

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)



Hybrid Meeting Information:

Zoom Meeting Link: <https://us02web.zoom.us/j/89872583090>

Meeting ID: 898 7258 3090

One tap mobile

+16694449171,,89872583090# US

+16699006833,,89872583090# US (San Jose)

Meeting ID: 898 7258 3090

Find your local number: <https://us02web.zoom.us/j/89872583090>

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 Stolzenhaler (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 (Environmental 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 .
- 4) **Approve February 8, 2024 Meeting Minutes:** W. Smith made a motion to approve the February 8th meeting minutes. J. Guth seconded. Guth, O'Malley, Smith, and Stolzenhaler voted to approve, none

opposed. Brown, Gomez, and Nelson, who were not present for the February 8th 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.
- 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).
 - Ms. Padilla informed those sworn that they will receive a certification form via DocuSign that must be completed to confirm their oath.

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 14th through August 23rd 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)
 - 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 25th 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).
 - 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

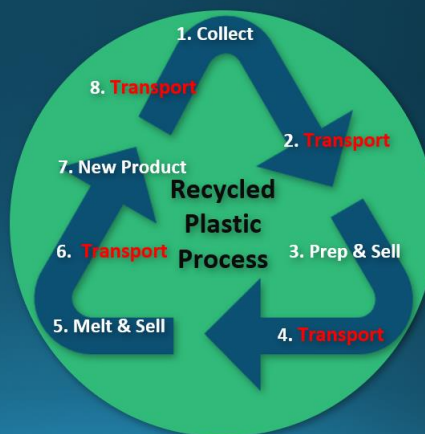


Plastic waste collected over 9 weeks from Main Beach, Santa Cruz, Ca

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:

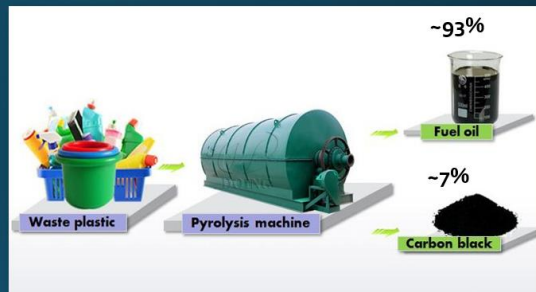
Preliminary Emissions Data - Criteria Pollutants			
Criteria Pollutant	Process Burner, tons/yr	Oxidizer, tons/yr	Total, tons/yr
Particulate Matter (PM)	0.013	0.184	0.197
Sulfur Dioxide (SO ₂)	0.001	0.254	0.254
Oxides of Nitrogen (NO _x)	0.413	0.442	0.856
Carbon Monoxide (CO)	0.238	0.042	0.281
Carbon Dioxide (CO ₂)	397	206	603.514
Nitrous Oxide (N ₂ O)	0.029	0.015	0.043
Methane (CH ₄)	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 ³)	NOG Energy Content (BTU/ft ³)	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
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Kevin DeWhitt
Founder / CEO
PDO Technologies
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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; caps, jars, trays, clamshells	Common products: milk jugs, detergent & shampoo bottles, flower pots, grocery bags	Common products: pipes, shower, automotive product bottles, flooring	Common products: linen bags, paper towels & tissue overwrap, aqueous bottles, trash bags, six-pack rings	Common products: yogurt tubs, caps, straw, hangers, sand & shipping bags	Common products: to-go containers & flatware, hot caps, razors, CD cases, shipping cushion, carlons, 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, blockers, 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?

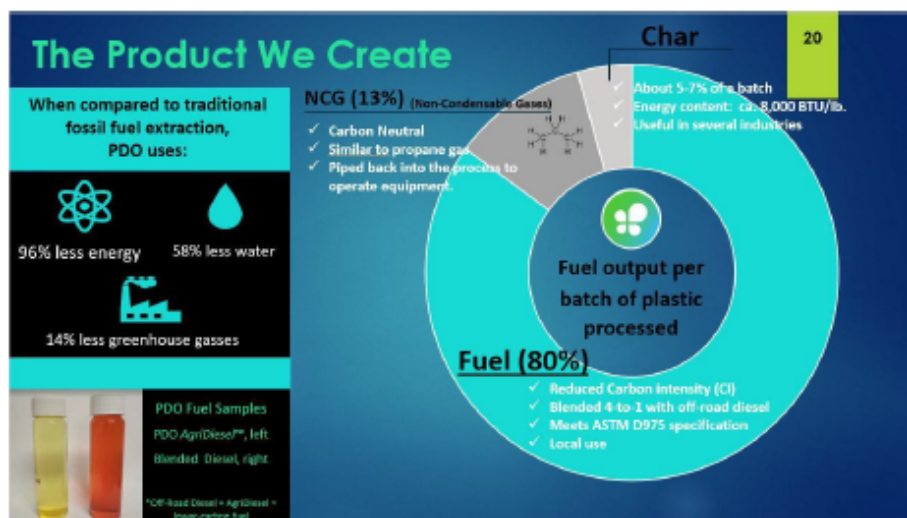
Depending on the input, the output is a varying percentage of three “products”: diesel-sized molecules, gasoline-sized molecules, and wax-sized molecules. The slide below concentrates on fuel (only diesel and gas-sized molecules) as a product, but the whole, unseparated product (gas+diesel+wax) is currently 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.



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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

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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

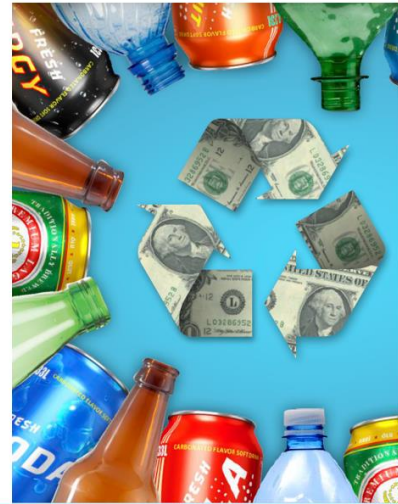
Five-Year Review Report for the Regional Agency Integrated Waste Management Plan

- 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.



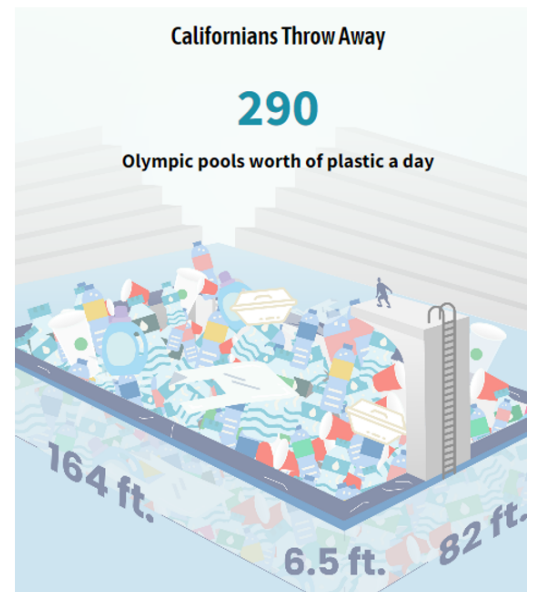
SB 54: Plastic Pollution Prevention and Packaging Producer Responsibility Act

- 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.

