Public Lands Solid Waste Cleanup and Abatement Grant Program and extend its purposes to cleaning up and abating the effects of solid waste that is illegally disposed of on public lands owned by the state or federal government. The bill would create the Public Lands Solid Waste Cleanup and Abatement Account in the General Fund and would authorize the department to expend the moneys in the account for these extended grant program purposes upon appropriation by the Legislature in the annual Budget Act.* Active Bill - In Committee Process

### **Landfill Regulation and Implementation**

**SB 1208**, as amended, Padilla. Waste discharge permits: landfills.

Under existing law, the State Water Resources Control Board and the 9 California regional water

Attachment C  
Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste. quality control boards regulate water quality and prescribe waste discharge requirements in accordance with the Porter-Cologne Water Quality Control Act and the federal national pollutant discharge elimination system permit program established by the federal Clean Water Act. The California Integrated Waste Management Act of 1989 prohibits a regional water board from issuing a waste discharge permit for a new landfill, or a lateral expansion of an existing landfill, that is used for the disposal of nonhazardous solid waste if the land has been primarily used at any time for the mining or excavation of gravel or sand, as specified. The act defines “landfill used for the disposal of nonhazardous solid waste” as a disposal site regulated by a regional water board as a Class III landfill, as provided. This bill would additionally prohibit a regional water board from issuing a waste discharge permit for a new landfill that is used for the disposal of nonhazardous solid waste if the land is located within the Tijuana River National Estuarine Research Reserve or within an area that is tributary to the Tijuana River, except as provided. *The bill would also expand the definition of “landfill used for the disposal of nonhazardous solid waste” to also include a disposal site regulated by a regional water board as a Class II landfill, as provided.* The bill would state that its provisions are severable. Active Bill – In Floor Process.

**SB 972**, as amended, Min. Methane emissions: organic waste: landfills.

Existing law requires the State Air Resources Board to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state and to achieve a reduction in specified emissions, including methane, as provided. Existing law requires the methane reduction goals to include a 75% reduction target from the 2014 level by 2025. Existing law requires the Department of Resources Recycling and Recovery, in consultation with the state board, to adopt regulations, as provided, that achieve the targets for reducing organic waste in landfills. *This bill would require the department to provide procedures for local jurisdictions to request technical assistance regarding organic waste and methane reduction requirements from the department, to post those procedures on its internet website, and to provide that technical assistance, as specified.* Active Bill – In Floor Process.

### **Procurement/Biomass Conversion**

**AB 2514**, as amended, Aguiar-Curry. Solid waste: organic waste: diversion: hydrogen: biomethane.

(1) The California Integrated Waste Management Act of 1989 generally regulates solid waste disposal, management, and recycling. The act requires each city, county, and regional agency to develop a source reduction and recycling element of an integrated waste management plan. The act requires that element to include a 50% solid waste diversion requirement, as specified, and provides that up to 10% may be achieved through biomass conversion under certain conditions, with biomass conversion defined as the production of heat, fuels, or electricity by certain means from specified materials. One of the conditions for using biomass conversion to satisfy a portion of the solid waste diversion requirement is that pyrolysis not be included in the source reduction and recycling element. Pyrolysis is not defined for that purpose or for other purposes in the act. *This bill would define pyrolysis as the thermal decomposition of material at elevated temperatures in the absence or near absence of oxygen.*

(2) Existing law requires the Department of Resources Recycling and Recovery, in consultation with the State Air Resources Board, to adopt regulations, as specified, to achieve the reduction in the organic waste disposed of in landfills. The department’s regulations provide for, among other things, the calculation by the department of recovered organic waste product procurement targets for each local jurisdiction and a list of eligible recovered organic waste products for purposes of the procurement targets. *This bill would require the department, no later than January 1, 2026, to*

Attachment C  
Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste. *amend those regulations to include, as a recovered organic waste product attributable to a local jurisdiction's procurement target, hydrogen and pipeline biomethane converted exclusively from source separated diverted organic waste, organic waste that is separated from other waste, as specified.*

(3) Existing law requires the department, upon appropriation by the Legislature, to administer a grant program to provide financial assistance to promote in-state development of infrastructure, food waste prevention, or other projects to reduce organic waste, sort and aggregate or process organic and other recyclable materials into new, value-added products, or divert items from disposal through enhanced reuse opportunities, as provided. This bill would, until January 1, 2030, make the Town of Windsor and the Windsor Water District eligible for that grant program for purposes of a biosolids handling project. This bill would make legislative findings and declarations as to the necessity of a special statute for the Town of Windsor and the Windsor Water District. This bill would incorporate additional changes to Section 42652.5 of the Public Resources Code proposed by AB 2346 and AB 2902 to be operative only if this bill and any or all of the other bills are enacted and this bill is enacted last. Active Bill – In Floor Process.

### **Reuse/Refill Mandate**

**SB 1280**, as amended, Laird. Waste management: propane cylinders: reusable or refillable. Existing law, the California Integrated Waste Management Act of 1989, establishes the Department of Resources Recycling and Recovery and requires the department to adopt rules and regulations, as necessary, to carry out the act. *This bill would, on and after January 1, 2028, prohibit the sale or offer for sale of propane cylinders other than those propane cylinders that are reusable or refillable, as defined.* The bill would require the department to adopt regulations to implement the provisions of this bill with an effective date of January 1, 2028. Active Bill – In Floor Process.

### **Solar Panels**

**AB 1238**, as amended, Ward. Hazardous waste: solar panels.

(1) Under existing law, the purpose of the Electronic Waste Recycling Act of 2003 is to create a comprehensive and innovative system for the reuse, recycling, and proper and legal disposal of covered electronic devices, as defined, and provide incentives to design electronic devices that are less toxic, more recyclable, and that use recycled materials. Under existing law, both the Department of Resources Recycling and Recovery (CalRecycle) and the Department of Toxic Substances Control (DTSC) administer the act and may adopt regulations to implement and enforce the act. The act requires a retailer selling a covered electronic device in this state to collect from a consumer at the time of retail sale a covered electronic waste recycling fee or covered battery-embedded waste recycling fee, as specified. The act defines “covered electronic device” to mean certain video display devices and battery-embedded products. The act requires all funds collected pursuant to the act to be deposited into subaccounts of the Electronic Waste Recovery and Recycling Account. The act continuously appropriates the funds in the subaccounts for specified purposes, including, but not limited to, paying covered electronic waste recycling fee refunds and making electronic waste recovery and recycling payments. Existing law incorporates the act into the hazardous waste control laws, and a violation of the hazardous waste control laws is a crime. This bill, among other things, would add consumer-owned solar photovoltaic modules to the definition of covered electronic devices, thereby subjecting consumer-owned solar photovoltaic modules to the act, as specified. The bill, on and after January 1, 2030, would require a consumer or a service provider serving the consumer, including a developer or installer of a consumer-owned solar photovoltaic system, to pay a consumer-owned solar photovoltaic module

Attachment C  
Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste. recycling fee in an amount determined by CalRecycle, as provided, upon the purchase of new consumer-owned solar photovoltaic modules. The bill would require a retailer selling a consumer-owned solar photovoltaic module to collect a consumer-owned solar photovoltaic module recycling fee, as specified. The bill would require all funds collected from the consumer-owned solar photovoltaic module recycling fee to be deposited into the Consumer-Owned Solar Photovoltaic Module Recycling Fee Subaccount, which the bill would establish within the Electronic Waste Recovery and Recycling Account. The bill would continuously appropriate the funds in the subaccount for specified purposes, including, but not limited to, paying refunds of the consumer-owned solar photovoltaic module recycling fee. The bill would authorize CalRecycle to adjust the consumer-owned solar photovoltaic module recycling fee to, among other things, ensure sufficient funding for the collection, consolidation, and recycling of covered electronic waste resulting from solar photovoltaic modules and the resulting solar photovoltaic module e-waste that is projected to be recycled in the state. This bill would require CalRecycle, and would authorize DTSC, to adopt regulations to implement the provisions of the act related to consumer-owned solar photovoltaic modules. The bill would prohibit CalRecycle's regulations implementing the provisions of the act related to consumer-owned solar photovoltaic modules from having an effective date earlier than January 1, 2029. By expanding the scope of a crime, this bill would create a state-mandated local program.

(2) Existing law establishes stewardship programs for certain products, whereby a manufacturer, importer, distributor, or retailer is required, by itself or with others, to establish a stewardship organization that is required to develop and implement a plan for collecting and properly managing the disposal of covered products, as provided. This bill would establish a stewardship program for solar photovoltaic modules that are not included in the definition of consumer-owned solar photovoltaic module, and therefore, would not be regulated by the provisions above. The bill would require CalRecycle to adopt regulations to implement the stewardship program and would prohibit the regulations from having an effective date earlier than January 1, 2029. The bill would define "steward" to mean the person responsible for decommissioning of a solar photovoltaic module, as specified. The bill would require a steward, by itself or with other stewards in a stewardship organization, to submit a stewardship plan to CalRecycle within 12 months of the adoption of the regulations. The bill would specify requirements for the plan, including, but not limited to, describing how the solar photovoltaic modules will be collected, refurbished, reused, or recycled. The bill would require a steward, by itself or with other stewards in a stewardship organization, to pay for the implementation of its stewardship plan and to pay an administrative fee at an amount that is the actual and reasonable costs adequate to cover CalRecycle's and any other state agency's projected full costs of administering and enforcing the stewardship program. The bill would require the administrative fees to be deposited into the Nonconsumer-Owned Solar Photovoltaic Module Recycling Subaccount, which this bill would establish. The bill would require, upon appropriation by the Legislature, moneys in the subaccount to be expended by CalRecycle or any other agency that assists in administering the stewardship program, as specified. The bill would require a steward and a stewardship organization to retain certain documents, allow CalRecycle to inspect documents and facilities, and to perform audits, as specified. The bill would require all reports and records that a steward or stewardship organization submits to CalRecycle pursuant to the stewardship program to be submitted under the penalty of perjury. By expanding the scope of a crime, this bill would create a state-mandated local program. This bill would include a change in state statute that would result in a taxpayer paying a higher tax within the meaning of Section 3 of Article XIII A of the California Constitution, and thus would require for passage the approval of  $\frac{2}{3}$  of the membership of each house of the Legislature. The California Constitution

Attachment C  
Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste. requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement. This bill would provide that no reimbursement is required by this act for a specified reason. Existing constitutional provisions require that a statute that limits the right of access to the meetings of public bodies or the writings of public officials and agencies be adopted with findings demonstrating the interest protected by the limitation and the need for protecting that interest. This bill would make legislative findings to that effect. The bill would include findings that changes proposed by this bill address a matter of statewide concern rather than a municipal affair and, therefore, apply to all cities, including charter cities. Active Bill – In Committee Process

**AB 2**, as amended, Ward. Recycling: solar photovoltaic modules.

The Electronic Waste Recycling Act of 2003 (act) requires a retailer selling a covered electronic device in this state to collect from a consumer at the time of retail sale a covered electronic waste recycling fee or a covered battery-embedded waste recycling fee, as specified. The act defines “covered electronic device” to include certain video display devices and battery-embedded products. The act requires all charges collected pursuant to the act to be deposited into specified subaccounts within the Electronic Waste Recovery and Recycling Account, and outlines certain other requirements related to the establishment, adjustment, and administration of the charge. Moneys in the subaccounts are continuously appropriated for specified purposes, including, but not limited to, paying covered electronic waste recycling fee refunds and making electronic waste recovery and recycling payments. Moneys in the account may be expended, upon appropriation by the Legislature in the annual Budget Act, for other specified purposes, including the administration of the act by the Department of Resources Recycling and Recovery (CalRecycle) and the Department of Toxic Substances Control (DTSC) and to provide funding to DTSC to implement and enforce the hazardous waste control laws as they relate to covered electronic devices.

Existing law incorporates the requirements and other provisions of the act by reference as requirements and provisions of the hazardous waste control laws. The act also expressly authorizes DTSC to enforce the act, and all regulations adopted pursuant to the act, through the hazardous waste control laws. A violation of the hazardous waste control laws is a crime. *This bill would, among other things, expand the definition of “covered electronic device” to include a “customer-owned solar PV module,” as defined, thereby expanding the scope of the act to include covered solar photovoltaic (PV) module products, for limited purposes, as provided. The bill would also require, on or before October 1, 2026, and on or before October 1 each year thereafter, CalRecycle to establish a covered solar PV recycling fee based on the reasonable regulatory costs to administer covered electronic waste recycling. The bill would require the charge to be imposed upon a consumer or a service provider serving the consumer for the purchase of a new or refurbished covered solar PV module product. The bill would also require the charge to be adjusted annually based on the California Consumer Price Index. The bill would create the Covered Solar PV Module Recycling Fee Subaccount as a continuously appropriated fund in the Electronic Waste Recovery and Recycling Account. Because the funds deposited to the Covered Solar PV Module Recycling Fee Subaccount would be a new source of funds in the continuously appropriated subaccount within the continuously appropriated Electronic Waste Recovery and Recycling Account, the bill would make an appropriation.* By expanding the scope of the act to make it applicable to covered solar PV module products, the bill would expand the scope of a crime, thereby imposing a state-mandated local program. Beginning January 1, 2028, the bill would require a solar photovoltaic module, that is not a customer-owned solar PV module, to be included in a plan that describes how the module will be managed at the end of its useful life, who is

Attachment C  
Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste. responsible for managing it, and how it will be recycled, refurbished, or reused. Active Bill - In Committee Process, Placed on suspense file

**Waste Reduction and Recycling**

**SB 1426**, as amended, Blakespear. Waste reduction: undiverted materials.

The California Integrated Waste Management Act of 1989, administered by the Department of Resources Recycling and Recovery, generally regulates the disposal, management, and recycling of solid waste, as defined. Existing law authorizes each county, city, district, or other local governmental agency to determine aspects of solid waste handling that are of local concern and whether the services are to be provided by means of nonexclusive franchise, contract, license, permit, or otherwise. The act requires a city, county, or city and county, or regional agency formed under the act, to develop a source reduction and recycling element of an integrated waste management plan containing specified components. The act requires those jurisdictions to divert 50% of the solid waste subject to the element, except as specified, through source reduction, recycling, and composting activities. *This bill would prohibit an exclusive franchise, contract, license, or permit to provide services for diversion from exceeding the services required to be performed and actually performed under the exclusive authorization. The bill would require a person who provides services for diversion by means other than a franchise, contract, license, or permit, to comply with applicable law, as specified. The bill would, if certain programs are not offered through a local ordinance or a local jurisdiction's franchise agreement, authorize other persons to collect, transport, and process undiscarded organic material from nonresidential customers, as specified. The bill would include findings that changes proposed by this bill address a matter of statewide concern rather than a municipal affair and, therefore, apply to all cities, including charter cities.* Active Bill - Failed Passage in Committee, Do pass as amended, but first amend, and re-refer to the Committee on Local Government.

**SB 1306**, as amended, Skinner. Recycling: precious metals and critical minerals: report.

Existing law establishes in the California Environmental Protection Agency the Department of Resources Recycling and Recovery, which administers various solid waste management and recycling programs. *This bill would require the Department of Resources Recycling and Recovery to draft and submit a report to the Legislature on or before January 1, 2027, relating to the in-state collection, recycling, reuse, and stockpiling for domestic consumption of precious metals, critical minerals, as defined, and other similar valuable materials as reasonably decided by the department, contained within products in the state, as specified.* The bill would require the department to provide opportunities for public input and to perform outreach to potentially interested parties, as specified. Active Bill - In Committee Process, Placed on suspense file.

**SB 551**, as amended, Portantino. Beverage containers: recycling.

The California Beverage Container Recycling and Litter Reduction Act requires plastic beverage containers sold by a beverage manufacturer, as specified, to contain a specified average percentage of postconsumer recycled plastic per year. The act requires the manufacturer of a beverage sold in a plastic beverage container subject to the California Redemption Value to report to the Department of Resources Recycling and Recovery certain information about the amounts of virgin plastic and postconsumer recycled plastic used for plastic beverage containers subject to the California Redemption Value for sale in the state in the previous calendar year. Existing law provides that a violation of the act or a regulation adopted pursuant to the act is a crime. This bill would authorize certain beverage manufacturers to submit with other beverage

## Attachment C

### Legislative Update – August 28, 2024

Bills relating to waste management, recycling, and hazardous materials and waste. manufacturers a consolidated report, in lieu of individual reports, that identifies the postconsumer recycled plastic content for beverage containers and the amounts of virgin plastic and postconsumer recycled plastic used in beverage containers, as specified. The bill would require the consolidated report to be submitted under penalty of perjury and pursuant to standardized forms prescribed by the department. The bill would authorize the department to adopt regulations to implement the bill's provisions, as specified. Because these provisions would expand the scope of a crime and would create a new perjury crime, the bill would impose a state-mandated local program. Active Bill - In Committee Process