



**California's Statewide Commission**  
on  
**Recycling Markets and Curbside Recycling**  
**Policy Recommendations Report 4**  
**June 30, 2022**

## Executive Summary

The Legislature and Governor created California's Statewide Commission on Recycling Markets and Curbside Recycling to provide advice to CalRecycle, the Legislature, and other State or Federal agencies as appropriate regarding the state's ambitious recycling and organic materials recovery goals from the perspective of professionals working in many aspects of this complicated industry.

In 2019, Governor Newsom signed into law The California Recycling Market Development Act ([AB 1583](#), Eggman, Chapter 690, Statutes of 2019). Public Resources Code Section 42005.5 requires CalRecycle to convene by July 1, 2020, a [Statewide Commission on Recycling Markets and Curbside Recycling](#) consisting of representatives of public agencies, private solid waste enterprises, and environmental organizations that have expertise in recycling.

In 2020, Governor Newsom signed into law [AB 2287](#) (Eggman, Chapter 281, Statutes of 2020), which requires the commission to issue preliminary recommendations on or before January 1, 2021, and to issue policy recommendations and identify products that are recyclable or compostable and regularly collected in curbside recycling programs by July 1, 2021. The bill also requires the commission to provide an opportunity for the public to review and provide comment before finalizing a recommendation or identifying a product described above and authorizes the commission to share the recommendations and identifications with the Legislature or any state or federal agency. The Commission met these requirements with [Report #2](#).

Working by consensus, the proposals that follow are the policy recommendations that this Commission unanimously adopted in the first 24 months since formation. The 32 policy recommendations contained in this fourth report are those which have had partial implementation or which remain unaddressed.

The policy proposals focus on actions to:

1. Reduce the risk of fire and other hazards in discarded materials and associated risks to workers and communities,
2. Eliminate some packaging that impedes recycling,
3. Reconfigure recycling market development efforts to improve effectiveness, and
4. Take steps to ensure that materials separated for recovery will not be processed in a manner that contradicts the environmental and social intent of recovery efforts.

Some of this work involves reconciling the conflicts between ambitious recovery goals and the realities of markets and permitting processes. The ability to expand in-state organic materials and recycling infrastructure, capacity and jobs is limited by the time needed to work through regional planning, siting and permitting processes as well as being impacted by economic factors such as the price of energy and the cost of land.

The ability to recover materials separated for composting or recycling depends on producing clean organic materials and recyclables that have real markets. We recognize that some of our recommendations - such as ending the exports of plastics in violation of the Basel

Convention - will likely result in temporary increases in California's measured disposal but we cannot legitimately call it a "market" if we cannot confirm the material is recycled. We seek to restore the public trust that when items are correctly placed in a recycling or composting bin that those materials are recovered in a responsible manner.

Additionally, the public needs to be able to trust their government. When they are told that after a deposit is collected they will get it back, they should be able to count on that promise being kept. We need to make recycling truthful and easy. Correctly separating discard materials for recovery is more complicated than it should be. People, especially after the pandemic are very stressed, and recycling should not be stressful. The State is now poised to pass SB 1013 to expand the bottle bill to include wine and spirits yet, the budget subcommittee did not approve CalRecycle's budget request to expand redemption into recycling deserts. The Commission makes no comment on the good or bad of the CalRecycle proposal specifics except to say that the expansion of the Bottle Bill program should absolutely be concurrent with fixing the problem of closed redemption centers that have left recycling deserts. If we are increasing the deposits taken from the public, we should also ensure everyone has access to convenient redemption centers.

Support from CalRecycle staff made many of the Commission's challenges more manageable, including posting meeting agendas and related documents, getting Fair Political Practices Commission (FPPC) approval on Oct. 7th to be exempt from the requirement to file a Form 700 Statement of Economic Interest to the FPPC. The combination of the voluntary nature of the Commission and CalRecycle having no budget for related support limited the capacities of the Commission.

We appreciate that the Legislature has taken our recommendations seriously and [passed several bills in 2021 that addressed our policies](#).

Thank you again for the opportunity to provide these policy recommendations, and we trust that they will prove valuable to the State as we each continue to do our part to improve resource conservation and recovery of discards in ways that are beneficial to the state's economy, all residents, and the environment. We are confident that these policy proposals are ready to enter the policy arena for consideration.

## Commissioners

Governor Newsom established the California's Statewide Commission on Recycling Markets and Curbside Recycling by signing the California Recycling Market Development Act (AB 1583, Eggman, Chapter 690, Statutes of 2019) into law. This Act established this appointed commission, composed of volunteer representatives of public agencies, private solid waste enterprises, and environmental organizations that have expertise in recycling. At the first meeting in June 2020, the commissioners elected officers. The Commissioners are:

<u>Commissioner</u>	<u>Affiliation</u>
John Bouchard	Teamsters 350, Principal Officer
Deborah Cadena	County of Kern, Public Works
John Davis	Mojave Desert and Mountain Recycling Authority, Administrator
Jan Dell	The Last Beach Cleanup, Founder
Jeff Donlevy	Ming's Recycling, General Manager
Laura Ferrante	Waste Alternatives, Owner
Joseph Kalpakoff	Mid Valley Disposal, CEO
Nick Lapis	Californians Against Waste, Director of Advocacy
Manuel Medrano	City of Chula Vista, Environmental Services Manager
Alex Oseguera	WM, Director of Government Affairs
Heidi Sanborn, Chair	National Stewardship Action Council
Ann Schneider	City of Millbrae, Mayor
Coby Skye	Los Angeles County Public Works, Assistant Deputy Director
Sara Toyoda	City of Indio, Environmental Programs Coordinator
Tedd Ward	Del Norte Solid Waste Management Authority, Director
Eric Potashner	Recology, Senior Director of Strategic Affairs (resigned 4/20/21)
Richard Valle, Vice-Chair (resigned 6-2-22)	Tri-CED Community Recycling, CEO

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## A. Statewide Commission's Advice

This report is the California's Recycling Commission's collective advice on ways to move closer to the high environmental goals set by the Legislature for the people and communities of California. As a group of committed professionals familiar with the challenges and constraints of safely operating municipal collection, recycling, composting, and processing discarded materials for recovery and disposal, we have volunteered significant time to this Commission with the heartfelt intent that we can and must do more to reduce waste generation and increase recycling and composting in California.

Serving without compensation and for many thousands of hours over the two years we have met, we have been asked to make recommendations about how California could:

- Build in-state recycling and composting capacity at faster than practical realities of permitting processes in California will allow,
- Reach the ambitious and unmet recycling rate of 75% by 2020, considering that CalRecycle reports that the 2019 recycling rate is only 37%, and
- Clarify what is 'recyclable' and 'compostable' though that decision has significant impacts on local programs and businesses with products that either meet or do not meet those definitions. - **Completed in 2021**

The legislation creating this Commission also assigned us the following tasks:

- 1. Recommend policies to help CalRecycle meet the state's policy goals**
  - i. Not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020
  - ii. The department shall not establish or enforce a diversion rate on a city or county that is greater than the 50 percent diversion rate
- 2. Recommend policies to help CalRecycle meet the market development goals:**
  - i. Increase market demand for post-consumer waste materials
  - ii. Increase demand for recycled content products
  - iii. Promote systems that yield high quality feedstocks
  - iv. Promote competitive collection and use of secondary waste materials
- 3. Recommend policies to help CalRecycle meet the methane emission reduction goals to reduce organic materials disposed in landfills, including:**
  - i. 50 percent reduction in disposed organic materials from 2014 levels by 2020
  - ii. 75 percent reduction in disposed organic materials from 2014 levels by 2025
  - iii. Recovery of 20 percent of edible food disposed from 2014 levels by 2025
- 4. Identify products that are recyclable or compostable, and regularly collected in curbside recycling programs. - Addressed under Policies 20-15 and 20-19**
- 5. Provide regular feedback to CalRecycle on public messaging designed to encourage proper recycling and minimize contamination in curbside recycling programs.**

We knew addressing these complicated issues would take time. We have given as much as anyone could have asked of a volunteer Commission and hope that our investment in crafting these policy proposals will continue to be met with the same enthusiasm with which we offer them.

This report provides a deeper dive into the Circular Economy model – what it is and what it means for California. Governor Gavin Newsom included significant financial investments to move California towards a Circular Economy in the California budget for fiscal years 2021-22.

Several Commissioners raised concerns regarding use of the term ‘circular economy,’ due to a lack of clear understanding of what this term means. There are no state laws defining a circular economy, and some entities have co-opted this term. Nonetheless in 2022, the European Commission developed a [Circular Economy Action Plan](#), and it is worth considering how such ideas might be adapted for California’s benefit.

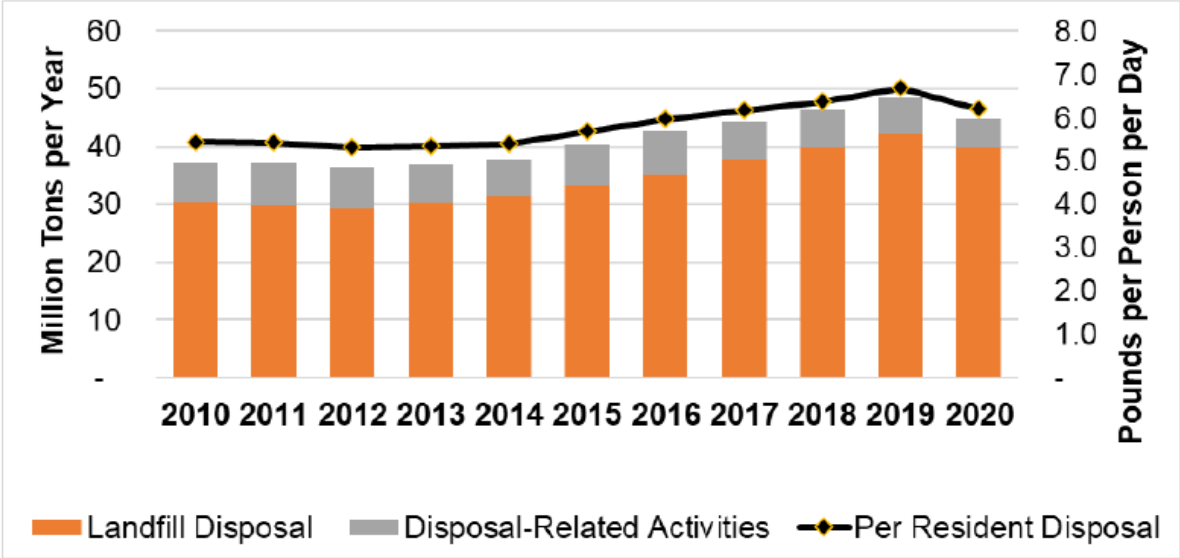
## California Aimed for a 75% Source Reduction, Recycling and Composting Rate in 2020, Achieved 42%

In 2012, the California Legislature declared under AB 341 (Chesbro) that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter. The graphs that follow demonstrate that while [California’s communities have made great strides in recycling in some respects over the years](#), a 75% recovery rate was not achieved in 2020.

The next few charts from [CalRecycle’s 2020 State of recycling and disposal](#) demonstrate progress amidst challenging trends. Since 2013, disposal has been increasing, and the recycling rate (which includes source reduction and composting) is decreasing. It is noteworthy that the disposal per person decreased in 2020.

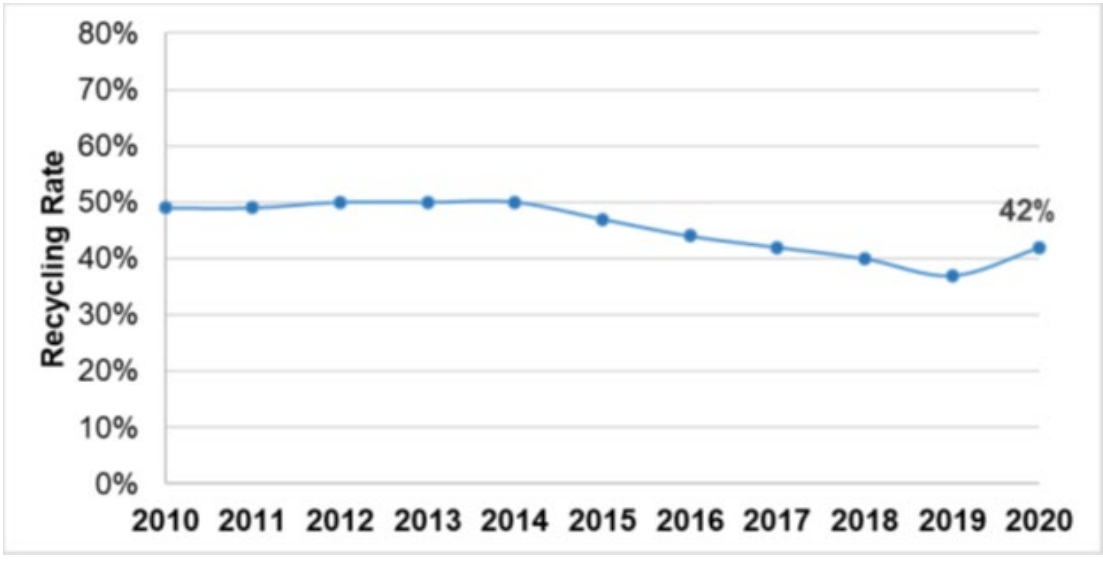
*“CalRecycle estimates that California’s overall waste generation in 2020 was about 77.4 million tons. Of that total waste generation, 44.9 million tons went to disposal and disposal-related activities, including about 40 million tons sent to landfill. This equates to a statewide per capita disposal rate of 6.2 pounds per person per day. Alternative daily cover was the most common disposal-related activity at about 2.8 million tons.*”

**Figure 2. California’s Statewide Per Resident and Total Disposal from 2010 to 2020**



The left y-axis represents tons of disposal per year as shown by the bar graphs. The right y-axis represents the number of pounds of disposal per resident per day as shown by the black line. Data is from RDRS with population from the California Department of Finance (5). Accessed May and August 2021.

An estimated 32.6 million tons of waste were recycled or diverted in California in 2020, resulting in a statewide recycling rate of 42 percent, up from 37 percent in 2019 but lower than the peak of 50 percent in 2014. Seaborne export of recyclable materials accounted for about 13.2 million tons in 2020, a decrease of approximately 1.2 million tons from 2019. Despite the decrease, seaborne exports of recyclable materials were the largest destination for statewide recycling”

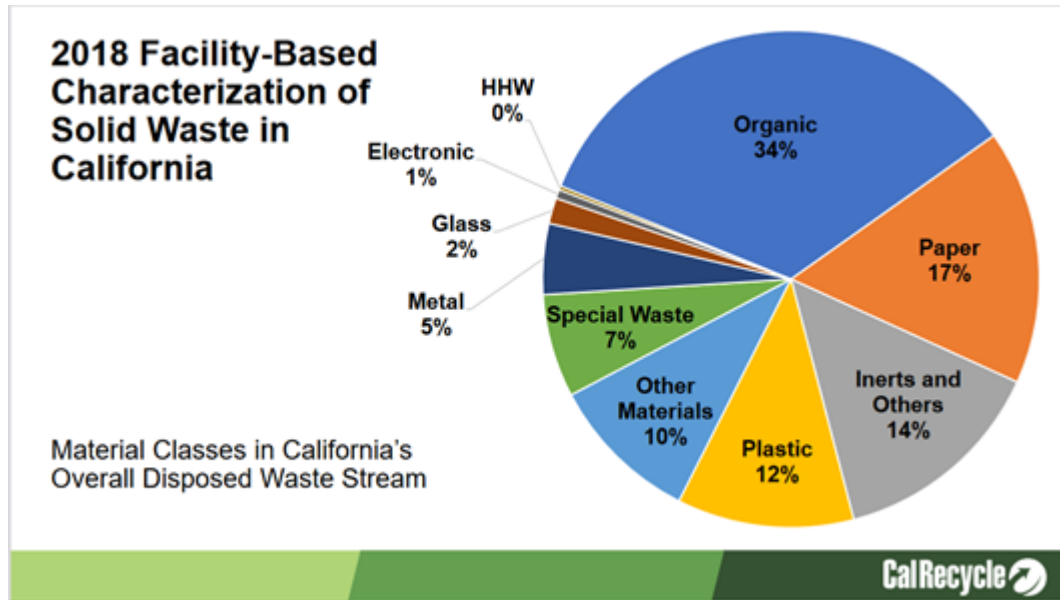


Source: CalRecycle, State of Disposal and Recycling in California for Calendar Year 2020



Despite decreased exports of contaminated recyclable materials, the overall recycling rate also increased last year. While this 42% recycling rate in 2020 represents tremendous personal and community efforts to recover materials - and 2020's increase is encouraging - we are only slightly better than halfway towards meeting California's 75% target.

The chart that follows shows that a significant portion of those materials being disposed are organic, which generates methane during decomposition, a potent greenhouse gas.



Source: 2018 Facility-Based Waste Characterization of Solid Waste in California

### How did we get here?

Under the California Integrated Waste Management Act of 1989 (AB939), cities and counties were made responsible for supporting recycling and composting programs that would cut the amount of material disposed of in half. Most governments partnered with collection and processing companies and met that goal by expanding residential recycling and yard debris collections. Cities and counties formed joint powers authorities or created new departments or hired contractors to increase recycling and organic materials recovery. Such community efforts across California dramatically expanded the tonnage of material collected and processed for recycling or composting. While these programs initially reduced disposal tonnages, over time disposal has continued to increase. Neither local nor state funding has been available to sustain recovery programs during even moderate economic hardship.

California's materials recovery and processing infrastructure has been developed in response to legislation, and each new evolution builds on the infrastructure in place at that time. Prior to the Bottle Bill (AB2020, 1986), recycling was initiated by community-based non-profits which often recycled only a few materials, or which combined reuse and recycling operations. When the Bottle Bill was established – in part to reduce roadside litter associated

with beverage containers – those nonprofits were often associated with those first buy-back programs.

California has implemented several different recovery programs using different funding mechanisms. The bottle bill and motor oil programs established a deposit incentive system for the consumers to return their beverage containers or used motor oil to a redemption location to get the deposits back. Unredeemed deposits fund additional support programs related to beverage container, litter collection, and used oil collection and recycling programs. Electronic devices, tires, and mattress programs establish an advanced recycling fee to help fund recycling collection and infrastructure programs for those materials.

When AB 939 made local governments responsible for source reduction and recycling programs, local governments and collections contractors increasingly became the community recyclers and household hazardous waste program providers. Multi-material buy-back centers have been gradually replaced by more widespread California Redemption Value (CRV)-focused redemption centers. Currently, curbside collection programs are commonplace. Conversely, due to several factors including funding support, the number of bottle-bill buyback centers has fallen by over a third since 2013\* leaving many communities with buy-back deserts at a time when the public needs their deposits back more than ever. California had 2,578 bottle bill buy back centers in 2013 and a redemption rate of 85%. As of June 2022, the state has 1,264 bottle bill buy back centers with a redemption rate of 59%. (\*CalRecycle Annual Data Sheets as of June 2022)

California has required product stewardship or Extended Producer Responsibility programs for specific products, including paints, stains and architectural coatings, carpet, mercury thermostats, mattresses, sharps and pharmaceuticals. Each program is administered by a different stewardship organization overseen by CalRecycle, under rules defined by the enabling legislation.

California has made efforts to increase demand for recycled products through the State Agencies Buy Recycled Campaign (SABRC) and the Recycled Content Product Manufacturer's Directory. State procurement guidelines create a natural starting point for determining what is recyclable and compostable and are emulated by local governments in their buy recycled and compost procurement programs. Such programs can drive markets if the State purchases products that align with the policy goals, such as those with high post-consumer recycled content, no toxics, or which have a producer funded and operated take-back program, etc.

Investing in the State's recycling system will stimulate the economy and provide good jobs; however, funding is needed to make this happen. The State is facing a lack of focus on source reduction and design for recycling, which has led to a recycling crisis with a need for robust demand for materials that are collected, sorted and recycled. Following China's 'Green Fence' (2009-2010) and 'National Sword' (2018) international standards prohibited the importation of contaminated bales of recyclables and set new more stringent inspection requirements. In response to these standards, recycling facilities were pressed to expend more effort to recover a lower volume of clean material that ultimately has a lower commodity value. As a result, more material is being disposed of than recycled. This directly relates to the lack of robust U.S. markets and of the closure of 1,214 recycling centers in California since 2013.

Reducing Short-Lived Climate Pollutants (SLCP) is a priority for the State, which led to the establishment of targets to reduce organic waste disposal and methane emissions generated by organic waste in landfills. However, California lacks enough infrastructure to meet those targets. CalRecycle notes in their analysis of the progress toward the SB 1383 waste reduction goals dated August 18, 2020 that approximately 27 million tons of organic material will need to be redirected from landfills by 2025 to meet the SB 1383 reduction goal. Organic material makes upwards of [two-thirds of California's waste stream](#), including edible food which could be recovered for human consumption and organic materials that will need to be processed at compost, anaerobic digestion (AD), chip-and-grind, or other organic waste processing facilities.

CalRecycle estimates that the total cost to implement the statewide organic waste regulations established pursuant to SB 1383, [even with significant source reduction, will require approximately 30 to 100 new or expanded facilities across the state to handle millions of tons of organic material, which in turn will require nearly \\$40 billion in investments over the next decade, including a capital investment of nearly \\$4 billion to develop infrastructure](#) .

Developing local infrastructure and domestic markets for recycled materials benefits the environment and the State's economy and is critical due to low contamination limits of foreign markets. Achieving California's ambitious source reduction, recycling and climate change goals requires partnerships and commitments from the state, local governments, the waste and recycling industry, and recycling and organic waste project developers. Expanding producer responsibility and investments, as well as state support for recovery programs are all needed to create good jobs and a working recovery system.

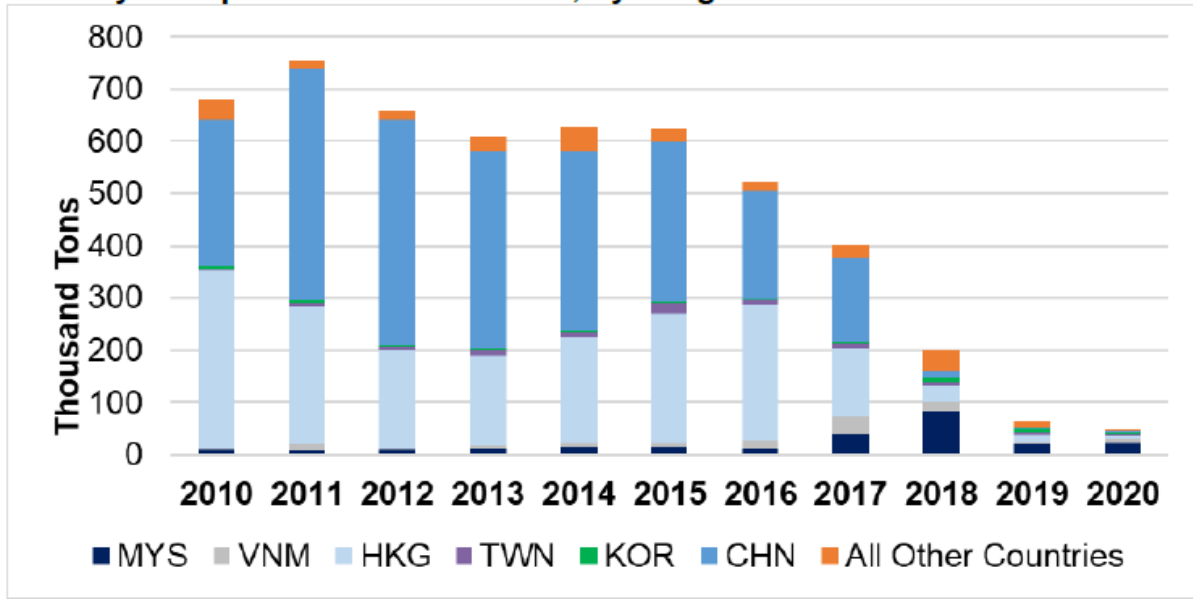
The Legislative Analyst's Office has consistently reported, most recently in 2016, that funding for recycling and organic waste management is the most cost-effective method for reducing greenhouse gas (GHG) emissions – [as low as \\$4 per ton of GHG emissions](#) – while having the co-benefits of reducing other air pollutants and short lived climate pollutants, creating green jobs, and bringing other improvements. Billions of dollars are needed to place the state on a trajectory to meet its aggressive, yet critically needed climate goals. The Legislature has allocated over \$200 million in funding to promote circular economy initiatives, including grants and loans related to organics management. While encouraging, these resources fall billions of dollars short of what will be required, meaning that collections rate increases are anticipated in many California communities.

## International Actions to Control Exports and Mixed Material Recycling

Though this Commission's focus is on California's policies and programs, international efforts through the United Nations and the European Union address many of the same concerns related to discards such as the UN's expansion of the Basel conventions addressing the export of mixed plastics. In recent years, international market demand has dramatically changed for materials exported for recycling. In large part due to the changes associated

with the Basel conventions, mixed plastics exports have dramatically decreased, as shown in the following table.

**Figure 21. Seaborne Exports of Mixed Plastics 3 through 7 from California by Country of Import from 2010 to 2020, by Weight**



Source: CalRecycle, State of Disposal and Recycling in California for Calendar Year 2020

### Legislative Actions

The tables on the following pages summarize the legislative initiatives on topics addressed by Commission proposals since the Commission was formed in July 2020. Chaptered bills of legislation are now law. Active bills have not completed the legislative process.

Commission Policy	Related Bill Number(s)	Have Recommendations Been Addressed as of July 2022
<p><b><u>Policy 20-01:</u></b>  <b>Extending Producer Responsibilities Framework for Household Hazardous Waste (HHW)</b></p>	<p>AB 707 (Quirk, 2021) (Chaptered)            SB 244 (Archuleta, 2021) (Vetoed)            SB 289 (Newman, 2021) (Not Passed)</p> <p>AB 2208 (Kalra, 2022) (Active)            AB 2440 (Irwin, 2022) (Active)            AB 2787 (Quirk, 2022) (Active)            AB 2886 (Lee, 2022) (Active)            SB 502 (Allen, 2021) (Active)            SB 983 (Eggman, 2022) (Not Passed)            SB 1215 (Newman, 2022) (Active)</p>	<p>EPR for Mercury Thermostats</p>
<p><b><u>Policy 20-02:</u></b>  <b>Transition from Single-Use Propane Cylinders to Refillable</b></p>	<p>SB 1256 (Wieckowski, 2022) (Active)</p>	
<p><b><u>Combined Policies 20-03/04:</u></b>  <b>Precautionary Principle &amp; Problem Products</b></p>	<p>AB 652 (Friedman, 2021) (Chaptered)            AB 1200 (Ting, 2021) (Chaptered)            AB 1371 (Friedman, 2021) (Not Passed)</p> <p>AB 1690 (Rivas, 2022) (Inactive)            AB 1817 (Ting, 2022) (Active)            AB 2026 (Friedman, 2022) (Active)            AB 2208 (Kalra, 2022) (Active)            AB 2784 (Ting, 2022) (Active)            AB 2787 (Quirk, 2022) (Active)            SB 502 (Allen, 2021) (Active)            SB 1046 (Eggman, 2022) (Active)            SB 1232 (Allen, 2022) (Active)</p>	<p>Prohibits PFAS for juvenile products and food packaging</p>
<p><b><u>Policy 20-05:</u></b>  <b>State Agency Buy Recycled Campaign</b></p>	<p>AB 683 (Grayson, 2021) (Not Passed)            AB 661 (Bennett, 2021) (Active)</p>	<p>Requires a state agency, if fitness and quality are equal, to purchase recycled products instead of non-recycled products, without regard to cost.</p>
<p><b><u>Policy 20-06:</u></b>  <b>Recycling Market Development Zone Loan Program</b></p>	<p>SB 155 (Budget Trailer)(Chaptered)            SB 170 (Skinner)(Chaptered)</p>	<p>RMDZ loan fund received \$50 million general fund infusion; loan limitations were relaxed</p>
<p><b><u>Policy 20-07:</u></b>  <b>Consolidated Permit Process Utilization and Enhancement</b></p>		

Commission Policy	Related Bill Number(s)	Have Recommendations Been Addressed as of July 2022
<u>Policy 20-08:</u> Governor's Office of Business and Economic Development (GO-Biz) Enhanced Role		CalRecycle's new Office of Innovation combines its market development efforts with "Go-Biz"
<u>Policy 20-09:</u> CalRecycle Market Development Focus		The new Office of Innovation in Market Development and Remanufacturing will recruit and support businesses developing green technologies to re-use, recycle, and re-manufacture products.
<u>Policy 20-10:</u> Controls on Plastic Waste Exports	AB 881 (Gonzalez, 2021) (Chaptered) AJR 4 (Garcia, 2021) (Chaptered)	Allows diversion credits only for exported waste destined for separate recycling urges President to sign on to Basel Convention
<u>Policy 20-11:</u> Carpet Stewardship and Flooring		
<u>Policy 20-12:</u> Food Recovery Policies	AB 125 (Rivas, 2021) (Not Passed) AB 734 (Garcia, 2021) (Not Passed)	
<u>Policy 20-13:</u> Right to Repair	SB 605 (Eggman, 2021) (Not Passed) SB 983 (Eggman, 2022) (Not Passed)	Consumer Warranty Protection: Express Warranties
<u>Policy 20-14:</u> Beverage Container Recycling, Changes to the Bottle Bill and Support CalRecycle AB 54 Report	AB 1067 (Ting, 2021) (Active)  AB 1454 (Bloom, 2021) (Active) SB 38 (Wieckowski, 2021) (Active) SB 451 (Dodd, 2021) (Active) SB 895 (Laird, 2022) (Active)	
<u>Policy 20-15:</u> What is Recyclable?	No legislation is required to publish the Commission's initial list	Yes under SB 343
<u>Policy 20-16:</u> Design for Recyclability - Plastic Container Labels and Shrink Sleeves	SB 343 (Allen, 2021) (Chaptered) AB 1201 (Ting, 2021) (Chaptered)  AB 2026 (Friedman, 2022) (Active)	Prohibits packaging from including the "chasing arrows" or other recyclability claims unless approved by CalRecycle  Sets standards; prompts CalRecycle to produce a list of commonly recycled items.

<b>Commission Policy</b>	<b>Related Bill Number(s)</b>	<b>Have Recommendations Been Addressed as of July 2022</b>
<b><u>Policy 20-17:</u> Design for Recyclability - Beverage Containers</b>	<b>SB 451 (Dodd, 2021) (Active)</b>	
<b><u>Policy 20-18:</u> Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling</b>	<b>AB 1371 (Friedman, 2021) (Died)</b>	
<b><u>Policy 20-19:</u> Compostable Products Certification and Approval for Composting or Anaerobic Digestion</b>	<b>AB 1201 (Ting, 2021) (Chaptered) SB 1232 (Allen, 2022) (Active)</b>	
<b><u>21-20:</u> Letter to the Legislature 2/3/21 on Urgency Changes to Bottle Bill</b>	<b>SB 895 (Laird, 2022) (Active)</b>	
<b><u>Policy 21-21:</u> Correct Counter Productive Incentives</b>	<b>SB 38 (Wieckowski, 2021) (Active) SB 54 (Allen, 2021) (Active) SB 983 (Eggman, 2022) (Died)</b>	
<b><u>Policy 21-22:</u> Adding Returnable Bottles To the Bottle Bill</b>	<b>AB 962 (Kamlager, 2021) (Chaptered) AB 1311 (Wood, 2021) (Chaptered)</b>	<b>Clarifies that reusable beverage containers can be included in the Bottle Bill;  Makes “bag drop recycling ” and other convenient ways to recycle.</b>
<b><u>Policy 21-23:</u> Redefine Reusable Food Service Packaging</b>		
<b><u>Policy 21-24:</u> Producer Responsibility for Market Development</b>	<b>AB 2784 (Ting, 2022) (Active) SB 38 (Wieckowski, 2021) (Active) SB 54 (Allen, 2021) (Active) SB 502 (Allen, 2021) (Active)</b>	
<b><u>Policy 21-25:</u> Fiber products recycled content requirements</b>	<b>AB 2784 (Ting, 2022) (Active) SB 1046 (Eggman, 2022) (Active)</b>	
<b><u>Policy 21-27:</u> Recovering Resources from Mixed C&amp;D Debris</b>		

Commission Policy	Related Bill Number(s)	Have Recommendations Been Addressed as of July 2022
<p><b><u>Policy 21-28:</u></b>  <b>Renewable Technology / Organic Discards to Energy Infrastructure and Market Development</b></p>	<p>AB 322 (Salas, 2021) (Chaptered)            SB 45 (Portantino, 2021) (Active)            AB 2674 (Villapudua) (Active)            SB 1075 (Skinner, 2022) (Active)            SB 1187 (Kamlager, 2022) (Active)</p>	<p>Energy Commission to consider funding eligible biomass conversion projects</p>
<p><b><u>Policy 21-29:</u></b>  <b>Carbon Farming</b></p>		
<p><b><u>Policy 21-30:</u></b>  <b>Label System for Products and Post-Consumer Management</b></p>	<p>AB 818 (Bloom, 2021) (Chaptered)            AB 1201 (Ting, 2021) (Chaptered)            SB 343 (Allen, 2021) (Chaptered)            SB 502 (Allen, 2021) (Active)</p>	
<p><b><u>Policy 21-31:</u></b>  <b>CalRecycle Outreach to Prevent Contamination and Reduce Waste</b></p>		
<p><b><u>Policy 21-32:</u></b>  <b>Glass Containers – Wine &amp; Spirits Collection System</b></p>	<p>AB 2779 (Irwin, 2022) (Active)            SB 1013 (Atkins, 2022) (Active)</p>	
<p><b><u>Policy 21-33:</u></b>  <b>Composting GHG Emission Reductions</b></p>		
<p><b><u>Policy 21-34:</u></b>  <b>Request for Enforcement of Labeling Laws re. Plastic Bags &amp; Film</b></p>		



## CalRecycle Actions

The legislation that established this Commission does not address any potential response from CalRecycle regarding advisory proposals. CalRecycle was not given staff or funding to support the Commission in the original bill language so such support work is added to their already full plate. CalRecycle has continued to express their support for the Commission's work and Director Rachel Machi-Waggoner addressed the Commission on several occasions, as did Cal-EPA Director Jared Blumenfeld.

Support from CalRecycle staff made many of the Commission's challenges more manageable, including posting meeting agendas and related documents, getting Fair Political Practices Commission (FPPC) approval on Oct. 7th to be exempt from the requirement to file a Form 700 Statement of Economic Interest to the FPPC. The combination of the voluntary nature of the Commission and CalRecycle having no budget for related support limited the capacities of the Commission.

The table at the end of this report summarizes how CalRecycle programs have been shaped by legislation related to Commission proposals, or are under consideration as California takes steps toward a circular economy.

## Governor's Office Actions

The 2021-22 Budget appropriated \$130 million over two years as part of a \$270 million two year package to support a circular economy. The funds appropriated in this item are available for encumbrance or expenditure until June 30, 2024. These funds will support the implementation of goals to reduce short-lived climate pollutants, including advancing organic waste infrastructure, edible food recovery, and composting opportunities; and supporting other non-organic recycling opportunities.

The Governor's office has proposed expansion of California's movement towards a circular economy and organics infrastructure in the 2022-2023 State budget.

## Why Favor a Circular Economy?

Economies decide what gets produced, how those things get produced and distributed, and who gets the benefits. Economies also require flows of materials, energy, and information – with money playing a central role in that flow of information. We already face the very real environmental challenges already associated with the established linear economy. Marking Earth Day 2022, United Nations Secretary-General António Guterres said "Today, the Earth is facing a triple planetary crisis. Climate disruption. Nature and biodiversity loss. Pollution and waste."

Rather than 'efficiently' depleting natural resources while delivering products and waste as a linear economy does, a circular economy strives to build economic, natural and social wealth – which economists call capital.

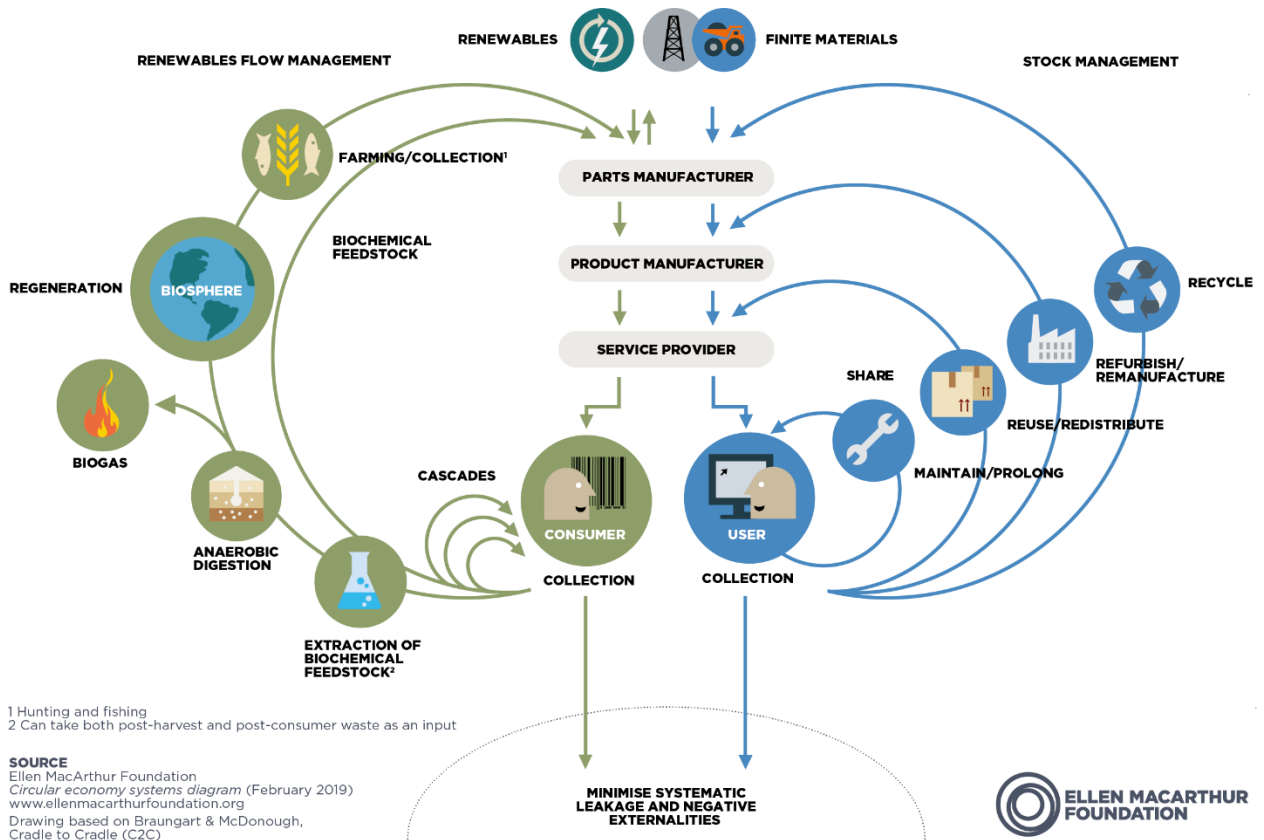
## B. Moving Towards a Circular Economy

The European Parliament defines a circular economy as “a [model of production and consumption](#), which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the **life cycle of products is extended.**” The Circular Economy has also been [described](#) this way:

***“Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles:***

- 1. Design out waste and pollution;***
- 2. Keep products and materials in use; and,***
- 3. Regenerate natural systems.”***

A Circular Economy (as depicted in the following diagram) relies upon a clear separation of technical materials – indicated by the blue loops on the right - and the biological materials shown in the green loops on the left. The right side of the diagram refers to 'finite materials' – including metals, plastics, natural gas, and chemicals – as materials that need to be kept in circulation through reuse, repair and recycling. The left side are materials that are grown from the earth and returned to the earth in renewable material flows. The core of both of those circular systems is that any mingling of technical and biological materials must be kept to a minimum, as separation of technical and biological material is required to recover either.



To emphasize how this Commission's work supports moving California towards a Circular Economy, this report uses those three principals in the pages that follow as a structure for the presentation of our policy recommendations. Proposals are numbered based on the year each was first adopted, and the sequence of adoption. Each of these principles is important, though the Commission's recommendations on how to restore natural systems are limited to applications of processed organic materials.

## 1. Design out waste and pollution

Most Commission proposals suggest ways California could better foster an economy that designs out waste and pollution. The policy proposals that follow are presented according to shared objectives, such as ways California's economy could better support recovery enterprises, or quickly address known flammable or explosive hazards within discard streams.

## a. Put Out the Fires

The Commission perceives an urgent need for legislation that will swiftly eliminate known explosive and flammable hazards from all discard streams. We all agree that safe collection and processing depends on managing discards that do not ignite or explode, yet the number and diversity of products posing such hazards is increasing rapidly.

**Swift legislative action is needed to clearly extend producer responsibilities for end-of-life management for products that are hazardous or have been implicated in causing fires.** These first two proposals recommend systematically reducing known fire hazards in discarded materials. Further, we recommend that CalRecycle be authorized to select HHW products for extending producer responsibilities beyond the sale through end-of-life management, a policy approach known as Extended Producer Responsibility (EPR).

California needs reliable mechanisms to reduce fire hazards in our discards, support extending producer responsibilities for hazardous materials and technical materials with challenging market demand, and eliminate hazardous single-use products when proven reusables and refillable alternatives exist.

### [20-01 Extending Producer Responsibilities Framework for Household Hazardous Waste](#)

### [21-24 Producer Responsibility for Market Development](#)

### [20-02 Transition from Single-use Propane Cylinders to Refillable](#)

## b. Level the Playing Field for Source Reduction, Recycling and Composting without Adding New Problems

Historical subsidies for virgin material extraction have far outpaced support for waste prevention, recovery and recycling. The first step to design out waste and pollution is to reduce or eliminate subsidies that result in overproduced and undervalued durable materials, and to prevent the introduction of new materials that prevent composting or recycling.

### [21-21 Correct Counterproductive Incentives](#)

### [20-03/04 Precautionary Principle](#)

### c. Move Towards a Circular Economy

California can also help progress towards a Circular Economy by re-orienting outreach, monitoring and enforcement efforts to reduce the introduction of contaminants to recycling and composting streams, and by supporting international efforts to develop a comprehensive approach to limiting pollution from single-use items including plastics.

#### [21-31 CalRecycle Outreach to Prevent Contamination and Reduce Waste](#)

### d. Lead By Example

The Commission is charged with issuing policy recommendations to meet the state's market development goals ([Public Resources Code 42005\(b\)](#)), specifically:

- Increase market demand for post-consumer waste materials
- Increase demand for recycled content products
- Promote systems that yield high quality feedstocks
- Promote competitive collection and use of secondary waste materials.

[SB 1066 \(Sher\)](#) was enacted in 1997, finding and declaring that:

- Market development is the key to increased, cost-effective recycling. Market development includes activities that strengthen demand by manufacturers and end-use consumers for recyclable materials collected by municipalities, nonprofit organizations, and private entities.
- Developing markets for recyclable materials creates opportunities that will re-industrialize California.

The four market development goals were adopted in SB 1066 following a 1993 California Integrated Waste Management Board Report "Meeting the Challenge: A Market Development Plan for California." The report itself was required by AB 939, which called for biennial reports to the legislature including "specific market development strategies and a schedule of proposed market development activities to properly sequence market expansion to prevent an oversupply of recovered material."

California's Recycling Market Development Zone program was authorized by SB 1066, which also created the Recycling Market Development Revolving Loan Subaccount. The Commission's Recommendations include [20-06 Recycling Market Development Zone Loan Program](#) and [20-09 CalRecycle Market Development Focus](#) intended to reorient CalRecycle's focus to in-state market development opportunities in response to changing conditions, especially unpredictable export conditions that disrupted materials flows for California recyclers.

SB 155 (2021) removed some of the RMDZ loan limitations, and included an infusion of general fund money and a requirement that “Priority for funding shall be given to projects for circular recycling programs that result in the product being recycled into a product that is also recyclable, as determined by the department, or that has a minimum lifespan of 10 or more years.”

CalRecycle created an Office of Innovation in Market Development and Remanufacturing combining current market development efforts with the Governor’s Office of Business and Economic Development or “Go-Biz” to recruit and support businesses developing green technologies to re-use, recycle, and re-manufacture products.



[CalRecycle's Office of Innovation Attracts and Support Recycling and Remanufacturing](#)

SB 155 also authorized and provided initial funding for grants to:

- Improve and optimize technology and infrastructure for the collection, processing, recycling, and remanufacturing of waste in California.
- Achieve technological advancement and infrastructure improvements to make progress toward achieving the state’s statutory climate, source reduction, reuse, and recycling goals.
- Result in a portfolio of projects that are strategically focused to advance the development of a circular economy.
- Eligible projects include:
- Feasibility studies for siting and permitting recycling facilities in a manner and location that minimizes air and water quality impacts, especially for the surrounding communities.

- Innovative solutions for organics collection, organics processing, and food waste prevention and recovery.
- Pilot and demonstration projects for new recycling technologies to determine feasibility on a larger scale, including the use of recycled materials. Projects involving plastics shall be limited to resin types that are currently widely collected and processed in California.
- The Department of Resources Recycling and Recovery shall give priority to projects for circular recycling programs that result in the product being recycled into a product that is also recyclable as determined by the department, or has a minimum lifespan of 10 or more years.

The production of fuels or energy through transformation, engineered municipal solid waste conversion, or other disposal activities are not eligible for this funding.

CalRecycle and the Department of General Services are charged with increasing State procurement of recycled content products, a program covered by the Commission's recommendation [Policy 20-05: State Agency Buy Recycled Campaign.](#)

Recycling market development is the interface between private investment and public incentives. Investment risk reflects the degree to which material supplies are sustained or increased; likely demand for recovered feedstocks; costs to permit, construct and operate compared to alternative locations.

CalRecycle, the Governor's office, California's programs fostering development of recovery markets, and the State Agency Buy Recycled Campaign each have roles they can play in showing the way to move towards a Circular Economy.

[20-08 Governor's Office of Business and Economic Development \(GO-Biz\) Enhanced Role](#)

[20-07 Consolidated Permit Process Utilization and Enhancement](#)

[20-09 CalRecycle Market Development Focus](#)

[20-06 Recycling Market Development Zone Loan Program Policy](#)

[20-05 State Agency Buy Recycled Campaign](#)

[21-23 Redefine Reusable Food Service Packaging](#)

#### e. [Assure Technical Materials Are Recyclable](#)

A key element to designing out waste and pollution is finding ways to encourage and maintain separation of technical and biological or bio-supportive materials.

Design – the choices of what a product or package is made from and the information thereon - is taught in response to perceived market conditions.

As required by the [Public Resources Code section 42005.5](#), the Commission is charged with identifying products that are recyclable and compostable and regularly collected in California curbside recycling programs.

The recommendation is that the State of California identifies a single Statewide Standardized Acceptance List of Recyclable Materials (CA Statewide Recyclable List) for California recycling collection programs. This List would identify and allow products and material with types and forms of material meeting the criteria listed in [PRC 42370.2](#) to be marketed and labeled as “recyclable” when sold in California and to use the “chasing arrows” recycling symbol.

The purpose of this policy is to ensure that recycling collection programs collect types and forms of products and material that will actually be recycled through existing and new or expanded collection and material reprocessing facilities and will have sustainable markets. This policy gives all municipalities the ability to ‘reset’ their list of materials to be collected, emphasizing the need to create recycling programs rather than diversion programs, and to only accept materials that can be recycled or composted.

In addition to reducing contamination in the solid waste system, this proposal allows consumers to make informed purchasing decisions based on the recyclability of the items they purchase. The proposal will also send a signal upstream to manufacturers to choose recyclable packaging choices and to support California’s recycling markets by purchasing recycled material at sustainable prices.

Local programs are encouraged to accept only products and material types and forms that are separated into individual marketable grades, not requiring secondary sorting or separation, and reused as raw material for new products. This policy does not intend to prevent local jurisdictions or solid waste service providers from including additional products and material, not identified on the statewide list, in their recycling collection program.

The Commission proposes that manufacturers who wish to demonstrate that their product or material can become compliant with the recyclability requirement are provided a pathway to submit that information to CalRecycle for addition to the California’s Statewide Recyclable List.

The Commission used the data in the spreadsheet on the google documents titled [“California Recyclability Screening Survey”](#) to determine what is recyclable under Policy 20-15, which is not repeated here.

The recommendations below address the recyclability of technical materials.

[22-36 Designing for Recyclability](#)

[20-16 Design for Recyclability \(shrink sleeves\)](#)

[20-17 Design for Recyclability \(Beverage containers\)](#)



## 21-26 Hospitality Textile Recycling

### f. Keep Biological Materials Compostable and Clean

This Commission was tasked with identifying compostable products, which we did under Policy 20-19, addressing ways to clarify what is compostable. Understanding what is compostable and creating systems to reduce the introduction of non-compostable items to organics recovery streams will be of paramount concern as California expands its organics processing infrastructure in response to SB 1383. This policy is not repeated within this report, as CalRecycle is addressing those concerns through the implementation of [AB 1201 \(Ting\)](#).

## 2. Keep products and materials in use

To design out pollution also requires that products using technical materials be distributed with systems in place to recover and keep those materials in circulation. In the preceding Circular Economy diagram, the smallest loops are the most efficient and beneficial which suggest sharing products while keeping them in good repair. Product stewardship organizations can establish recovery loops for specific products.

### a. Rescue Food

For food and organic materials on the left, those cascades of small loops can include making soups and stews with leftovers, pickling and canning fruits, or gleaning and food collection and redistribution programs. Under SB 1383, Food Rescue and redistribution programs will be significantly expanded in the coming years.

## 20-12 Food Recovery Policies

### b. Prevent Waste

In 1989, [PRC Section 40051](#) established source reduction as the top priority strategy to achieve what would become the 75% recovery goals. [Section 40196 of the California Public Resources Code](#) defines source reduction as any action which causes a net reduction in the generation of solid waste. Finding ways to support and foster growth of businesses that prevent waste and keep goods in circulation will be essential to building a circular economy.

One form of waste prevention is support for the processes and businesses circulating technical materials through repair, salvage, and resale. This proposal addresses the basic requirements for maintaining the ability to repair small technical products.

[20-13 Right to Repair](#)

c. [Salvage & Recirculate](#)

Keeping materials in use requires that technical materials have recovery programs. A circular economy is not one filled with single-use products made of metal, plastic, or glass. These policies address how salvage processes can be used to recover construction and demolition materials, and how flooring recovery could be further enhanced under product stewardship.

[21-27 Recovering Resources from Mixed C&D Debris](#)

[20-11 Carpet Stewardship and Flooring](#)

d. [Fix the Bottle Bill for Communities & Glass Markets](#)

The closure of buyback redemption centers and lack of convenient redemption locations is an ongoing existential crisis for consumers and requires the urgent attention of the Administration and Legislature. With redemption centers closing at an alarming level, the trend is incompatible with efforts to expand recycling opportunities. More importantly, consumers are denied the return of their deposits that were taken from them, with the legislative commitment to return the deposits by the state providing a convenient system of redemption locations throughout the state. The consumers are charged a sales tax on the CRV deposits and the state receives over \$100 million annually in sales tax revenue, so the state is obligated to provide the convenient redemption system, otherwise, consumers are being double taxed for their beverage containers. These proposals represent the Commission's recommendations on ways the California Bottle Bill could be enhanced.

[21-20 Letter to the Legislature on Urgency Changes to Bottle Bill](#)

[20-14 Beverage Container Recycling, Changes to the Bottle Bill and Support CalRecycle AB 54 Report](#)

[21-32 Glass Containers – Wine & Spirits Collection System](#)

## **Discussions Without Consensus Policy on Thermoform Recycling**

In 2022, the Commissioners made substantial efforts to try to develop a consensus approach to thermoforms. Three two-person committees and a seven-member committee made efforts on a policy addressing thermoform container recycling. Concepts discussed included a minimum recycled content for thermoform containers sold in California; and that CalRecycle would use individual commingled rate studies based on shipped material for MRFs separating PET thermoform containers from bottles. The Commission has not reached a consensus on a policy addressing thermoform recycling.

### e. **Monitor Compost Quality & Biological End-Use Markets**

[The Integrated Waste Management Act of 1989 \(AB 939\)](#) established a hierarchy for management of discards: source reduction, followed by recycling or composting, and environmentally safe transformation/land disposal. Expansion of large-scale recyclable materials and organic materials recovery were elements of how communities statewide enacted programs to reduce landfilling - 25% diversion by 1995 and 50% by 2000.

In 2006, [AB 32](#) established a target to reduce greenhouse gas emissions to 40% below the 1990 level by 2030. Targeting methane, an especially potent greenhouse gas generated when food and organic materials decompose in landfills, in 2016 [Senate Bill \(SB\) 1383 \(Lara\)](#) Short-lived Climate Pollutants (SLCP): Organic Waste Reductions California called for a substantial shift in how discarded food and organic materials are to be managed:

- Reduce organic waste disposal 50% by 2020 and 75% by 2025.
- Rescue at least 20% of currently disposed surplus food for edible redistribution by 2025.

While both [AB 939](#) and [SB 1383](#) implementation flowed from legislation to CalRecycle to local governments, program requirements under SB 1383 regulations have become more comprehensive, detailed, and prescriptive, but without a clear funding source other than local ratepayers. CalRecycle, Regional Water Control Boards, Air Quality Management Districts, local planning agencies, and affected communities each have valid concerns about how these programs develop which will need to be addressed in each community.

In the first year of the Commission's efforts an Organics Committee identified what is compostable and regularly collected at curbside (under [Public Resources Code sections 42356](#) and [42370.2](#), and [Business and Professions Code section 17580](#)), and this work will continue. This task is also related to the Commission's activities "*promoting efficient local waste diversion systems which yield high quality, industrially usable feedstocks*" as called for by [PRC section 42005.b.3](#). Finished compost and soil amendments must be reliably free of contaminants so demand for these materials supports a system for continual collection and processing of discarded organic feedstocks.

An existential challenge to the viability of composting is the ubiquity of plastics which are not compostable - or which look virtually identical to compostable plastics. Contamination resulting from this confusion requires the costly ongoing removal of all such perhaps-compostable-plastic materials at nearly all organic materials processing facilities. The costs to remove these materials reduces the viability of California composting operations until this issue is better resolved.

Siting, permitting, funding, and construction of organic materials processing and recovery facilities are all contingent on market demand for the end products. Though the State Agency Buy Recycled Campaign and the procurement requirements under SB 1383 will help spur demand for finished materials, it will not be enough to assure financial viability for such facilities.

California's current organic waste recovery facilities do not have capacity to process the amount of material necessary to reach the 50% 2020 or 75% by 2025 goals, and when they do, the end-markets for finished compost products need to be as reliable as our current landfills. There will need to be new and expanded recovery facilities throughout the state.

At the same time there is a funding gap and capacity shortfall there are also extensive permitting challenges for new facilities. The time frame for permitting these facilities can take up to five years, and even longer. [AB 1045 \(2015\)](#) involved organic waste composting, requiring CalEPA, CalRecycle, the State Water Resources Control Board, State Air Resources Control Board, and Department of Food and Agriculture to create and implement policies that divert organic waste from landfills. Facility developers are facing the ironic situation of not being granted permits by Air Quality Management Districts, though the need for these facilities is driven by the need to control airborne emissions. Permitting requirements should take into consideration life cycle emissions reductions from diverting organic discards and not just new source emissions from projects, as organic waste processing facilities can be environmentally beneficial by reducing landfill gas emissions including methane, a potent greenhouse gas. The groundwork for agency coordination is already in place and desperately needs to be given a higher priority. When State agencies work together to coordinate permit requirements, development is able to move forward and the capacity gap can be reduced to help achieve the State's organic waste diversion and emission reduction goals, without such coordination meeting the State's goals in the current established timelines is unlikely. CalRecycle should facilitate discussions with other State agencies to ensure that coordination on permitting of new organic waste infrastructure is occurring.

To reach the 75% goal, 23 million additional tons of material will need to be collected and processed to a quality standard that will enable the material to be recycled or composted based on the estimated 80 million tons of waste generated in 2020, excluding alternative daily cover at landfills and most waste-to-energy. Based on the 2015 Ascent Environmental data, 86.1% of all organic material is potentially recoverable, so achieving the 75% goal is potentially attainable.

For California to successfully transform how organic discards are rescued, reduced, recovered, processed, and composted, we must also find ways to proactively address

emerging concerns, such as actions needed to assure that finished compost applications do not foster the spread of invasive species or microplastics.

[21-25 Fiber Products Recycled-Content Requirements Policy](#)

[21-33 Composting GHG Emission Reductions](#)

[20-07 Consolidated Permit Process Utilization and Enhancement](#)

f. [Make Labels Clear & Enforceable](#)

California is not meeting its recycling and circular economy goals due to a number of converging issues, including a lack of processing infrastructure, markets, consistent programs, and funding. Contamination of what is placed in the recycling or organic waste bin exacerbates all of these issues. Many packages, containers, and products are labeled recyclable or compostable when in fact they are not recyclable or compostable in California. Many Californians still improperly dispose of various items in the wrong collection bin and place hazardous waste in collection bins when it requires separate and safe collection programs. Contamination is further caused by confusing/outdated recyclable or compostable labels on the materials and confusing information from municipal and/or contract haulers on what to dispose and what to recycle or compost.

The label system policies were developed by the Commission's Labeling and Media Committee in 2021 to cooperation with CalRecycle's [Office of Public Affairs \(OPA\)](#) and engage in the roll-out of their public education campaign. This engagement included presentations to the Commission and labeling committee by OPA and their contractor, ActionResearch, on the ongoing development of a Community-Based Social Marketing (CBSM) campaign. Commissioners were invited and participated in a survey to further help develop the campaign. CBSM is an effective 5-step outcome-based process that originates in the social sciences and focuses on the biggest opportunities to achieve desired behaviors. The process includes prioritizing behavior(s), identifying barriers, developing strategies, pilot testing, and then implementing broadly and evaluating.

The most challenging goal was to develop and propose an overarching framework for a statewide labeling system for products, acceptance lists, and bins.

An easily understood, user-friendly, and consistent messaging and labeling system is essential for California to achieve its recycling, composting, and circular economy goals. The Label System for Products and Post-Consumer Management policy recommendation is a simple, no nonsense, user-friendly proposal that will help Californians and California get back on track with recycling and composting. This policy recommendation creates a statewide system for labeling products and curbside bins to drastically reduce contamination cost-effectively. It clarifies

appropriate product labeling to stop the worst and most costly types of curbside recycling and composting contaminants.

Policy recommendation for this label system supports mandates such as [PRC 41780.01](#), the state's policy goals “that not less than 75% of solid waste generated be source reduced, recycled, or composted” and works in tandem with the CalRecycle on sustainable packaging as determined by [Senate Bill 1335 \(Allen\) Sustainable Packaging for the State of California Act of 2019](#).

#### [21-30 Label System for Products and Post-Consumer Management](#)

The policies below address plastic film, which is among the most common contaminants of both recycling and composting streams.

#### [21-34 Request for Enforcement of Labeling Laws re. Plastic Bags & Film](#)

#### [20-18 Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling](#)

### g. Clarify Range of Acceptable Organics Recovery Technologies

Recognizing the need to expand developing markets for processing and recovering organic materials to achieve AB 341 (2011), SB 32 (2016), and SB 1383 (2016) goals and targets, the Commission adopted Policy 21-28, which recommends boosting funding and taking other steps to accelerate the development of collection, diversion, and processing infrastructure for organic materials.

#### [21-28 Renewable Technology / Organic Discards to Energy Infrastructure and Market Development](#)

#### **Discussions Without Consensus Policy on ‘Other Proposed Technologies’**

For the past two years, a number of constituents have communicated with the Commission requesting that the role of novel technologies be considered in processing residual waste. Such technologies have sometimes been referred to as conversion technologies or chemical recycling. A 2-person committee was assigned to compile those comments, and developed a draft Framework based on stakeholder input. However, over 320 comments were received from stakeholders, raising concerns regarding the potential impacts of such technologies, and the Commission agreed to table further discussion of such policies.

### **3. Regenerate natural systems**

Preventing the degradation of natural systems and improving degraded environments is one of the three key pillars to achieving a circular economy.

Finished compost and other products from biological/organic materials processing can be used to support and regenerate areas where soils have been degraded. The potential reduction in greenhouse gasses associated with compost production and use should be considered as assets during required environmental reviews.

[21-29 Carbon Farming](#)

## C. Commission Structure and Process

### Two-Person Committees

The July 2021 Commission report describes the formation and organization of Committees in the development of the first two reports. As of June 2022, the following two-person Committees had been assigned topic areas for policy proposals:

<b><u>Commissioners</u></b>		<b><u>Topic Areas</u></b>
Sanborn	Toyoda	Construction and Demolition for Market Dev't
Davis	Sanborn	Thermoforms I
Skye	Oseguera	Organic Materials Renewable Technology
Ward	Schneider	Waste Prevention, Single-Use Plastics & Artificial Turf
Valle	Ward	Bottle Bill Issues
Toyoda	Lapis	Liaison with Oregon DEQ
Davis	Sanborn	Carpet and Flooring
Davis	Ward	Right to Repair
Cadena	Davis	Methane Emission Reductions
Sanborn	Ward	HHW / HHW Container ID & EPR
Davis	Donlevy	Glass Packaging
Davis	Donlevy	Thermoforms 2
Oseguera	Davis	Thermoforms 3
Dell	Schneider	Food Grade Packaging
Valle	Oseguera	Charter Update
Skye	Lapis	Food Waste Prevention and Rescue + Exports & Precautionary Principle
Kalpakoff	Toyoda	Organics Contamination
Oseguera	Kalpakoff	Organic Materials Infrastructure & Procurement
Skye	Sanborn	Design for Recycling
Ward	Skye	Report Structure
Medrano	Schneider	Paper Personal Care Products
Ward	Sanborn	Reusable Ink Jet Cartridges



## Challenges and Opportunities in the First Two Years

Though this Commission is advisory, according to CalRecycle we are required to operate within legal constraints on its communications and process including the [Bagley-Keene public meeting laws](#). Meetings of two or more Commissioners discussing Commission-related topics need to be publicly agendized 10 days in advance of the meeting, and publicly broadcast. Thus, Commissioners needed to be very careful regarding communications outside of public meetings while continuing to work together outside of Commission work as many serve on multiple organizations and regularly work together. Making documents accessible as required of State agencies (AB 454, Section 508) meant timely posting of documents submitted by the public. Often, documents worked on by Commissioners were not postable by CalRecycle since most documents do not meet newly established accessibility standards for online documents required by law. Few people reliably draft documents adhering to the minimum font size and color contrast requirements, and we are still learning how to draft documents to those standards as well. To expedite the Commission's work, the Chair established a google document folder through the National Stewardship Action Council (NSAC) on October 19, 2020 and CalRecycle linked from the Commission webpage so all documents could be posted at the pace of the Commission's work.

The intent of creating the Google Drive account was to improve access to these proposals before review by the full Commission. The report is posted, and changes are made live and public. Nonetheless, the California Manufacturers & Technology Association made a public records request that all Commissioners provide all records of any communication with anyone about Commission-related topics, with a due date of December 21<sup>st</sup>, 2020. **The broad nature of the request was burdensome to comply with and took time away from the work of the Commission, but we understand such scrutiny is part of being on a public Commission.**

The good news is the tumultuous events of 2020/2021 created opportunities. The Covid-19 pandemic demonstrated the practicalities of electronic public meetings, enabling the Commission and its Committees to meet more often with much less travel time, fewer costs they would have to bear on their own, and reduced greenhouse gas (GHG) emissions.

During the first few meetings in the summer of 2020, the Recycling Commission adopted a [Charter](#) describing internal organization, structure, and governance, adopted a set of [Guiding Principles](#), and reviewed the legal requirements and constraints of public meetings. This report would not have been possible without substantial input from many stakeholders. Details related to the numerous meetings of the Recycling Commission and its Committees are available on the [CalRecycle Commission webpage](#).

## Towards a Sustainable Commission

The Commission wants to share our advice on how to have a sustainable Commission. We operated under COVID rules and were able to conduct a lot of business in public with a lot of access by people who normally would not have participated which resulted in robust reports,

and many policy recommendations that had broad input. However, that all ended in early April 2022 when the Governor ended the Post-covid operations of the Commission Rules allowing us to meet remotely.

The Commission believes that we have been very effective at providing timely advice and shared our concerns with CalRecycle and others regarding - needed policy changes to have a sustainable advisory commission. They are as follows:

1. State-paid timely legal advice;
2. State-paid support staff to handle all the administration of recording meetings and posting videos of meetings in a timely way;
3. Ability to have a quorum meeting, with additional participation without having to disclose each specific location, as that can require disclosure of private addresses; and
4. Ability to meet outside of limitations of only 2 parties without a 10-day public notice when a majority is 9 Commissioners.

Lack of funding for the enormous time contribution and travel requirements under the post-covid rules impacts the potential capacity of this Commission as currently structured.

**D. CalRecycle’s Responses to Commission Proposals as of June 2022**  
**Statewide Commission Data Request**

**Data Request:** What is CalRecycle’s response to each of the Commission’s policy proposals?

**Response:** See table below.

- a** = CalRecycle is implementing programs and policies as a result of legislation or administration direction that align with part or all of the recommendation
- b** = Under consideration as California moves towards a circular economy and zero waste
- c** = Not within existing authority

Proposal	Response	Examples/Notes
20-01 (Extending Producer Responsibility for Household Hazardous Waste)	c	
20-02 (Transition from SingleUse Propane Cylinders to Refillable)	c	
20-03/4 (Precautionary Principle & Problem Products)	a	<ul style="list-style-type: none"> <li>• CalRecycle is beginning implementation <a href="#">AB 1201 (Ting, Chapter 504, Statutes of 2021)</a>, which restricts PFAS in specific types of packaging.</li> <li>• CalRecycle recently completed the rulemaking for <a href="#">SB 1335 (Allen, Chapter 610, Statutes of 2018)</a>, which also restricts PFAS in food service packaging sold at state facilities.</li> </ul>
20-05 State Agency Buy Recycled Campaign	b	

Proposal	Response	Examples/Notes
20-06 Recycling Market Development	a	<ul style="list-style-type: none"> <li>• CalRecycle’s RMDZ Program received \$50 million in new funding last year as part of the Governor’s budget to help support innovative companies that will build the circular economy.</li> <li>• <a href="#">Changes were made to the RMDZ loan program through SB 155 to remove the \$2 million cap on loans, repeal the limit on loan-term duration, and prioritize projects for circular recycling programs.</a></li> </ul>
20-07 Consolidated Permit Process	b	
20-08 GO-Biz Enhanced Role	a	Added at 29 June 2022 meeting by Commission: CalRecycle’s new Office of Innovation collaborates with “Go-Biz” regarding its Market Dev’t efforts
20-09 CalRecycle Market Development Focus	a	<ul style="list-style-type: none"> <li>• CalRecycle is in the process of creating an Office of Innovation to encourage remanufacturing and innovation in end markets.</li> </ul>
20-10 Controls on Plastic Waste Exports	a	<ul style="list-style-type: none"> <li>• CalRecycle will soon begin rulemaking to implement <a href="#">AB 881 (Lorena Gonzalez, Chapter 501, Statutes of 2021)</a>, which will eliminate diversion credits for exporting mixed plastics.</li> </ul>
20-11 Carpet Stewardship and Flooring	c	Added at 29 June 2022 meeting by Commission: CalRecycle set annual collection rate goals for CARE; increasing from 36.4% to 60% over five years. Collecting more carpet will help CARE achieve recycling rate goals because CARE’s program cannot recycle material unless it is collected.

Proposal	Response	Examples/Notes
20-12 Food Recovery Policies	a	<ul style="list-style-type: none"> <li>• <a href="#">CalRecycle continues to implement SB 1383</a> (Lara, Chapter 395, Statutes of 2016), which includes an edible food recovery goal. Since 2018, CalRecycle has awarded \$20 million to 68 projects to either prevent or rescue food that would otherwise be wasted.</li> <li>• CalRecycle is also actively engaged with the Pacific Coast Food Waste Commitment, a multi-state effort to address food loss and waste across the retail supply chain.</li> </ul>
20-13 Right to Repair	c	
20-14 Beverage Container Recycling, Changes to Bottle Bill	a	<ul style="list-style-type: none"> <li>• CalRecycle will soon begin implementing <a href="#">AB 1311 (Wood, Chapter 506, Statutes of 2021)</a>, which offers increased flexibility and opportunities for redemption.</li> <li>• The Administration recently proposed a <a href="#">new plan to use \$330 million of surplus unredeemed container deposits</a> to boost redemption and expand recycling sites, including \$100 million in bonus recycling credits for Californians and \$155 million to expand mobile recycling and reverse vending machine locations.</li> </ul>
20-15 What is Recyclable	a	<ul style="list-style-type: none"> <li>• CalRecycle has begun implementing <a href="#">SB 343 (Allen, Chapter 507, Statutes of 2021)</a>, to help provide truthful information about the recyclability of a product or packaging to consumers, including developing a material characterization study to provide information to the public by January 1, 2024.</li> <li>• <a href="#">SB 1335 (Allen) regulations</a> were finalized, establishing the process for identifying food service packaging items that are “reusable,” “recyclable,” or “compostable” and therefore eligible for purchase by state food service facilities, and the initial list was published.</li> </ul>
20-16 Design for Recyclability – Plastic Container Labels and Shrink Sleeves	a	See 20-15

Proposal	Response	Examples/Notes
20-17 Design for Recyclability – Beverage Containers	a	See 20-15
20-18 Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling	a	See 20-15
20-19 Compostable Products Certification and Approval for Composting or Anaerobic Digestion	a	<ul style="list-style-type: none"> <li>• CalRecycle is beginning to implement <a href="#">AB 1201 (Ting, Chapter 504, Statutes of 2021)</a>, which prohibits the sale of products labeled as compostable or home-compostable unless certain specifications are met.</li> </ul>
21-20 Letter to the Legislature on Urgency Changes to Bottle Bill	a	See 20-14
21-21 Correct Counterproductive Incentives	c	
21-22 Adding Returnable Bottles into the California Bottle Bill	a	<ul style="list-style-type: none"> <li>• CalRecycle will soon <a href="#">begin implementing- AB 962 (Kamlager, Chapter 502, Statutes of 2021)</a> which allows for beverage containers to be reused under the Beverage Container Recycling Program.</li> </ul>
21-23 Redefine Reusable Food Service Packaging	b	
21-24 Producer Responsibility for Market Development	c	

Proposal	Response	Examples/Notes
21-25 Fiber Products Recycled Content Requirements	c	
21-26 Hospitality Textile Recycling	c	
21-27 Recovering Resources from Mixed C&D Debris	c	
21-28 Renewable Technology/Organics Discards to Energy Infrastructure and Market Development	a	<ul style="list-style-type: none"> <li>• <a href="#">CalRecycle continues to implement SB 1383</a> (Lara, Chapter 395, Statutes of 2016), to meet the goal of a 75% reduction in organics disposal by 2025. California's latest budget from FY 21-22 includes \$195 million for projects related to organic waste infrastructure and implementation.</li> </ul>
21-29 Carbon Farming Analysis and Promotion	a	<ul style="list-style-type: none"> <li>• As part of the implementation of SB 1383, CalRecycle continues to support the creation of new and expanded end markets for products of organics recycling. The benefits of compost and mulch use, including benefits of soil carbon sequestration can be found on CalRecycle's webpage on <a href="#">Compost and Mulch Use in Agriculture: Organic Materials Management</a>.</li> <li>• Given the cross-sectoral nature of this issue, CalRecycle contributed to work led by the Natural Resources Agency who developed the draft <a href="#">Natural and Working Lands Climate Smart Strategy</a>.</li> </ul>
21-30 Label System for Products and Post-Consumer Management	a	See 20-15

Proposal	Response	Examples/Notes
21-31 CalRecycle Outreach to Prevent Contamination, Reduce Waste	b	<ul style="list-style-type: none"> <li>• CalRecycle is updating our website and will consider these recommendations.</li> <li>• CalRecycle has begun implementing <a href="#">SB 343 (Allen, Chapter 507, Statutes of 2021)</a>, to help provide truthful information about the recyclability of a product or packaging to consumers, including developing a material characterization study to provide information to manufacturers and the public by January 1, 2024. The results of the material characterization study will be posted on the CalRecycle website.</li> </ul>
21-32 Glass Containers – Wine and Spirits Collection System	c	
21-33 Composting GHG Emission Reductions	b	<ul style="list-style-type: none"> <li>• The process for determining whether an activity constitutes a reduction in landfill disposal under SB1383 is set <a href="#">in regulation</a> and further described at <a href="#">CalRecycle's Article 2 web page</a>. This process, in consultation with CARB, is based on a quantification of the lifecycle greenhouse gas emissions of an activity.</li> </ul>
21-34 Request for Enforcement of Labeling Laws	c	



## **E. Policy Proposals**

[20-01 Extending Producer Responsibilities Framework for Household Hazardous Waste](#)

[21-24 Producer Responsibility for Market Development](#)

[20-02 Transition from Single-use Propane Cylinders to Refillable](#)

[21-21 Correct Counterproductive Incentives](#)

[20-03/04 Precautionary Principle](#)

[21-31 CalRecycle Outreach to Prevent Contamination and Reduce Waste](#)

[20-08 Governor's Office of Business and Economic Development \(GO-Biz\) Enhanced Role](#)

[20-07 Consolidated Permit Process Utilization and Enhancement](#)

[20-09 CalRecycle Market Development Focus](#)

[20-06 Recycling Market Development Zone Loan Program Policy](#)

[20-05 State Agency Buy Recycled Campaign](#)

[21-23 Redefine Reusable Food Service Packaging](#)

[22-36 Designing for Recyclability](#)

[20-16 Design for Recyclability \(shrink sleeves\)](#)

[20-17 Design for Recyclability \(Beverage containers\)](#)

[21-26 Hospitality Textile Recycling](#)

[20-12 Food Recovery Policies](#)

[20-13 Right to Repair](#)

[21-27 Recovering Resources from Mixed C&D Debris](#)

[20-11 Carpet Stewardship and Flooring](#)

[21-20 Letter to the Legislature on Urgency Changes to Bottle Bill](#)

[20-14 Beverage Container Recycling, Changes to the Bottle Bill and Support CalRecycle AB 54 Report](#)

[21-32 Glass Containers – Wine & Spirits Collection System](#)

[21-25 Fiber products recycled content requirements Policy](#)

[21-33 Composting GHG Emission Reductions](#)

[21-30 Label System for Products and Post-Consumer Management](#)

[21-34 Request for Enforcement of Labeling Laws re. Plastic Bags & Film](#)

[20-18 Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling](#)

[21-28 Renewable Technology / Organic Discards to Energy Infrastructure and Market Development](#)

[21-29 Carbon Farming](#)

# Policy 20-01: Extending Producer Responsibilities Framework for Household Hazardous Waste (HHW)

**Primary Authors:** Ward and Sanborn

**Adopted:** December 18, 2020      **Revised:** March 16 & June 1, 2022

**Background:** Extended Producer Responsibility (EPR) is a policy strategy used widely around the world for HHW and other products to place a shared responsibility for end-of-life product management on the producers, and all entities involved in the product chain, instead of the public, while encouraging product design changes that minimize a negative impact on human health and the environment at every stage of the product's lifecycle. This allows the costs of treatment and disposal to be incorporated into the total cost of a product. It places primary responsibility on the producer, or brand owner, who makes design and marketing decisions. It also creates a setting for markets to emerge that truly reflect the environmental impacts of a product, and to which producers and consumers respond.

In March of 2008, the [California Integrated Waste Management Board adopted an EPR policy framework](#) which still applies today.

HHW is both a small proportion of discarded materials and the source of the most significant concerns related to discard management. HHW is illegal to dispose of in the trash. HHW recovery programs generally recover less than a quarter of such material disposed of at great expense. Even so, those programs are largely irrelevant with respect to the state's recovery goals and have been relatively ignored. The largest fraction of HHW remains in the materials disposed of. When improperly placed in recycling or organic materials recovery streams, HHWs pose chemical and explosive hazards within those streams, significantly increasing the costs of those operations. The costs to manage HHW, including costs for load checking, and the construction and operation of permanent HHW facilities across the state, though a significant continuing expense, is proving inadequate to the task of removing the increasing density and diversity of hazards in materials discarded. Continuing municipal support for the diversity of HHW programs required also takes limited local funds away from other programs such as composting. Municipalities continue HHW programs in part to reduce potential long-term liabilities but have limited resources to fund a program that is sufficiently effective. If a community under-performs in its efforts to remove hazardous materials from materials landfilled, that community becomes more vulnerable to potential future expenses associated with superfund cleanups for such a landfill. Companies selling such products have not shared these municipal expenses or liabilities.

In other words, our current system for managing HHW is both a significant public expense, and also an expensive failure. If we had to grade the HHW system effectiveness, it would be an F-, not because the efforts of those providing HHW services are deficient, but because the current HHW system has proven inadequate to these challenges. To manage discards more safely and efficiently, hazardous, and explosive materials need to be a decreasing and more readily managed proportion of discards. Those are not the current trends.

Because HHW is illegal to dispose of with mixed wastes, management of HHW outside of landfills is not counted as "diversion." Though the costs to properly manage HHW are quite high, mis-managed HHW poses hazards to the environment and to those in the waste management system as well as those processing organic materials and recyclables. As this

is another discard stream without adequate revenues for proper management, the cost to manage the fraction of HHW that is properly handled takes limited local funds away from other programs such as composting.

EPR is used widely and successfully for HHW in British Columbia, Canada and in many other provinces and countries for products including anti-freeze, batteries, fluorescent oil, paint, pesticides, electronics, and more.

California implemented the paint stewardship law in 2010 and ten years later, it is working very well. Paint is being reused first, then recycled, and only disposed of when it has no higher and better use. This program is saving local governments millions of dollars they previously spent annually managing just paint. We believe it is in the best interests of California to move as quickly as possible toward EPR for all HHW to ensure all HHW is fully funded for proper management that is convenient and safe while preserving limited local funds for other mandated diversion programs.

CalRecycle just completed another HHW grant cycle HD-37 which was underfunded by over \$300,000 and only 20 of 25 grants were funded. The government will never have enough money to fund these programs, therefore, we need the producers who profit to provide the funding and management of these systems.

There is an urgent need to reduce the fire risks posed by HHW considering the extended duration and increasing severity of California's fire season. In October 2019, a trash truck caught fire in the foothills of the San Bernardino Mountains. When the driver unloaded the truck to try to extinguish the flames, winds spread the fire quickly to the surrounding hillsides, soon encompassing 500 acres. Within minutes the fire had spread to a mobile home community, leading to the deaths of two people and the destruction of dozens of homes, burning over 1,000 acres. Though the source of the fires is under investigation, this Commission believes that action is required to reduce known sources of fires including lithium-ion batteries.

Additionally, the [South Bayside Waste Management Authority had a 4-alarm fire](#) at their Recycling Processing Center (80,000 tons per year) in San Carlos, California which they believe was directly caused by an (almost) expired lithium-ion battery. This incident resulted in over \$8.5M in damages. This vital facility was closed for four months, 50+ employees were furloughed, and the building was not fully operational for a year. They were extremely fortunate to report that no facility workers or any of the 100 firefighters were injured in this incident. They may not be so fortunate in future incidents.

Additional threats to their solid waste program from this incident include a dramatic, five-fold increase in property insurance premiums; a rapidly shrinking pool of insurers willing to write coverage for recycling facilities; and the real possibility of having to self-insure their facilities in the future. This agency believes that self-insurance may not be financially feasible.

Furthermore, customers are often confused about which products are hazardous and how to properly dispose of them. Containers placed in recycling bins that contain residual amounts of hazardous products, such as pesticides, contaminate recycling streams and pose occupational hazards to people working in recovery and discard operations. Hazardous product residuals fundamentally impede recovery of post-consumer plastic for food-grade applications.

**Policy Proposal:** The Commission recommends that California pass EPR framework legislation to establish and maintain a convenient and fully-funded recovery system for all hazardous products - including residuals and their containers as they are contaminants to other recycling/composting streams.

In the absence of such a system, the variety and volume of hazards in the discard and recovery streams continues to expand. Such hazards currently include potentially explosive batteries and hazardous fluids that cannot be safely removed. The disposal of Lithium-Ion batteries in the trash and recycling whether separate or in products represents a clear and present safety danger to our industry's frontline workers, as well as an existential threat to the recycling industry's ability to secure proper insurance coverage for these valuable facilities. No insurance means no facilities, no jobs, and no programs.

Lithium-ion batteries and their increasing diversity of uses are one of the most significant increasing fire hazards for discard management and processing operations. For some facilities, several fires can be directly traced back to such batteries. From either a public safety, fire control, or insurance cost-control perspective, getting batteries that pose flammable and explosive hazards out of the discard stream is an urgent priority.

The California Legislature has considered, but not yet adopted, an EPR framework for HHW. In 2022, it remains unclear whether CalRecycle or DTSC has final authority over HHW management in California. Failure to delegate the responsibility to one responsible Department that is empowered to choose categories of HHW that are able to start new EPR programs for product categories such as all pesticides or all gas cylinders, ensures the Legislature will have to craft new EPR systems one product at a time. If the Legislature finds that EPR is the right policy tool for HHW, staff from both departments should be consulted and, and the legislature should clearly designate a single Department for administration of EPR programs. The Legislature could determine how many products per year can be put under EPR systems or leave it to that Department to determine or put a final deadline that all HHW be put under EPR by 2030, for example.

The producer responsibility programs developed in California have separate legislation, rules and regulations. This makes consistent reliable management of these separate programs at best disjointed, inefficient, and not an even playing field for respective product stewardship programs.

Until an EPR framework law for HHW is enacted, this Commission has identified some priority hazardous products due to their ability to harm people and the environment and cause fires/explosions, and their cost to handle, and the existence of safer alternatives are already on the market:

**Purpose(s): The purposes of this HHW policy proposal are:**

1. To eliminate the mismanagement of hazardous home-generated waste (HHW)
2. To increase customer awareness of which products are hazardous and how to manage unwanted products, how to identify when a package is emptied, and proper management of empty containers.
3. To ensure HHW management is fully funded

4. To reduce the costs that have traditionally been externalized to local and state government for management HHW
5. To eliminate the hazard to the waste management workers when they are disposed of improperly
6. To ensure producers pay for externalized costs and hopefully rethink chemistries of hazardous materials to reduce their toxicity and thereby reduce the cost to manage
7. To establish clear criteria that hazardous products are subject to EPR programs, and new hazardous products require the establishment of new EPR programs or the inclusion of such products under existing EPR programs.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle? Yes.**

**Possible 2022 Legislative Priority? Yes.**

**Does this proposal require additional funding or changes to resource allocation? Yes.**  
The EPR programs should pay for state oversight and reimburse local governments for any management of their product and the use of the facilities.

**Proposal(s): In order of priority,**

1) Establish a **Framework for Extending Producer Responsibilities in California** delegating to either CalEPA, CalRecycle, and/or DTSC the authority to develop criteria and identify toxic products each year to be transitioned to EPR programs until such a time that no toxic or hazardous products are costing local governments money to manage. The authority to establish EPR programs and begin removing hazardous products from municipal management would begin in 2023.

2) Establish EPR programs for the product categories below to reduce known fire and operational hazards.

**1. Explosive Hazards.**

- a. **Sealed single-use products containing Li-Ion batteries** - such as vaping products, should be banned from sale. Products with Li-ion batteries should be mandated to have take-back programs.
- b. **1 lb. propane gas cylinders** - this is NOT a traditional EPR program but should ban the sale of single -use cylinders as reusables are already on the market broadly in California and the costs to manage cylinders are most often more than the cost to buy them.
- c. **Projectile or explosive marine flares** should be banned from sale. They are a 100-year-old technology, have polluted water, and are a chronic problem for boaters to dispose of safely and expire every 3 years and have no management plan. Now that less hazardous and more reliable electronic signals are an option, these flares should be banned from sale.

**2. Aerosol cans.** Aerosol cans containing paint, water repellents and lacquers, stains or other architectural coatings should be added to the PaintCare program as soon as

feasibly possible; and all other aerosol cans should be required to have an implemented EPR system by 2025 or as soon as possible.

3. **Rooftop photovoltaic systems.** Clarification of legal procedures for end-of-life management for photovoltaic panels is an urgent priority for many California communities. To more directly encourage a longer design life for solar panels, it is high time that an EPR program focused on solar panels used on homes be established in California.
4. **Battery walls.** Home power storage is also becoming more common in new home construction in California, and such battery walls - which can be hazardous - are another specific product category that does not fit well into current systems for discard management or resource recovery nor do manufacturers offer take-back programs. To more effectively recover the significant quantities of potentially hazardous materials used in manufacture of some battery walls, an EPR program addressing battery walls would also be appropriate. Products used for home energy storage, such as for battery walls, must urgently incorporate design for recovery to reduce the hazards associated with processing for recycling and should also be managed under EPR programs.

**3) Ban sale of products or require takeback when needed.**

We recommend that California consider banning the sale of products that are toxic and unnecessary in that there are safer alternatives that are often less expensive. Marine flares (as explained above), single-use vaping products, small single-use propane containers and fluorescent lamps may fit this category.

**4) Update requirements for labeling** (and/or color container changes) of all packages for products that CalRecycle and the Department of Toxic Substances Control determine should be managed as HHW. Labels on those packages should inform customers regarding how to identify when a product container is emptied, and proper management of empty containers after product use.

**Related Issues:** California already has several product-specific programs that utilize EPR policy including:

**Mercury Thermostats:** (internalized costs) The [Mercury Thermostat Collection Act of 2008](#) provides for producer responsibility of mercury thermostats. The Department of Toxic Substances Control is the lead department for implementing this law. It was updated in 2021 via AB 707 (Quirk).

**Pesticide Containers:** (internalized costs) [Food and Agricultural Code Section 12841.4](#), covering [pesticide container recycling](#), requires sellers using certain pesticide containers to demonstrate participation in a certified high-density polyethylene (HDPE) pesticide container recycling program and annually submit certifying documents to the director of the Department of Pesticide Regulation.

**Paint:** The [Paint Stewardship Program](#) ensures that leftover paint is properly managed in a manner that is funded by a visible fee with CalRecycle oversight.

**Carpet:** The [Carpet Stewardship Program](#) ensures that discarded carpet becomes a resource for new products with CalRecycle oversight.

**Mattresses:** The [Mattress Stewardship Program](#) aims to reduce illegal dumping, increase recycling, and substantially reduce local government costs for the end-of-use management of used mattresses, with CalRecycle oversight.

**Pharmaceuticals and Sharps:** (internalized costs) The [Pharmaceutical and Sharps Waste Stewardship Program](#) requires safe and convenient disposal options for pharmaceutical drug and home-generated sharps waste with CalRecycle oversight and consultation with the Board of Pharmacy. This program will be implemented in 2022.



# **Policy 21-24: Producer Responsibility for Market Development**

**Adopted:** June 2, 2021

**Authors:** Alex Oseguera, Sara Toyoda

## **Background:**

In order for material to be recycled it must have working collection systems, processing infrastructure and markets. The collection systems for curbside recycling are commonly addressed by local governments through existing agreements with haulers pursuant to Public Resources Code 40059. The costs for these collection programs are generally borne by ratepayers and the costs are sufficient to deliver the material to a material recovery facility (MRF).

The costs to process recyclable material should be covered by markets. If there is a market for the material that is high enough to cover the processing cost with a reasonable return, the material can be processed and recycled. Markets can be volatile and subject to many factors such as contamination, technology and demand. In reality, the cost of processing low value materials is often “subsidized” by higher value materials; however, when market prices are very low, those materials with commodity values that do not support their own processing costs may be disposed of as trash.

Recycling markets are an essential component of a healthy recycling system as ideas and technology develops. New markets can open access for new materials to be recycled. New markets also increase demand for currently recycled material and ultimately increase California’s overall recycling rates. However, new markets need investments for infrastructure and processing. These costs can be significant and may make the risk for investment too high.

Producers do not now have responsibility for post-consumer material created by their product or end of life management for the product itself. Market pricing seldom reflects the full social and environmental advantages of post-consumer material that is recycled or processed for beneficial use. Some of these advantages can be quantified and producers should bear responsibility to correct the market so the post-consumer material created by their products can be recycled.

A system in which producers share in the costs of recycling their material while strengthening pre-existing ratepayer investments, including franchise collection contracts and processing infrastructure supports long term recycling viability. The proposal would create a more resilient recycling system by providing funding from producers when markets are at a level where recyclable material is not recycled. In addition, investments into new markets for recycled material are a significant part of the recycling system necessary to keep recycling systems functioning.

**Purpose(s):** The purpose is to increase the California recycling rate by supporting processing costs for certain types of recyclables, thereby creating a funding mechanism for new recycling markets.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle? Yes**

**Possible 2021 Legislative Priority?** Yes. CalRecycle recycling rate has been steadily decreasing over the past years and this proposal could support an increase in the recycling rate by supporting the cost of the State's recycling system, allowing more consistent recycling and market development of low value, or emerging recyclable materials.

**Does this proposal require additional funding or changes to resource allocation?** No. The proposal would be funded by the CalRecycle-approved Producer Responsibility Organization(s) for each material category. Administrative costs to implement the program would be covered by the PRO.

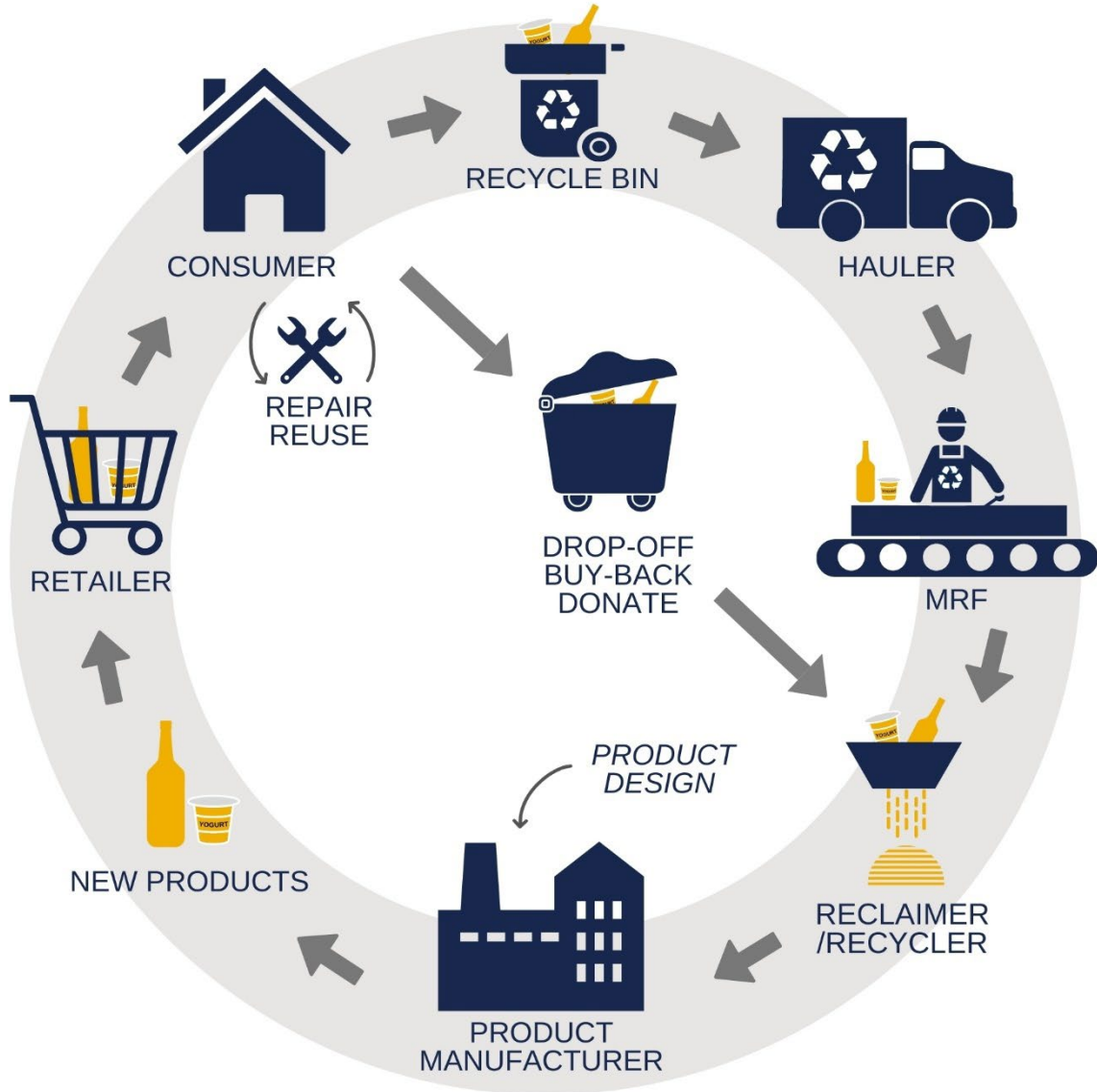
### **Proposal(s)**

Producers of covered products must form a Producer Responsibility Organization (PRO) and submit a plan that must first be approved by a Department appointed representative group of stakeholders including local government, haulers, processors and environmental organizations, and then by CalRecycle. Producers of covered products means producers with products that can be collected for recycling but cannot be processed due to low scrap or market value. Processors include donation and buy-back centers. The plan must meet the following requirements or the plan will not be approved:

1. The plan must outline payment for processing of a covered material if any type of covered material has a scrap value less than the cost of recycling the material type. The PRO will establish a processing payment for the cost of recycling a type of covered material at an established contamination quality standard required by end markets.
2. The actual cost of recycling shall include the receiving, handling, storing, maintaining equipment, transporting to market, and a reasonable rate of return for each ton of each type of covered material sold for recycling. Regional differences should be a consideration in establishing the cost of recycling.
3. If the plan includes plastics packaging or products the plan must provide for programs and performance goals designed to meet standards for reductions in the use of plastic single-use packaging and single-use plastic products.

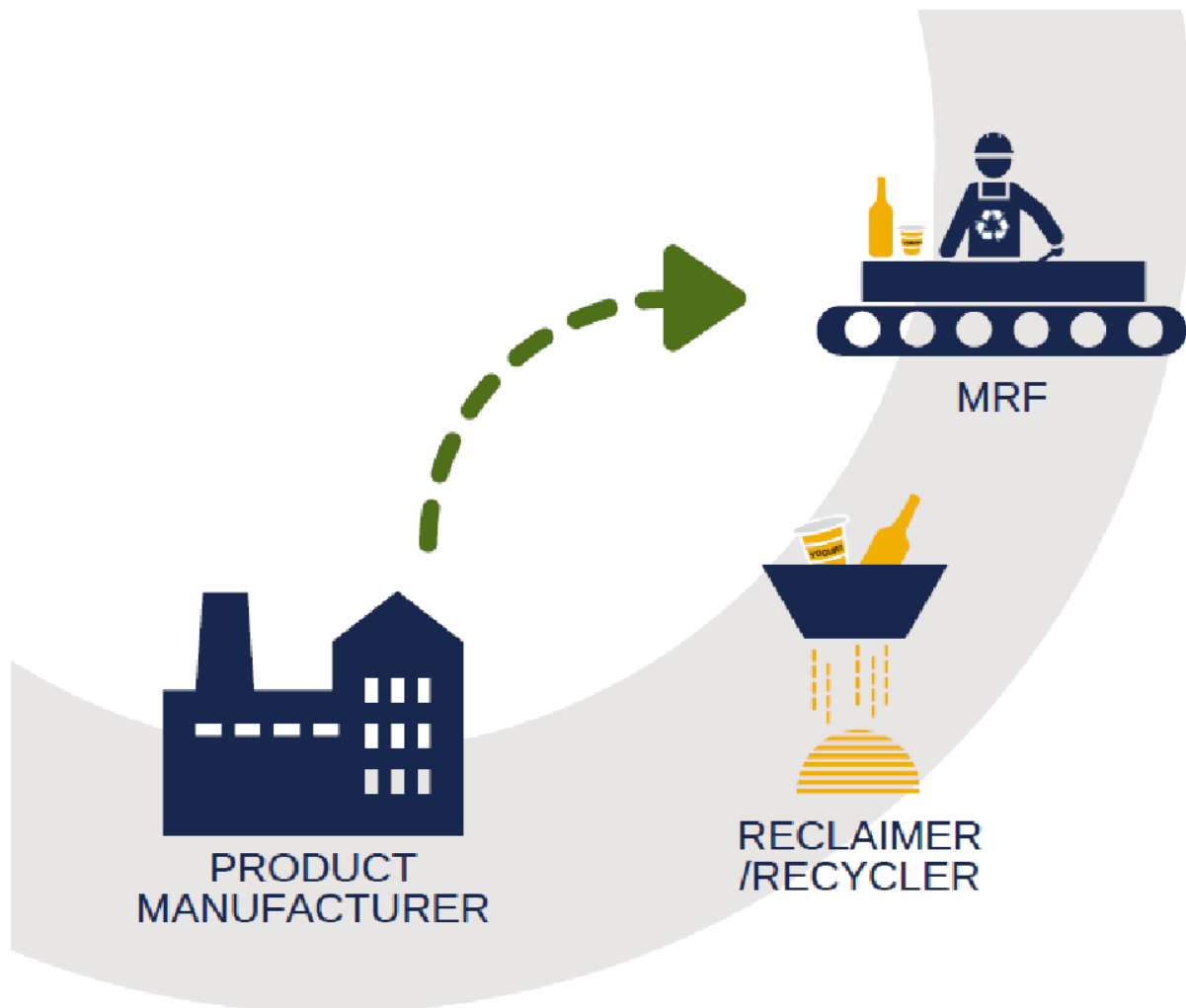
4. Incentivize design for recycling and reduction, while creating disincentives for the design and use of single-use packaging and single-use products that cannot be readily source-reduced, reused, recycled or composted through the network of solid waste programs and facilities providing services in accordance with local solid waste handling requirements.
5. The plan is supplemental to, and not in conflict with, the performance of the solid waste network providing services in accordance with local solid waste handling requirements, and will be implemented in a manner utilizing such solid waste collection programs and solid waste facilities as the designated system for the initial collection and processing of single-use packaging materials.
6. In accordance with PRC Section 40004, the plan does not disrupt, or otherwise adversely affect, the sustained operation or commercial viability of solid waste collection programs, solid waste recycling facilities, or composting facilities providing services in accordance with local solid waste handling requirements.
7. In accordance with PRC Section 40059, the plan is implemented in strict compliance with local laws, rules and regulations applicable to solid waste handling.
8. This PRO market development proposal is designed to work in parallel with enforceable performance standards for different materials within the waste stream. Performance standards take the form of recycling or compostable rates and dates, and/or post-consumer minimum content standards.

# MARKET DEVELOPMENT ILLUSTRATION



## PRODUCER RESPONSIBILITY PAYMENT FLOW ILLUSTRATION

 PROCESSING PAYMENT



### Related Issues

This policy is meant to work in concert with other commission proposals in recyclability, compostability, source reduction, reuse, repair and labeling.

All relevant municipal and state waste management agencies shall implement and adhere to consistent and uniform recyclable and compostable definitions established in law and labeling standards when establishing, adopting or revising policies, regulations and grant criteria when those policies and regulations are pertinent to the management of waste and recyclable material.

Opportunities to harmonize local waste, recycling and composting programs among local jurisdictions and address barriers to encourage cooperation and standardization of programs that also recognize and preserve the right of a local agency to determine aspects of solid waste handling that are of local concern pursuant to PRC Section 40059.

Allow existing bans/restrictions adopted by municipalities or the state to remain in place.

# Policy 20-02: Transition from Single-Use Propane Cylinders to Refillable

**Authors: Ward and Sanborn**

## ***Addresses Which Commission Goals:***

1. 75% goal following waste management hierarchy of waste reduction first, then recycling & composting, then disposal environmentally safe transformation and land disposal.
2. Market Development (increase market demand for post-consumer waste materials, increase demand for recycled content products, promote high quality feedstocks, promote competitive collection and use of secondary waste materials),
3. Meet methane emission reduction goals to reduce organics disposed in landfills (50% by 2020, and 75% by 2025 from 2014 levels);
4. Clarify products that are recyclable and compostable;
5. Provide feedback to CalRecycle on public messaging to recycle properly and minimize contamination.

First Hearing: 12/2/21; Second Hearing: 12/16/21 Revised: 11/17/21

**Background:** Single-use 1 lb. propane cylinders are a threat to human and environmental health. When “empty,” single-use cylinders often still contain a small amount of gas, posing a danger to sanitation workers due to risk of explosion and resulting fires. Because of the high hazard level, this waste stream is very costly to manage and dispose of properly. Ironically, 80% of the purchase price is for the single-use packaging, the steel cylinder, which is the main culprit of the disposal issue.

Every year in North America, approximately 40 million single-use 1 lb. propane cylinders are used, with an estimated of **over four million in California alone\***. Because of limited disposal options, the empty cylinders are often disposed of improperly in landfills, dumpsters, household trash or recycling bins, campsites, on the roadside or in recycling containers and can cause explosions. A MRF in [Grand Rapids, Michigan in 2017](#) had an explosion that was proven to be caused by three of these 1 lb gas cylinders.

Made of hot rolled steel, these cylinders have very high GHG impacts with an estimated 11 million lbs of GHG emissions avoided if CA moved to refillables only. All other sizes of propane cylinders have been made refillable for decades including BBQ size 5 gallon and the 20-gallon size used on fork lifts. The public is trained to refill BBQ tanks and can do the same with 1lb cylinders in California, but when the cost of the 1lb cylinders has been externalized onto local governments via HHW programs when the refillables now exist and are sold and refilled in California, we believe the sale of disposables should be banned in short order. The propane cylinder is 80% of the cost of the product- the gas costs approximately 25 cents. Costs to dispose single-use cylinders in California range from \$2 - \$40 each.

The [ReFuel Your Fun \(RFYF\)](#) campaign was developed by the California Product Stewardship Council in 2015 using CalRecycle HHW grants to transition communities to choose reusable cylinders over their single-use counterparts. The campaign works to educate the public about the advantages of using reusable 1 lb. propane cylinders as compared to the disadvantages of the single-use cylinders noted earlier. This is accomplished through a variety of methods including, although not limited to, conducting outreach/exchange events to get more reusable cylinders into circulation. CPSC, through its RFYF campaign utilizing HHW grants, has worked with dozens of local jurisdictions throughout the state to implement the campaign which has led to U-Haul selling and refilling 1lb propane gas cylinders statewide at nearly every store that offers propane services. The map of all the locations already selling and refilling is [here](#).

**Purpose(s):** This proposal would be to:

- Protect curbside programs from fires in trucks and at MRFs
- Increase safety of the workers in the discard system
- Reduce waste from single-use propane cylinders of 1lb size
- Expand locations to refill and properly manage cylinders
- Expand education about refillables
- Save HHW programs money – cylinders can be very expensive to recycle
- Encourage more manufacturers to stop making single-use cylinders and instead manufacture refillables and develop the sales and marketing program to educate the public about them

**Proposal(s):**

- Establish a ban on the sale of single-use 1lb propane gas cylinders as soon as feasible that are sold in CA (and are not legally refillable).

**Related Issues:**



## Dangers in the Waste Stream

[https://www.mlive.com/news/grand-rapids/2017/06/propane\\_tanks\\_cause\\_explosion.html](https://www.mlive.com/news/grand-rapids/2017/06/propane_tanks_cause_explosion.html)



- Above: 2017 fire started by three 1 lb. propane cylinders at MRF in Kent County, MI
- Another explosion at facility in 2016 caused by one 1 lb. propane cylinder **cost \$90K!**
- **Risks including injuries/death, facility damage, loss of insurance coverage**

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NATIONAL STEWARDSHIP ACTION COUNCIL

## Yosemite National Park

*"Between fuel and the staff we pay, it's **at least \$3 a piece to dispose of them,**" says Jodi Bailey, program manager for the Zero Landfill Initiative at Yosemite National Park. "We have seven drivers and 42 people emptying small trash cans, and **it's a seven-day-a-week operation.** These are challenging times for federal land management agencies, and **we'd rather spend that money providing better services to our visitors.**"*

*Propane Tanks Wreak Havoc at MRFs and Disposal Sites, Waste 360, 5/23/19*



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NATIONAL STEWARDSHIP ACTION COUNCIL

# Greenhouse Gas Emissions Reductions



- 73 million lbs. of GHG emissions from production of an estimated 36.7 million lbs. of steel prevented over a **10-year lifespan** of a typical reusable
- 11 million lbs. of GHG emissions could be prevented from adopting 1lb. reusables in CA (propane emissions)
- Total: 84 million lbs. over product lifespan



Calculations by: U-Haul's Chief Sustainability Scientist Allan Yang, Ph.D. & MBA



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# U-Haul Launch



- 135+ locations in CA with propane
- Plans to expand strategically nationwide – **must have local commitment for promotion**
- Selling and refilling

# U-HAUL



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# Industrial Environmental Association's 2016 Environmental Excellence Award



Award video: <https://www.youtube.com/watch?v=rxQTV-YbU80>



*Pictured L to R:  
Sam Newman, Flame King; Jordan Wells & Heidi Sanborn, CPSC; Kevin Scofield, U-Haul*

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## RFYF in the U.S.



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**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Yes, legislation would be required to provide the regulatory mechanisms needed to implement the proposal. This would include, but not be limited to, DTSC and CalRecycle.

**Possible 2022 Legislative Priority?** Yes. The sooner the cut-off date for sales of such single-use propane containers is set, the faster the concerns about safe disposal and GHG impacts will be addressed. Due to the unexpected costs resulting from COVID-19, local jurisdictions are increasingly unable to bear the cost burdens associated with repairing and rebuilding waste management facilities damaged due to single-use cylinders. Due to these factors, we recommend making this a 2021/2022 legislative priority. As there are refillable alternatives, a ban of the sale of single-use propane containers could be a viable alternative to an EPR program for these 1 lb propane products.

**Does this proposal require additional funding or changes to resource allocation?** The costs to oversee an EPR program, if needed, would be paid for by the producers of the single-use cylinders.

# Policy 21-21: Correcting Counterproductive Incentives

**Primary Author(s):** Coby Skye, Tedd Ward

**Adopted:** June 2, 2021

**Background:** The AB 1583 Statewide Commission on Recycling Markets and Curbside Recycling has been charged with making policy recommendations to, among other things, achieve the policy goal in AB 341 (Chesbro, 2011) that not less than 75 percent of solid waste generated be source reduced, recycled or composted, and develop California's markets for processing and re-manufacturing recycled materials and organic waste which create jobs and reduce carbon emissions from the waste sector.

The abundance of products and materials moving through the economy is related to the cost to extract, process, manufacture, and distribute those materials. Product and materials recovery depends upon product, component, or commodity value that can be recovered versus the cost of new production. To the extent that subsidies and economic supports result in reducing the cost of new materials and products, those same supports undermine viable reuse and recovery while also underpricing durable materials produced into the market, which makes economic recovery of those materials economically impractical. Extraction and production subsidies fundamentally undermine recovery and recycling.

Economic support for the extraction and processing of fossil fuels have nurtured an oversupply of processing by-products. Understanding the reasons plastics have proliferated and permeated our global material culture requires some understanding of the economics of fossil fuel refining and processing, and the products and byproducts of those processes. Some of these byproducts have been refined, processed and distributed as products, and others as hazardous wastes. The ingenuity of such chemical engineers has resulted in the myriad incarnations of this useful inexpensive and durable material. Therein lies a cultural challenge: acknowledging that the volume and durability of these cheap materials has overwhelmed the capacity of systems to manage them.

Federal, state, and local economic incentives for extractive industries like petroleum, logging, and mining have been embedded in our regulatory system for many decades, however many of these subsidies and incentives can be counterproductive and undercut achieving international, federal, and state environmental and public health goals. On the front end, while incentives help to internalize profits for these industries, they can enable negative public health impacts and environmental degradation in the creation of the materials and help externalize these costs from the industries' economics. The incentives reduce the costs of new products and materials, giving them an advantage over other materials that may be more sustainable,

reusable, repairable, and recyclable to be sold and bought into the market. While extractive industries have provided good-paying jobs, sustainable industries such as solar and recycling provide green jobs and are part of the solution for mitigating the crises.

### A Focus on Plastics as a primary example of problems exacerbated by Counter Productive Incentives:

#### *Climate and Plastic Pollution Crises:*

The Center for International Environmental Law notes in the “Plastic & Climate: The Hidden Costs of A Plastic Planet” report:

“The plastic pollution crisis that overwhelms our oceans is also a significant and growing threat to the Earth’s climate. At current levels, greenhouse gas emissions from the plastic lifecycle threaten the ability of the global community to keep global temperature rise below 1.5°C. With the petrochemical and plastic industries planning a massive expansion in production, the problem is on track to get much worse. If plastic production and use grow as currently planned, by 2030, these emissions could reach 1.34 gigatons per year—equivalent to the emissions released by more than 295 new 500-megawatt coal-fired power plants. By 2050, the cumulation of these greenhouse gas emissions from plastic could reach over 56 gigatons—10-13 percent of the entire remaining carbon budget.”

The financial incentives that tilt the market in favor of these materials, creating an unfair low cost for the material and an unfair competitive advantage over other more sustainable materials, ought to be corrected immediately to help mitigate the resulting and growing negative impacts.

The need to address subsidies for oil and gas extraction is especially urgent. Oil and gas extraction is driven primarily by projected energy demand. Refinery by-products include lubricants, solvents, soaps, asphalt bitumen, and materials that can be combined with natural gas to form a wide variety of plastics. ***Plastics are made from natural gas and petroleum by-products left over after the fuel from each barrel of oil is extracted – irrespective of demand for those plastics or by-products.*** While PET and HDPE plastic resins have established recovery markets, most others do not. Almost all other plastic resins are destined for disposal. All plastics are also, by design, long lasting in the environment, and therefore can have persistent negative impacts if they are littered or improperly disposed. The more such materials enter the marketplace, the more significant the barriers to meet California’s recovery goals.

In addition to national policies such as the defense industry's focus on strategic sources of oil supply or the rates of cost recovery for the national Strategic Petroleum Reserve, subsidies and economic supports for oil and gas extraction and processing may include: access to public lands or coastal regions, supports for how equipment is taxed or expensed, supports for processing and transport facilities, mechanisms regarding how lands are valued and taxed prior to and following extraction, and enforcement of remediation and cleanup following extraction.

Many plastics are light-weight and durable. Relative to other materials, landfill disposal fees for plastics are low, though plastics generally demand more effort and expense in terms of litter and pollution control, and as a primary contaminant in recycling operations. A 2012 USEPA-commissioned study found that west coast communities spend more than half a billion dollars each year to combat litter.<sup>1</sup> There are additional externalized costs for plastic products related to plastic (especially plastic film) contamination of other recyclable materials, climate impacts from plastic production, and microplastic pollution in the world's oceans.

Companies like ExxonMobil, Shell, and Saudi Aramco are ramping up output of plastic — which is made from oil and gas, and their byproducts — to hedge against the possibility that a serious global response to climate change might reduce demand for their fuels, analysts say. Petrochemicals, the category that includes plastic, now account for 14 percent of oil use, and are expected to drive half of oil demand growth between now and 2050, the International Energy Agency (IEA) says. The World Economic Forum predicts plastic production will double in the next 20 years.<sup>2</sup>

This means that financial and tax incentives favoring petroleum based energy production are increasingly benefiting virgin plastic production. Since recycled plastic pricing is discounted against virgin resin pricing, recycled plastic value suffers.

Since 2010, companies have invested more than \$200 billion in 333 plastic and other chemical projects in the U.S., including expansions of existing facilities, new plants, and associated infrastructure such as pipelines, says the American Chemistry Council, an industry body. While some are already running or under construction, other projects await regulators' approval.<sup>3</sup>

Global emissions linked to plastic — now just under 900 million tons of carbon dioxide equivalent annually — could by 2030 reach 1.3 billion tons, as much as almost 300 coal-fired power plants, the Center for International Environmental Law found. If output grows as

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<sup>1</sup> Stickel, B. H., A. Jahn and W. Kier 2012. The Cost to West Coast Communities of Dealing with Trash, Reducing Marine Debris. Prepared by Kier Associates for U.S. E.P.A., Region 9

<sup>2</sup> <https://e360.yale.edu/features/the-plastics-pipeline-a-surge-of-new-production-is-on-the-way>

<sup>3</sup> Ibid.

planned, plastic would use up between 10 and 13 percent of the carbon emissions allowable if warming is to stay below 1.5 degrees Celsius, the center reported.<sup>4</sup>

### *Public Health.*

All seven plastic resins contain and leach toxins: PET or PETE, PVC, PS, and mixed plastics at more dangerous levels; and HDPE, LDPE, and PP at less concerning levels. Exposure to the leached toxins is linked to “cancers, birth defects, impaired immunity, endocrine disruption, and other ailments.”<sup>5</sup> Chemicals with the potential to disrupt the human endocrine system and thus impact fertility are widely used in plastics manufacture. These endocrine disruptors include phthalates used to make plastics soft and flexible, and bisphenol- A (BPA) used to harden plastics, in linings on metal can surfaces, and on printer receipts.

Plastics have entered the food chain across the globe, plastic is present in the air we breathe, the water we drink, fish and other animals that we consume. While we are awash in microplastics and will be living with them for a long time to come, the full negative impacts on public health have yet to be determined. Recent studies have even detected microplastics in human placentas. “Microplastic particles have been revealed in the placentas of unborn babies for the first time, which the researchers said was ‘a matter of great concern’. The health impact of microplastics in the body is as yet unknown. But the scientists said they could carry chemicals that could cause long-term damage or upset the fetus’s developing immune system.”<sup>6,7</sup>

Senate Bill 1422 California Safe Drinking Water Act: microplastics (Portantino, 2018) requires the State Water Resources Control Board to adopt a definition of microplastics in drinking water and adopt a standard methodology to be used in the testing of drinking water for microplastics by July 1, 2021; and requires four years of testing and reporting of microplastics in drinking water thereafter. These initial health guidelines for microplastics in drinking water will help to begin to give us a quantitative sense of how extensive microplastics are in our drinking water.

### *Much more than Recycling:*

Furthermore, with the successful adoption of renewable energies in transportation, the petroleum industry has drastically increased and plans to continue to substantially increase

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<sup>4</sup> Ibid.

<sup>5</sup> Plastic Pollution Coalition, “Science, Health & Toxicity”, <https://plasticpollutioncoalition.zendesk.com/hc/en-us/articles/225531028-Issues-Health-Hazards>

<sup>6</sup> <https://www.sciencedirect.com/science/article/pii/S0160412020322297>

<sup>7</sup> <https://www.theguardian.com/environment/2020/dec/22/microplastics-revealed-in-placentas-unborn-babies>



petrochemical production for plastics to make up for lost revenue. Leveling the market playing field would allow for more economical adoption of sustainable materials.

Source reduction, which addresses the plastic waste issue upstream, is one of the most successful policy measures. While less than ten percent of plastic has been recycled and several plastic resins are not practically recyclable, even plastic that is recycled is not zero waste. A new-state-of-the-art PET bottle recycling plant will process 63,500 tons of post-consumer PET annually to produce 40,800 tons of food-grade rPET pellets, which means roughly 64% of the material collected is recycled.<sup>8</sup> Addressing the plastic waste and climate crises requires that we must take upstream actions and implement source reduction, reuse, repair, and recycling.

*Seasoned Policy Measures for addressing Counterproductive Incentives & Problems:*

As we examine eliminating or phasing out counterproductive incentives, we should concurrently explore policies that could level the playing field for recovery, recovery enterprises, and sustainable alternatives.

To achieve source reduction and recycling goals and correct the adverse market impacts created by counterproductive incentives, a variety of policy tools and measures have been utilized, but more are needed. These tools include: taxes, Extended Producer Responsibility (EPR) programs, bans, and other charges. Bans are effective for undesirable and unrecyclable materials and spur innovation in sustainable alternatives as identified by UNESCO COMEST; product restrictions and requirements are more flexible yet can result in significant source reduction and recycling compatibility. Taxes help to internalize the costs of the materials; increased landfill fees can disincentivize disposal and fund increased recycling rates. Direct and variable charges often known as Pay-As-You-Throw are more equitable and move closer to “consumer/polluter” pays rather than paying as a “resident” and result in significantly increased waste prevention and increased source separation. EPR internalizes the costs of the materials, respects the “polluter pays” principle, and corrects market imbalances as producers incorporate recycling market price fluctuations and/or redesign to be more recyclable and sustainable.

EPR shifts the responsibility for the post-consumer phase of certain goods onto producers. An EPR framework is a critical and effective policy tool that holds manufacturers accountable for the circularity and end-of-life impacts of their plastic products and packaging. EPR is the most durable and effective policy which provides sustainable program funding, sufficient convenience for consumers to drop off unwanted products, a stewardship plan developed by

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<sup>8</sup> Messenger, Ben “CarbonLITE Opens World’s Largest Bottle-to-Bottle Recycling Plant in Pennsylvania”, Waste Management World, October 23, 2020.

producers for review and approval by stakeholders and the state government oversight agency, and comprehensive public education and outreach.

**Purpose:** Achieve state policy goal of 75 percent of solid waste generated being source reduced or recycled by reducing material that is being disposed of by eliminating or counteracting the counterproductive incentives that give an unfair market advantage to less sustainable materials, and give economic incentive for achieving sustainability and environmental goals and protections.

Achieve state policy goals for addressing the climate emergency and greenhouse gas (GHG) emissions reductions, by eliminating incentives for one of the fastest-growing GHG emissions sectors that could prevent the achievement of GHG emissions reductions and stabilizing global temperatures.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle:** Yes, CalRecycle would need to coordinate with other agencies that have jurisdictions over extractive industries, pollution, GHGs, and the climate emergency.

**Possible 2021 Legislative Priority:** Yes, as the immediate implementation of corrective measures could have significant transformative results in achieving international, federal, state, and local goals for sustainable circularity and recycling, addressing immediate climate and other public health and environmental crises, and raising the quality of life and the environment.

**Does this proposal require additional funding or changes to resource allocation:** The proposal would result in eliminating or shifting the financial burden from the state and local jurisdictions to producers and polluters, and some policy solutions could result in additional revenue for the state and local jurisdictions.

### **Proposal(s):**

The 2020 deadline for 75% source reduction, recovery, and diversion from landfills has come and gone, and California is moving farther away from this goal, even as the climate and environmental crises loom larger. While counterproductive incentives ought to be further assessed and quantified, it is clear that immediate action is needed to intervene in the climate, environmental, plastic pollution, public health, and recovery crises. This includes the following recommendations to support source reduction, reuse, repair, recycling, conversion, and diversion from disposal.

1. Establish a comprehensive program for single-use plastics and packaging, which would require these products to be recyclable or compostable. Establish extended responsibility for producers to achieve source reduction, reuse, recycling and diversion rates, and financing to upgrade and expand existing infrastructure to adequately address this critical issue. Please reference the Commission's Extended Producer Responsibility policy recommendation for additional information.
2. Commission a report regarding 'Incentives to Foster a Circular Economy' both at the California state level as this commission has a state mandate and so that the state can assess how best to move forward, and at the federal level because most counterproductive incentives are federal. At the state level this could be completed internally by the Legislative Analyst Office, or by an economic research body such as Eunomia or the UCLA Luskin Center for Innovation. The content of this report would do each of the following:
  - a. Identify and quantify general categories of counter-productive incentives, including but not limited to:
    - i. Master Limited Partnerships,
    - ii. Intangible Drilling Cost deductions,
    - iii. Federal marginal well tax credit,
    - iv. Federal enhanced oil recovery credit,
    - v. Royalty Payment Reductions on Federal Lands,
    - vi. Depletion Allowances on private lands,
    - vii. Domestic Manufacturing Deductions,
    - viii. Comparative rates for expensing equipment, materials, and energy
    - ix. Federal Tax incentives such as Foreign Tax Credits,
    - x. Federal General Mining Act of 1872,
    - xi. Various state tax incentives, exemptions, and exclusions
  - b. Assess potential opportunities for balancing incentives for recovery infrastructure, including but not limited to:
    - i. Minimum recycled content requirements
    - ii. Extended Producer Responsibility programs
    - iii. Bans
    - iv. Taxes, such as on single-use plastics
    - v. Increased landfill disposal fees
    - vi. Direct and variable charges (also referred to as Pay-As-You-Throw)
    - vii. Zoning for Tier 1 and 2 Recovery Businesses in General Plan updates
    - viii. Comparative rates for expensing equipment, materials, and energy
    - ix. Allowing recovery operations on public lands under specified conditions
    - x. Support in terms of access to targeted discards or reduced disposal fees
  - c. Propose mechanisms for the systematic phase-out of counter-productive incentives, including proportionate reduction of incentives applied to virgin plastic production. Establish balancing incentives for recovery infrastructure, with specifics for achieving reduction, reuse, and reduction goals and rates.
3. Effective after delivery of the 'Incentives to Foster a Circular Economy', mandate and fund CalRecycle, with agencies with interconnected jurisdiction such as Public Health, Natural Resources, Commerce to develop a strategic plan to designate appropriate

uses of refinery by-products and plastics in California's economy, recommending the most effective means of implementing such policies.

4. Request a Joint Resolution by the Assembly and the Senate of the State of California to our Federal Delegation in favor of the United States assessing and eliminating counter-productive incentives and implementing incentives for recovery and sustainable circular economics at the Federal level.

**Related Issues:**

GHG emissions and climate emergency, pollution, single-use plastics and packaging, reuse and refillables, recycling, extractive industries and donut economics, federal and state policy recommendations, bans, product restrictions and requirements, taxes, landfill fee, and minimum recycled content.

# Combined Policies 20-03/04: Precautionary Principle & Problem Products

**Updated: 01 June 2022**

**Primary Authors:** Commissioners Coby Skye and Tedd Ward

**Adopted:** Precautionary Principle and Problem Products adopted December 18, 2020 separately, and this policy merges both into one for July 1, 2021 report

## **Background:**

(1) The California Integrated Waste Management Act (Act) of 1989 requires each city and county, and each regional agency formed pursuant to the act, to develop a source reduction and recycling element of an integrated waste management plan to divert 50% of all solid waste, through source reduction, recycling, and composting activities. The Act is administered by the Department of Resources Recycling and Recovery (CalRecycle), which oversees local government planning, permitting and reporting related to disposal, recycling, and composting of solid waste, as well as specific programs related to items such as tires, used motor oil, and plastic straws. The Act makes a legislative declaration that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by 2020.

(2) The California Beverage Container Recycling and Litter Reduction Act of 1986 was designed to be a self-funded operation that accomplished two main goals of reducing litter and achieving a recycling rate of 80 % for eligible containers. Since the program was first implemented in 1987, the recycling rate of eligible containers has increased from 52 % to a program-high of 85 % in 2013. In addition to creating and sustaining one of the largest recycling infrastructures in the nation, California's beverage container recycling program has supported thousands of jobs in the state's recycling industry and kept more than 360 billion bottles and cans out of California landfills and off the streets—reducing greenhouse gas emissions associated with mining and refining of new raw materials.

(3) The Sustainable Packaging for the State of California Act of 2018 prohibits a food service facility located in a state-owned facility, operating on or acting as a concessionaire on state property, or under contract to provide food service to a state agency from dispensing prepared food using a type of food service packaging unless the type of food service packaging is on a list that the department publishes and maintains on its internet website that contains types of approved food service packaging that are reusable, recyclable, or compostable.

(4) Senate Bill 212 (SB 212) (Jackson, 2018) establishes a stewardship program, under which a manufacturer or distributor of covered drugs or sharps is required to establish and implement a stewardship program for covered drugs or sharps, either on its own or as part of a stewardship organization. SB 212 imposes various duties including submitting a proposed stewardship plan, an initial and annual stewardship program budget, an annual

report, and other specified information to CalRecycle. SB 212 requires each covered entity, either individually or through the stewardship organization of which it is a part, to pay all administrative and operational costs associated with establishing and implementing the stewardship. The Act authorizes monies from the Pharmaceutical and Sharps Stewardship Fund to be expended, for the regulatory activities of state agencies of administering and enforcing SB 212. Furthermore, it authorizes CalRecycle to impose an administrative penalty on a covered entity, program operator, stewardship organization, or authorized collector that sells, offers for sale, or provides a covered product in violation of the Act's provisions. SB 212 requires CalRecycle to adopt regulations and requires the plan to be fully implemented by July 2022.

**Purposes:** Currently there is no reliable mechanism whereby products or materials that are detrimental, costly, or endanger municipal services are identified prior to placement on the market. Fiscally responsible municipal operations depend on a functioning ability to eliminate problematic inputs swiftly.

If California is to be able to provide effective municipal services, including recovery of collected materials, then those recovery streams must be protected from potential harm that may be introduced by-products or materials containing harmful additives or ingredients that persist through the recycling and composting process. That capacity for preventing, or even identifying and effectively resolving, problems with recovery stream contaminants does not exist but is essential if recovery markets are to be relied upon as our primary mode of managing discarded materials.

Furthermore, the mode of contamination may not just be in the materials recovered, but also in litter, illegal dumping, or some other mode of identification by a State resource agency, such as the California Coastal Commission responsible for protecting our coasts. There needs to be an effective method of identifying, controlling, or prohibiting material uses that result in significant environmental impact across our coastline and our coastal waters without simply accepting that as a continual public expense.

Numerous products are harmful to the environment, or costly or disruptive for municipal services, including materials collections and processing. Unfortunately, these are already too numerous and ubiquitous to create separate legislation for each material type and every product. Efforts to enact such legislation have been hampered by the comprehensive review of each product that has been identified as problematic, but the resulting increases in municipal expenses have continued unremedied.

This policy will do the following:

(1) Identify additives or ingredients that would preclude an item from being labeled recyclable or compostable, or to be included on the list of eligible products produced pursuant to SB 1335.

a. Producers must provide a list of all additives and ingredients to CalRecycle for consideration and review for any products seeking certification.

(2) Establish a process to review potentially toxic ingredients that might adversely affect end-of-life management of any food serviceware or food-contact packaging item or other product, before the product enters the stream of commerce in California.

(3) Establish a process for communicating the adverse impacts of improperly using such incompatible materials in a product or package in California.

(4) Products that have already entered the stream of commerce using such incompatible materials may be subject to the same controls and may be phased out in a timely manner to protect the viability, integrity, and resilience of the processing systems.

(5) Establish a survey process to determine and prioritize which products or materials are economically or environmentally detrimental to municipal services or California resource agencies or create contaminants that impede recovery efforts.

(6) Establish penalties such as Contaminant Introduction Penalties or remediation funds to reimburse for related expenses, product bans with immediate effect, or other regulations to address the impacts of the problem items.

**Would this policy proposal require legislation or interaction with an agency other than CalRecycle?** Yes, some aspects can be completed by CalRecycle other recommendations in this policy recommendation require legislation.

**Possible Legislative Priority?** Yes, the Commission has set this as a priority since 2021. This legislation would further recognize best practices such as EPR and fee structures for incentivizing and disincentivizing problem products and allow CalRecycle to implement these best practices. This is critical for adequately meeting state solid waste source reduction, reuse, recycling, conversion, and diversion goals, and environmental and public health and safety mandates. California has established a precedent for CalRecycle to regulate problem products such as beverage bottles, packaging, and EPR for pharmaceutical drugs and sharps, paint, carpeting, and mattresses. The EPR policy model has created effective programs for over thirty products in Canada and Europe. A timely rollout of this

regulatory model in California would greatly benefit the public health, safety, environment, and achievement of our materials recovery system requirements.

With recycling markets severely impacted by contamination, flexibility to move swiftly to identify new sources of contamination and establish policy/programs to address contamination are greatly needed. Granting CalRecycle the authority to develop these programs for problem products would provide that flexibility and speed up the process of addressing contamination.

**Does this proposal require additional funding or changes to resource allocation?**

Initially, staff from CalEPA and perhaps staff from Departments like CalRecycle or the Department of Toxic Substances Control would be engaged in drafting of regulations and development of this program. Once established, further development of this program under CalEPA could be funded in part by the revenues from Contamination Introduction

Penalties.

**Proposal(s):**

(1) CalRecycle should require that a food service packaging item that is listed as either recyclable or compostable pursuant to SB 1335 shall not contain any compounds determined to cause unacceptable harm or contamination to recycling or composting, including likely harm to demand for end-products or significant increases to processing costs.

(2) CalRecycle should exercise its authority under 42357 (C) to issue guidelines identifying that materials that contain harmful additives and are designed in a manner that would be considered misleading to consumers if they were to be labeled “compostable” or “home compostable” since they include compounds that contaminate finished compost.

(3) The legislature should enact legislation authorizing CalEPA agencies, including CalRecycle to regulate products and material applications that contaminate municipal services, curbside recycling collection or processing programs or recycling markets, or pollute the environment including California air basins, land, waterways, and coastal regions. Examples of these types of products include, but are not limited to:

- products with Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
- tobacco products such as single use vaping devices and filters
- personal care products (e.g., cosmetics, lotions, sun block, nail polish, shaving cream) with PFAS and other chemicals that can harm public health and the environment.
- non-recyclable plastics, toys, decorations, party supplies, single use convenience items, etc. with chemicals such phthalates or embedded batteries.

a. Upon receiving an authorized survey confirming that a specified product or material application is an economically or environmentally detrimental contaminant to municipal services or California resource agencies, CalEPA would delegate authority to CalRecycle, the Department of Toxic Substances Control, the Air Resources Board, the Department of Pesticide Regulation, the Office of Environmental Health Hazard Assessment, the State Water Resources Control Board, or some combination thereof to

swiftly address that contaminant to minimize facility operational cost impacts, and to prevent the introductions of similar contaminants.

b. Surveys triggering such action may be initiated by agency staff, trade associations, or advocacy groups.



c. If CalEPA receives surveys which:

- have been completed by over 80% of similar municipal services, materials recovery processors, or responsible resource agencies, representing at least 80% of either such facilities, or the landmass, watersheds, coastlines, or population of California,
- and indicate that 80% of such respondents agreed that the specified products or material applications are directly associated with increased pollution or a tangible increase in operational or processing costs,

Then within 30 days of receipt of such survey CalEPA will be authorized to delegate authority to one or more of its Departments to regulate such product or material use, potentially including one or more of the following:

1. Swiftly resolve the operational or environmental challenge associated with that product or material application, potentially including
2. Contaminant Introduction Penalties of up to 200% of the assessed additional costs to facility operations or environmental remediation across California, b. Banning of such products or material uses in California,
3. Required development of Extended Producer Responsibility (EPR) programs, or advanced recovery fee structures such as CRVs.

(4) The Californian Legislature should enact legislation authorizing CalRecycle to develop a process to approve or disapprove the sale of food-contact packaging and food serviceware based on whether the product has constituents that would contaminate recycling or composting streams. This would be complementary to existing approvals under the Food and Drug Administration and the Safer Consumer Products Program at the Department of Toxic Substances Control by adding an end-of-life toxicity evaluation.

a. Before any new item of food-contact packaging or food serviceware is sold, distributed, or offered for sale within the state, it must be approved by CalRecycle, in consultation with the Office of Environmental Health and Hazard Assessment, Department of Food and Agriculture, the Department of Toxic Substances Control, and CalEPA.

(i) Items already being sold into the stream of commerce in California with an additive or ingredient that persists through the recycling and composting process and may be of potential harm must also be approved by the CalRecycle in the same manner.

b. Responsible parties, producers, manufacturers, distributors, or other entities determined by CalRecycle must finance at least one of the following:

(i) Fund their real-world test certifying their product breaks down to compost in CA-benchmark facilities.

(ii) Certify their product is only made of natural plant, silk, or hair fiber with no other additives.

(iii) Pay a certification fee; such revenue collected will be used to offset administrative costs for product review and costs for facilities that process products/materials that do not break down within a typical cycle.

c. In making this determination, CalRecycle shall:

(i) Evaluate if the item meets the State definition of recyclable or compostable, including not containing the compounds identified in (1).

(ii) Determine if the items being proposed have any persistent compounds that would survive the recycling or composting process, and, if so, would have the potential to cause serious or irreversible harm.

(iii) Bring in additional stakeholders, scientists, and community members for further review as needed.

d. CalRecycle may conditionally approve or provide limited approval for additives or ingredients where the entire impact is not yet certain if the department determines that current research does not support evidence of potential harm. In cases of uncertainty, the Department shall rely on the Precautionary Principle as a guide.

e. Any item of food serviceware or food-contact packaging that has either been rejected or has not yet been evaluated must include a conspicuous label informing the consumer that the product is not recyclable or compostable and should not be put in the recycling or composting bin.

(4) The legislature should enact legislation prohibiting the distribution and/or sale, of products containing any PFAS, such as but not limited to, food packaging and food containers, personal care products, juvenile products, pet products, and textiles.

(5) Revising of code sections for proper coding of contaminants including Public Resource Code, Division 30, 40000-49620, Part 3 commencing with Section 42000, Part 7 commencing with Section 48700, and other sections of code related to particular problem products.

(6) CalRecycle should continue to work with this Commission and other relevant stakeholders to further identify and prioritize products that are most problematic for public health and safety, the environment, and the resource recovery system.

**Definitions:**

*Precautionary Principle:* "Precautionary Principle" a working definition of United Nations Educational, Scientific, and Cultural Organization, World Commission on the Ethics of Scientific Knowledge and Technology (UNESCO, COMEST), The Precautionary Principle, March 2005:

1. When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. 2. Morally unacceptable harm refers to harm to humans or the environment that is 1. threatening to human life or health, or

2. serious and effectively irreversible, or

3. inequitable to present or future generations, or

4. imposed without adequate consideration of the human rights of those affected. 3. The judgment of plausibility should be grounded in scientific analysis. Analysis ought to be ongoing so that chosen actions are subject to review.

4. Uncertainty may apply to, but need not be limited to, causality or the bounds of the possible harm.

5. Actions are interventions that are undertaken before harm occurs that seek to avoid or diminish the harm. Actions should be chosen that is proportional to the seriousness of the potential harm, with consideration of their positive and negative consequences, and with an assessment of the moral implications of both action and inaction. The choice of action should be the result of a participatory process.

*Chemical:* BPC, 19094(a)(3) “Chemical” means either of the following:

(A) An organic or inorganic substance of a particular molecular identity, including any combination of those substances occurring, in whole or in part, as a result of a chemical reaction or occurring in nature, and any element, ion, or uncombined radical, and any degradant, metabolite, or the reaction product of a substance with a particular molecular identity.

(B) A chemical ingredient, which means a substance comprising one or more substances described in subparagraph (A).

# Policy 21-31: CalRecycle Outreach to Prevent Contamination and Reduce Waste

**Author:** Tedd Ward

**Adopted:** December 15, 2021

## **Addresses Which Commission Goals:**

1. 75% goal following waste management hierarchy of waste reduction first, then recycling & composting, then disposal environmentally safe transformation and land disposal.
2. Market Development (increase market demand for post-consumer waste materials, increase demand for recycled content products, promote high quality feedstocks, promote competitive collection and use of secondary waste materials),
3. Meet methane emission reduction goals to reduce organics disposed in landfills (50% by 2020, and 75% by 2025 from 2014 levels);
4. Clarify products that are recyclable and compostable;
5. Provide feedback to CalRecycle on public messaging to recycle properly and minimize contamination.

**Background:** CalRecycle has budgeted outreach resources to reduce contamination so customers can recycle right and compost correctly. Reducing introduction of new contaminants and reducing confusion about what is recyclable and compostable must be central to those efforts. As the core decision-makers regarding the design and compatibility of packaging and products with California's recovery goals and programs are manufacturers and packagers, clear modes of outreach oriented to such producers should be major elements of all CalRecycle's outreach programs intended to reduce contamination.

Since 1989, PRC Section 40051 has affirmed source reduction as the top priority strategy to achieve California's recovery goals for which CalRecycle is responsible. Those recovery goals now stand at 75% and have been extended to change management of organics to reduce methane generation in landfills. Despite these lofty goals, recovery rates have declined significantly in recent years. Section 40196 of the California Public Resources Code defines source reduction as any action which causes a net reduction in the generation of solid waste. In other words, CalRecycle's mandated first strategy to help California meet recovery goals is to promote actions that reduce waste before it is generated.

Through current messaging and outreach, CalRecycle will drive much of how this and future generations of California rescue food, make clean compost and recycle right. Community outreach campaigns for recovery collections have historically focused on the diversity of communities of residents and businesses placing materials into bins. Such outreach implicitly presumes most people can learn to quickly identify what does or does not belong in each container. Local jurisdictions can continue to recycle and compost materials that are easy to identify, separate and market, but new harder to recycle products with new chemistries and inseparable multi-material components continue to be an increasing fraction of discards.

In a 2021 statewide [survey](#), though 50-70% of California households reported that they placed what they thought was recyclable into the recycling bin, between 25% and 40% were confused into thinking non-recyclable items like expanded polystyrene cups, plastic bread bags, cookie wrappers or juice pouches were recyclable. So those confusing items were reliably placed in the wrong bins, leading to contamination. That same survey showed 39% relied upon the chasing arrows label to determine if an item belongs in the recycling cart, though that symbol has frequently been mis-applied. The Commission hopes the process under SB 343 will reduce some of the confusion related to chasing arrows. In the interim, CalRecycle should use the findings under SB 1335 to begin outreach to producers.

Time has come for significant educational and outreach resources to be directed upstream to the innovative companies based in and attracted to California markets that can help meet these goals, acting to reduce the confusion associated with the current myriad product and packages that make separation for effective recovery confusing and challenging. Until and unless these factors are addressed more directly, current factors contributing to customer confusion can be expected to continue to grow.

Producers and packagers select materials, direct product design and information on their packages. When that information is confusing, customers are less likely to recycle right or compost correctly. As customer confusion increases, so does contamination in recovery streams. At least some manufacturers and packagers are directly responsible for these common sources of confusion, and it is likely that some other manufacturers have ideas about how to address these concerns. CalRecycle can and should play a larger role in addressing issues such as:

- Incorrect or misleading labels improperly claiming recyclability or compostability, 'flushability,' biodegradable, etc. despite local and state limitations
- products that look similar or identical but require different management methods
- multiple materials layered, interwoven or affixed as part of a single product or package with differing management for sub-parts
- detachable layers of materials that impede the recyclability and/or compostability of that item or package - additional layers of shrink-wrap, labels, and other affixed or detachable parts that are contaminants
- inclusion of liquids or hazardous solids in products that do not have a clearly defined management mechanism or system or method of removal, such as vape pens.
- Inability to repair or return products and limited durability of many products without viable recovery options
- complicated or impractical pre-disposal separation instructions

- electronic products that cannot be opened for battery replacement, repair, or removal of circuitry thus limiting potential for recycling
- continuance of business models where products and packages are sold – even hazardous ones – with few tangible associated responsibilities for any rescue, recycling, composting or end-of-life management
- increases in on-line shopping and package delivery systems and associated packaging that has limited or no recyclability and for which manufacturers or retailers have no recovery options for the customer

As customer confusion leads to contamination in recycling and composting streams, CalRecycle has an opportunity to direct outreach and training to producers' trade associations with an intent to provide producers, packagers and larger retailers with information regarding the recyclability of materials they may use in their products or packages, how they can take steps to reduce customer confusion.

CalRecycle has constructively engaged producers with respect to packaging for nearly a decade, and much longer for beverage containers. The following is an excerpt of CalRecycle's webpages on waste reduction in packaging:

“The department has focused efforts since 2012 by engaging all stakeholders to identify and explore opportunities relative to packaging as one part of a comprehensive set of strategies to reach the statewide 75 percent goal.



## CalRecycle Packaging-Related Programs

CalRecycle has several packaging related programs including:

- [Rigid Plastic Packaging Container Program](#)
- [Plastic Carryout Bag Ban](#)
- [Recycled-Content Trash Bag Program](#)
- [Mandatory Commercial Recycling Program](#)
- [Beverage Container Recycling Program](#)
- [Hospital Blue Wrap Collection”](#)

The societal and persisting environmental costs of litter and improper disposal of packaging includes servicing clogged sewer and storm drain systems, and increasing persistent fragmenting pollutants in soils, waterways, river and ocean debris. These costs are real and increasing – and those costs are not included in the purchase price nor equitably shared. Reducing the increase of these persistent pollutants will require systemic approaches.

As local governments are being called to invest in food recovery systems, the packaging of such items must be considered concurrently. As rescued pre-packaged foods are often distributed to unhoused persons and families, planning for recovery of associated packaging must also be considered or such programs will risk also becoming programs for dissemination of food-packaging related litter.

The inability for California to move closer to our recovery goals while the discard streams we hope to recover have higher levels of contamination and hazards are two trends that must be reversed. CalRecycle cannot be expected to educate the public to recover 75% of a discard stream that is increasingly confusing, contaminated and less recoverable. State agencies have historically not engaged in producer-directed outreach as this policy proposes, allowing products to flow unimpeded into the market and placing directives mostly on and through local governments. This significant change in strategy is necessary because the elements of confusion that lead to contamination and reduced recovery for the most part cannot effectively be addressed by the general public or local governments.

**Purpose:** CalRecycle's outreach programs should embrace waste prevention as a top priority. To reduce contamination in California's recycling, composting and stormwater programs, CalRecycle should develop proactive outreach and communications to reduce the introduction of such contaminants at the source as the highest priority focus, while continuing its role coordinating and harmonizing broader outreach to the general public regarding proper separation. The sources of these contaminants in California's recovery streams have their origins in the choices of materials, methods and messaging made by product and packaging designers intended for sale in California. CalRecycle should initiate and maintain new official portals of communication to trade associations serving the majority of manufacturers, producers and packagers of products sold in California to help guide those decisions to support the State's waste reduction and recovery goals. CalRecycle could do this by enhancing and expanding existing packaging-related and waste prevention outreach portals.

CalRecycle could also enhance and expand outreach and networking communications to other entities that foster reuse, repair and salvage.

**Proposal(s):** Concurrent with the public outreach campaigns CalRecycle has started to develop to the general public regarding how to recycle right and compost correctly, CalRecycle should enhance, expand, initiate and maintain official portals of communication to trade associations serving the majority of manufacturers, producers and packagers of products sold in California. As related regulations and programs continue to change, there will be a continuing need to update such producer-oriented communications.

Furthermore, CalRecycle's Local Assistance and Market Development division should expand, enhance and make available tools and information that help support and foster the growth of source reduction programs implemented at the local government level. While some such outreach will be directed towards local governments, much will also need to be directed towards universities, libraries, community service organizations, and trade associations.

Building upon the webpages and outreach efforts CalRecycle has already developed, information to be presented within producer-oriented communication portals should be intended to be readily understood by the majority of manufacturers intending to sell products in California. While CalRecycle staff will continue to decide what information is presented through which portals, the following topics should be considered:

- Posting an updated list of recyclable packaging materials, and a separate list regarding compostability, including information on the process for determining or verifying claims of recyclability or compostability in California as detailed in January 2021 CalRecycle workshops re. SB 1335, and as will developed and promulgated under SB 343 (Allen).
- Communications related to packaging that reduce recyclability or increase confusion due to colors, shrink-wrap, caps, or labels. Should this Commission's policy recommendations related to design for recyclability for beverage containers and addressing shrink sleeves (20-16 and 20-17) be enacted, eliminating non-recyclable colored PET and shrink sleeves and caps that impede recycling would be prime topics to be addressed.
- Communications regarding packaging materials that are currently not recyclable or compostable in California, addressing product and packaging strategies and materials that may contribute to contamination, stormwater debris and/or litter.
- Continue development of a comprehensive, statewide, mandatory packaging policy model guided by an extensive stakeholder engagement *[from Scott Smithline's comments for 9/20/16 workshop*  
<https://www.calrecycle.ca.gov/ReduceWaste/Packaging/Events/> ]
- Communications prohibiting, discouraging or regulating the use of products and packaging that include or result in hazardous, explosive, flammable or unrecoverable product or packaging properties
- Communications regarding related training and certification requirements and opportunities for manufacturers and packaging professionals selling products in California, including communications related to waste prevention and environmental toxicology in product and packaging design
- Monitoring and enforcement of violations of related California laws and regulations



- Communications related to promotion and recognition of manufacturing and packaging companies and other partners constructively addressing these challenges, including recognition awards such as [Governor's Environmental and Economic Leadership Awards \(GEELA\)](#)
- Communicate regulations related to labelling and management requirements for consumer electronic devices, and documents related to how these programs may develop as described in the Future of Electronic Waste Management Report
- Develop measures to incentivize process and materials substitutions that reduce product and packaging toxicity, increase product life or recovery, reduce impediments to dismantling for parts salvage or materials recovery, or reduce contamination or pollution similar to the [MnTAP](#) program in Minnesota

Some of this information is already available, however it is not currently structured for ease of access by product design and packaging engineers who seek to modify their products to be in better compliance with California's laws and environmental goals. Such outreach programs should have simple modes to address questions like: "Is the following packaging resin we are considering for packaging recyclable in California, and if it isn't, what are other possible choices? If we added a shrink wrap label, would that be allowed, or could that interfere with our assertion that the package is recyclable?"

Though the greatest potential source reduction benefits may be associated with initiating new producer-focused outreach as described above, CalRecycle should also expand and enhance outreach and communications to support expansion of source reduction efforts and programs including reuse, repair, salvage and resale by local and regional governments, trade associations, educational and training institutions, and groups representing entities engaged in aspects of waste prevention, as well as documenting the costs for cleaning up such materials improperly disposed or littered. The topics and strategies for such outreach should include:

- Communications intended to foster support and expansion of the following waste prevention sectors of California's economy:
  - **Food rescue:** Gleaning and redistribution, packaging management and recovery
  - **Composting:** Community, on-site and backyard composting and carbon farming programs
  - **Design to Reduce Waste:** Materials substitution for reducing hazards, LEED architecture, and xeriscaping
  - **Thrift shops:** Consignment, resale of clothing, furniture and appliances, and antique shops
  - **Vehicles:** Repair, restoration and salvage
  - **Building Materials:** Deconstruction: salvage and resale of fixtures and materials e.g. Habitat for Humanity ReStores
  - **Computer / Electronics:** Repair, salvage and resale e.g. Fixit Clinics
  - **Reusable transport products:** Slip sheets, reusable pallet netting
  - **Reusable and refillable packaging:** E.g LOOP

- **Outreach and education** Regarding waste prevention and reuse, libraries and other modes of sharing and goods re-circulation, repair and salvage
- Training and certification communications could include communications with the California's universities encouraging the inclusion of environmental toxicology courses for completion of chemical, manufacturing and packaging engineer degrees. Manufacturing and packaging engineers' coursework should include coursework and training in design for recovery
- Communications related to surveys of processors or recyclables and organics, as well as wastewater treatment plant managers and stormwater pollution control managers regarding the materials or products that comprise the largest fraction of contaminants, including an estimate of the annual cost for removing such contaminants in California.
- CalRecycle could more prominently feature the work addressing illegal dumping and cleanups from the Illegal Dumping Technical Advisory Committee, and include annual estimates of the annual cleanup costs expended by all state and local governments and volunteer organizations, including removal and related repair costs for stormdrains and wastewater treatment plants. This annual assessment should include discussion of the most prevalent items and materials collected, with those projected costs apportioned to manufacturers of those items to the extent practical. These modes of tracking and reporting materials, products, costs and impacts of wastes that have not been prevented can help inform and guide evolving waste prevention efforts and programs.

A simple measure of the degree to which waste prevention has been made a priority is the proportion of CalRecycle resources devoted to outreach efforts as described above divided by the amount of resources devoted to community and customer outreach focusing on proper separation and discard. If this ratio is less than one, outreach to producers should be increased the following budget year – at least until California meets our recovery goals.

**Related Issues:** This policy proposal relates to all policies relating to definitions of reusable, recyclable and compostable in California, including Commission Policies 20-08 regarding the enhanced role of the Governor's Office of Business and Economic Development, 20-13 regarding Right to Repair, 20-15 regarding What is Recyclable, Policies 20-16 and 20-17 regarding Design for Recyclability, 20-18 Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling, 20-19 regarding Compostable Products Certification, 21-21 regarding Correcting Counterproductive Incentives, 21-23 regarding Redefining Reusable Food Service Packaging and 21-30 regarding a Label System for Products and Post-consumer Management.

**Possible 2022 Legislative Priority?** The bulk of this policy recommendation is feedback to CalRecycle on public messaging regarding recycling properly and minimizing contamination in the context of their mandated priority of strategies. As such, the enhancement and expansion, and shifting emphasis of these communications portals does not require additional legislation. As waste prevention has been the legislated priority strategy since

1990, CalRecycle does not need legislation to develop producer-focused outreach portals to provide clarity regarding what can be done and is expected of manufacturers and packagers to prevent waste, contamination, and more effectively move towards meeting California's recovery goals.

Both content and emphasis of the proposed outreach portals, however, will be shaped by future legislation and regulation. For example, the improvements to California's management of consumer electronic devices as described in the Future of Electronic Waste Management Report - produced after years of stakeholder engagement - remain contingent on further legislative action.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Partially. Some of these communications portals could be joint efforts with other agencies such as the Department of Toxic Substances Control in the case of hazardous materials, Regional Water Quality Control Boards in the case of stormwater debris, and the Coastal Commission for beach debris. Other communications portals could be developed with universities, similar to the [Minnesota Technical Assistance Program](#) through the University of Minnesota.

**Does this proposal require additional funding or changes to resource allocation?** CalRecycle may need to make some internal adjustments regarding staffing or contractor responsibilities and tasks. This proposal is primarily a recommendation for CalRecycle to re-orient and focus outreach resources intended to reduce contamination in recovery streams to include strategies directed toward producers as a source reduction strategy, which is the legislated priority for this agency.

# Policy 20-08: Governor's Office of Business and Economic Development (GO-Biz) Enhanced Role

**Author(s):** John Davis, Heidi Sanborn

**Adopted:** 18 December 2020

**Background:** The Governor's Office of Business and Economic Development (GO-Biz) was created by Governor Edmund G. Brown Jr. to serve as California's single point of contact for economic development and job creation efforts. GO-Biz offers a range of services to business owners including: attraction, retention and expansion services, site selection, permit streamlining, clearing of regulatory hurdles, small business assistance, international trade development, and assistance with state government <https://business.ca.gov/>

**Purpose(s):** The Governor's Office of Business and Economic Development (GOBiz) leads the state's efforts to create jobs, promote economic development and provide direct business assistance. They can play an essential role in expanded California recycling and organics management infrastructure by identifying incentives, selecting sites, assistance with regulatory compliance and permitting, facilitating foreign investment and export opportunities.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Yes, Governor's Office of Business and Economic Development

**Possible 2021 Legislative Priority?** Unnecessary

**Does this proposal require additional funding or changes to resource allocation?**  
Redirection of existing staff

**Proposal(s):**

The following recommendations would enhance [GOBiz's](#) capacity to serve recycling and organics management operations.

1. Assign a dedicated GOBiz workgroup for recycling manufacturing and organics management projects
2. Designate a GOBiz liaison for Essential/Significant projects under CalEPA consolidated permitting
3. Include reuse, repair, organics and recycling manufacturing in [CalGold](#)
4. Coordinate business financing options with CalRecycle and local government market development efforts
5. Share job development and training assistance, including focus on Environmental Justice (CalEnviroScreen) communities, with CalRecycle and local market development identified businesses

**Related Issues:** This proposal is related to the CalRecycle Market Development and CalEPA Consolidated Permitting proposals

# **Policy 20-07: Consolidated Permit Process Utilization and Enhancement**

**Committee:** Market Development then Organics

**Author(s):** John Davis, Joseph Kalpakoff, Alex Oseguera

**Adopted: 18 December 2020**

**Background:** Public Resources Code Section 71000 et seq. comprises The Environmental Protection Permit Reform Act of 1993. The Act allows a permit applicant to request that one agency coordinate all state environmental permits, including permits issued by regional water boards and air pollution control districts. A Consolidated Permit Process is described in detail beginning in PRC Section 71020.

The Permit Streamlining Act (Government Code Section 65920 et. seq.) sets out local government permitting obligations. Local government development agreements are authorized in Government Code Section 65864 et. seq. Development agreements are contracts negotiated between project proponents and public agencies that govern the land uses that may be allowed in a particular project. Although subject to negotiation, allowable land uses must be consistent with the local planning policies formulated by the legislative body through its general plan, and consistent with any applicable specific plan

The consolidated permit process helps facilitate permitting decisions by providing a single point of contact for multiple permits, identifying needed permits and information earlier in the permitting process, and reducing the need to provide duplicate information to different agencies. However, the consolidated permitting process does not authorize CalEPA to require local permitting authorities to participate in this process. Furthermore, the consolidated permit process should prioritize facilities that contribute to meeting the State of California's recycling and organic goals. Specifically, projects should be provided a priority classification and permitting assistance if the project demonstrates air emission and recycling benefits as compared to established air emission and recycling baselines.

Under the existing process, the Secretary of CalEPA reviews the information and must designate a consolidated permit agency within 30 days of receiving a complete request. Within five days, the consolidated permit agency must notify the applicant of the designation and schedule a meeting to occur within 15 days of the designation for representatives of all participating permitting agencies to meet with the applicant.

The consolidated permit agency will provide each participating agency and the applicant the information needed to complete each permit, and the parties need to agree to a plan, including timelines for each participating agency to process the permit. Agencies establish timelines for determining the completeness of the application, reviewing the applications, processing each permit, and for consolidating the issued permits.

Following the meeting, applications are submitted to the permitting agencies, and each agency has 30 days to determine if the application is complete.

The agreed upon plan guides the participating agencies' processing of the application and review of information. The agencies can request additional information to clarify or supplement the information the applicant originally provided within 30 days of receiving the application. The consolidated permit agency is responsible for ensuring participating agencies perform the work needed to process the permits within the agreed-upon timelines. The consolidated permit agency must compile permits and provide them to the applicant within 30 days after the last participating agency issues its permit.

This proposal addresses the goal of PRC 42005(b)(1) Increasing market demand for postconsumer waste materials and secondary waste materials available due to California's source reduction and recycling programs. Additionally, it should highlight the air emission benefits and material management enhancement of the project.

**Purpose(s):** The goal to increase the processing infrastructure and market demand for California post-consumer waste materials and secondary waste materials will only be met by assuring there is the necessary infrastructure and demand for material supplies and high quality feedstocks. A more effective and efficient permitting process will provide increased certainty and reduce investment risk for environmentally beneficial projects. An effective and timely permitting process will increase the number of entrepreneurs and innovative players willing to invest in projects that assist with meeting the state's 21<sup>st</sup> Century Green Circular Economy goals.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Yes, CalEPA

**Possible 2021 Legislative Priority?** Unnecessary

**Does this proposal require additional funding or changes to resource allocation?**

Redirection of existing staff with clear guidelines, prioritization and expedited timelines for permitting of environmentally beneficial projects.

**Proposal(s):**

Facility siting revolves around permits issued by local governments and state and regional environmental agencies. Critical to this proposal is communication between different regional agencies responsible for air and water quality protection with respect to review of facilities and technologies for resource recovery and composting. Coordinating those permits needs improvement if California is to meet its recycling goals and contribute to substantial greenhouse gas reduction. These recommendations are focused on removal of subject matter knowledge barriers, bureaucratic delays (green tape) and overcoming administrative obstacles (routine changes in permitting personnel that create unnecessary permitting delays). The Commission wishes to ensure that we are equally protective of all communities

and therefore wants to state clearly for the record that these recommendations are not intended to modify any permit conditions, requirements or authority.

The following recommendations are intended to increase the efficiency needed to accelerate worthy project permits by streamlining processes among Governor's Office of Business and Economic Development (GOBiz), CalEPA, CalRecycle, State and Regional Water Boards, Air Resources Board and Air Quality Management Districts, cities and counties, Local Enforcement Agencies, and other affected state or local agencies. Permit streamlining and consolidation should assist local source reduction activities including reuse and repair, demand creation projects as well as enhancements and/or development of composting and recycling projects by reducing cost overruns caused by green tape delays..

Involving local permitting agencies in the Consolidated Permitting Process plus including local requirements and timelines would assure a more fully consolidated process and sharing of project knowledge and information. It is important to highlight that governmental agencies' discretionary authority remains unchanged by these recommendations, and that the process does not guarantee permit issuance but aims to significantly reduce structural bottlenecks that have developed over time (green tape reduction).

1. Set a threshold for Significant Climate Impact priority for state and local coordination. Recycling and organics management projects reduce greenhouse gas emissions due to the volume of material handled and their associated emission reduction factors. "Significant" impacts would optimize facility throughput and be geographically distributed as needed to serve local and regional markets. Projects will be provided a priority classification and supplied permitting assistance if the project demonstrates air emission and recycling benefits as compared to established air emission and recycling baselines (e.g. significant reductions in VOC's).
2. Use a consolidated permit application and local development agreements to set out conditions needed to complete the permits.
3. Require permit completion within the project's stated completion date provided that the project developer proceeds as agreed in the process.. Agencies' discretionary authority remains unchanged by these recommendations, and the process does not guarantee permit issuance.
4. Undertake pilot projects for state and local streamlining around Significant recycling and organics management projects.
5. Designate a lead CalEPA contact for projects utilizing the Consolidated Permitting Process.
6. Clarify that GOBiz may initiate the Consolidated Permitting Process in coordination with CalEPA.
7. Authorize CalRecycle to initiate the permit process with CalEPA and act as permit agency for recycling and organics management projects.

The Market Development and Organic sub-committees acknowledge that the California Environmental Quality Act (CEQA) impacts permitting. The Committee intends to identify and encourage focus on resolving those impacts. Consideration will include use of statewide

Project Environmental Impact Reports for significant projects, and essential public service designations.

**Related Issues:** This proposal is related to the CalRecycle Market Development and GOBiz proposals



## **Policy 20-09: CalRecycle Market Development Focus**

**Authors:** John Davis, Manuel Medrano

**Adopted:** 18 December 18, 2020

**Background:** Public Resources Code 42000 finds that “market development is the key to increased, cost-effective recycling. PRC 42005(b)(1) calls for increasing market demand for post-consumer waste materials and secondary waste materials available due to California’s source reduction and recycling programs. PRC 42010 provides that local governments may propose property for inclusion as a recycling market development zone when “current waste management practices and conditions are favorable to the development of postconsumer waste material markets” and “designation as a recycling market development zone is necessary to assist in attracting private sector recycling investments to the area.” CalRecycle designates and redesignates zones following an application process describing local regulatory, tax and other incentives. The RMDZ loan program (PRC 42023.1) is administered by CalRecycle.

This proposal addresses the goal of PRC 42005(b)(1) Increasing market demand for post-consumer waste materials and secondary waste materials available due to California’s source reduction and recycling programs

**Purpose(s):** CalRecycle’s market development efforts are diffuse. Expertise in technologies, permitting, finance, research, and local assistance is spread among its divisions, sections and branches. This knowledge is invaluable but its diffusion means that no one is focused specifically on broad market development issues, challenges and opportunities.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** No

**Possible 2021 Legislative Priority?** Unnecessary

**Does this proposal require additional funding or changes to resource allocation?**  
Reallocation of existing staff

**Proposal(s):**

### Focus on Market Development

CalRecycle should create a centralized Market Development Unit staffed with business development, fiscal and economic analysis expertise to identify and recruit needed industries. CalRecycle should continue its agency-wide market development efforts. The new Market Development Unit would centralize those efforts.

A new Market Development Unit should create a framework to identify gaps in statewide recycling, organics, reuse and repair infrastructure; and prepare strategies with stakeholders to fill the gaps. Regional solid waste planning, West Coast collaboration, and US EPA’s national markets efforts should be part of that framework along with business groups and trade associations.

California's colleges and universities are essential research and development hubs, and may collaborate with business groups to create innovation hubs and statewide competitions to develop new technologies for recycling manufacturing and organic management projects. Higher education institutions also may provide input on training opportunities and emerging markets analysis. The framework also should consider developing investment opportunities in reuse, repair, recycling manufacturing and organic waste management projects via national and international invitation events.

The Market Development Committee supports concepts that the state incentivizes essential reuse, repair, recycling, and composting businesses through tax abatement and excess land donation. We will consider detailed recommendations by June 2021..

Priorities for the new CalRecycle's Market Development Unit include both traditional economic development approaches, and industry specific initiatives, including the following:

- Approximately 10,000,000 tons of paper fibers are exported annually from California ports, with about 80% generated in California. Recycled paper pulping is an emerging industry trend, avoiding bale contamination issues by creating market grade pulp for paper making. A successful market development effort focused on paper pulping would overcome reliance on bale exports, create local jobs and business opportunities, and strengthen California's recycling infrastructure. This effort could include siting assistance, local and state permitting coordination, feedstock identification and acquisition, financing options.
- Existing tax incentive programs such as CAEFTA could be focused on prioritizing end use markets for recovered materials.
- California's economy offers potential to expand existing business use of recycled materials by working to identify manufacturers who could substitute virgin materials for recycled feedstock. Business development tools can mine databases to identify those manufacturers, and market development professionals could work with those manufacturers to convert to recycled feedstock.
- Myriad opportunities exist to work with existing small reuse and repair businesses. Statewide source reduction can be enhanced by identifying and responding to their needs, especially expansion and business start-up potential to replace single-use items.

### Communication

Economic development is local, occurring daily in communities across the state. CalRecycle's Market Development Unit needs to mesh with local communities and not impose one-size-fits-all solutions.

CalRecycle should track and share market information regularly (at least monthly) including pricing, end user destinations (export/domestic/in-state), allowable contamination limits, market trends and opportunities.

CalRecycle should create a communication network including local government, collectors, processing, brokers, colleges and universities, businesses and manufacturers who share the

goal of enhanced market development. The Northeast Recycling Coalition is a model for this sort of information sharing. The communication network should collect information from CalRecycle divisions as well, and disseminate information to those divisions.

Recycling Market Development Zone Administrators can be useful in structuring and delivering focused CalRecycle market development assistance. Coordinating and sharing GOBiz requests and outside financing assistance responses with ZAs is a first step.

**Related Issues:** This proposal is related to the RMDZ Loan Program proposal

# Policy 20-06: Recycling Market Development Zone Loan Program

**Author(s):** John Davis, Manuel Medrano

**Adopted:** 18 December 2020

**Background:** The Recycling Market Development Zone loan program (PRC 42023.1) is administered by CalRecycle. This revolving loan program has lent over \$149 million to 190 borrowers since 1993. The Recycling Market Development Revolving Loan Subaccount (Subaccount) includes loan repayments, points, fees and interest. The Subaccount funds CalRecycle's loan program administration; while application fees pay for the department's cost of processing applications for loans. PRC 42023.4 specifies loan requirements. The highest priority for funding is to projects that demonstrate increased market demand for recycling that project's type of postconsumer waste material. Loan terms shall not exceed 10 years, or 15 years if collateralized by real estate. Financing is no more than \$2million or  $\frac{3}{4}$  of the project cost. CalRecycle allows additional loans from the same borrower. The current loan interest rate is 4% fixed. However the statute indicates that borrowers should repay principal "plus interest on the basis of the rate of return for money in the Surplus Money Investment Fund at the time of the loan commitment." The SMIF rate on September 30, 2020 is 0.698%.

This proposal addresses the goal of PRC 42005(b)(1) Increasing market demand for post-consumer waste materials and secondary waste materials available due to California's source reduction and recycling programs.

**Purpose(s):** Most RMDZ loan activity occurred during the program's first 13 years. 71% of loans representing 57% of value were issued between 1993 and 2005, averaging ten loans annually during that time. The average is four loans per year since 2006, although the average value has increased from approximately \$633,000 to nearly \$1,150,000. The recommendation is to cooperatively restructure the RMDZ loan program around consensus recommendations from ZAs and CalRecycle, based on input from previous borrowers and applicants. The current loan structure favors equipment purchases over real estate or operating capital.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** The current \$2 million maximum loan amount is capped by legislation.

**Possible 2021 Legislative Priority?** Not highest priority, should be considered as part of other recommended actions

**Does this proposal require additional funding or changes to resource allocation?**  
Reducing the loan interest rate eventually would reduce funds available for program administration

**Proposal(s):**

- Evaluate the current policy and procedures of the RMDZ loan program to achieve the following results:
  - a) Accelerate the loan approval process within 30 days of CalRecycle receiving a complete loan application.
  - b) Refer potential projects immediately to CalRecycle loan staff for eligibility determination and initial intake.
  - c) Create an online loan application form to be processed by loan staff.
  - d) Reduce the loan interest rate
- Perform a comprehensive loan fund review to secure perpetuity
- Consider issuing an I-Bank bond secured by loan repayments to increase amount of loan funds available
- Increase the overall loan amount to focus on highest priority materials and financing needs per needs in the state based on exported material and shovel-ready projects to address a deficit.
- Offer a microloan program to offer loans from \$5,000-\$75,000

**Related Issues:** This proposal is related to the CalRecycle Market Development Focus proposal

## **Policy 20-05: State Agency Buy Recycled Campaign**

**Date(s) before full Commission:** October 7, October 21

**Author(s):** Heidi Sanborn, John Davis

**Adopted:** 18 December 2020

**Background:** The State Agency Buy Recycled Campaign (SABRC) is a joint effort between CalRecycle and the Department of General Services (DGS) to implement state laws requiring state agencies and the Legislature to purchase recycled-content products (RCP) and track those purchases.

SABRC compliance was 80% of qualified purchases in 2018/19 (\$336 million compliant, \$82 million non-compliant), representing 13% of statewide product purchases.

**Purpose(s):** Update and enhance SABRC by codifying enforcement, expanding coverage, requiring regular training, verifying product claims; and focusing on durable, reusable, refillable and repairable options.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle? Yes.** CalRecycle needs the authority to ask for more detailed reports and have an enforcement mechanism to ensure state agencies report and are held accountable if they fail to purchase the products. CalRecycle administers SABRC jointly with DGS.

**Possible 2021 Legislative Priority? Yes** – the State of California has huge purchasing power and the ability to use it to drive markets for recycled content products or products with no toxics or designed to be durable and repairable. Failing to fully use that purchasing power is simply failing to lead. We need the State to “vote with public dollars” for the products we want sold in California and not just set mandates for others to follow.

**Does this proposal require additional funding or changes to resource allocation?** Legislation is required to add an effective statutory enforcement mechanism for non-compliant state agencies through SABRC. Legislation may be needed to clarify that SABRC covers all purchases of goods by state agencies and contractors; and that SABRC includes service contracts where the contractor is purchasing reportable recycled products in the performance of the service contract.

**Proposal(s):** These recommendations may be accomplished by CalRecycle and DGS except as noted above for legislation.

1. Establish/work with a company to develop third party verification of recycled content, reuse and repair claims
2. Incentivize/include durable, reusable, refillable and repairable options when possible
3. Require repair information for all purchases, including electronics
4. Preference be given to vendors who provide the state with repair manuals, repair parts and diagnostic tools

5. Add an effective statutory enforcement mechanism for non-compliant state agencies through SABRC. Enforcement should be equivalent to level held by local jurisdictions.
6. Clarify that SABRC covers all purchases of goods by state agencies and contractors
7. Clarify that SABRC includes service contracts where the contractor is purchasing reportable recycled products in the performance of the service contract
8. Revise product categories and minimum content percentages and update every three years
9. Remove requirement to purchase only when available at the same or lesser total cost than non-recycled products
10. Require annual mandatory online training for procurement and contracting officers

# Policy 21-23: Redefine Reusable Food Service Packaging

Author: Tedd Ward

Adopted: June 2021

**Background:** The Commission is expected to comment on **California Code of Regulations, Title 14, Div.7, Ch.4, Art. 8, §17989.3. Reusable Food Service Packaging Criteria:**

## ***§17989.3. Reusable Food Service Packaging Criteria.***

***(a) A food service packaging item is “reusable” and shall be included on the List if the department determines it meets the requirements of Section 17989.2 and it either:***

***(1) Maintains its shape, structure, and function after [start second draft addition]780 [end second draft addition] [start second draft deletion] 125 [end second draft deletion] cycles in a cleaning and sanitizing process as defined in California Health and Safety Code Section 114101 and 114099.7, respectively, as demonstrated by a third-party certification entity; or***

***(2) The manufacturer of the food service packaging item provides an express warranty that the food service packaging item can be reused for its intended purpose for a minimum of one-year or the manufacturer will take back and replace the item at the manufacturer’s expense.***

Reducing the prevalence of single-use food service packaging is a worthy goal and the State Agency Buy Recycled Campaign is an important means for State agencies to demonstrate how this can be accomplished.

Over the past two decades, assertions about the extent to which plastics could be called recyclable or compostable have been core elements of the widespread confusion about the practical meaning of these terms. Thus, opening the door to widespread adoption of the term ‘reusable plastic’ should be approached with an acknowledgement of the problematic history of mixing plastics with terms of recovery, and anticipation of how the purveyors of these goods and services can be anticipated to respond.

Reuse is a process. If there is no dishwasher, even a washable dish is unlikely to be washed and reused. The above regulation is significantly deficient in that the department is not required to affirm there is a realistic potential for reuse for any packaging items claimed as ‘reusable’. For example, it appears that single-serving lidded yogurt cups could be called ‘reusable’, even if none were reused at any location where they were sold or distributed.

Fundamentally when low-cost materials are durable, purveyors of those materials can be expected to assert their reusability regardless of how many times such packages are used in practice. California’s recent ban of single-use plastic shopping bags provides another example. For many customers, at stores where they were once given plastic bags that were



a litter problem, they now pay for thicker plastic bags which pose a slightly different litter problem.

As relatively few food service packages have been labelled as 'reusable' prior to 2021, delaying implementation for labelling any new food service package as reusable is justified - except in cases where there are designated entities collecting, washing, and returning such package in each location where such items are clearly reused.

Furthermore, in cases where reuse practices are established - such as when breweries or dairies refill containers for their patrons - there is no need for additional labelling because the reuse process is already clear to the participants. State agencies have few existing relationships that would be disrupted by redefinition of reuse under this regulation.

This regulation also does not address health and environmental concerns regarding the generation of microplastics as 'reusable' plastic food service packaging are washed and reused.

Patricia Coelho is a researcher on packaging reuse and circular economy and co-coordinator of the hub Towards a Circular Economy and Society at Utrecht University in the Netherlands. The hub is a value chain-inclusive platform for scientists and stakeholders to jointly contribute to the transition to a more sustainable circular economy. Ms. Coelho identifies four key factors to employ to make reusable packaging more sustainable, and those are incorporated into the proposal below.

### **Proposal:**

**1. That CalRecycle draft regulations that include within the definition of Reusable Food Service Packaging a requirement for the practical reuse of such packaging to be demonstrable. Demonstrating the potential for reuse in itself is inadequate to allow such labelling to move forward. Reusable items or packages should be able to demonstrate that after delivery of the food service provided that there is at least an 80% performance standard that such item be washed or sanitized and refilled in preparation for the next service delivery.**

**2. Until another process can be developed, applications for food service packaging items to be placed on the 'Reusable' list should address how this package addresses each of these four factors:**

- the item is clearly designed to be reused for the intended function multiple times.
- decrease transport distances between steps in the supply chain, such as package supplier, food manufacturer, retailer and washing facility, and refilling site;
- ensure an increased number of reuse cycles, so the packaging is reused as many times as possible;
- reduce packaging production impacts by choosing a material with lower production emission and/or increasing the percentage of recycled content; and

- ensure that the packaging is recyclable and that it is recycled at the end of life instead of being incinerated or landfilled.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Perhaps. CalRecycle adopted the above regulations recently.

**Possible 2021 Legislative Priority?** No.

**Does this proposal require additional funding or changes to resource allocation?** No

**Related Issues:** Reuse is one of the potential labels for packages and materials being addressed by the Labelling and Media Committee.

# Policy 22-36: Designing for Recyclability

**Adopted:** June 1, 2022

**Authors:** Heidi Sanborn and Coby Skye

**Background:** Since the 1980s, many companies have marketed their consumer products as having an environmental benefit, such as being recyclable, compostable, or all-natural.<sup>9</sup> Non-recyclable/non-compostable products and materials and other hazardous items are often placed in curbside recycling bins due to confusion over labels and a desire by consumers to be more sustainable, unfortunately such items may cause harm to workers, trucks, and processing facilities. The damages include fires, costly processing/sorting, and contamination of bales from Material Recovery Facilities (MRFs). Similarly, composting facilities require additional labor for sorting and removing contaminants advertised as compostable, but which do not decompose.

Research by CalRecycle and The Recycling Partnership (TRP) shows that California's consumers improperly place non-recyclable materials/products in their curbside recycling bins because they are confused whether an item is compostable, recyclable, or disposable in curbside bins or is a hazardous waste that should be returned via mobile household hazardous waste (HHW) or other HHW events and locations. The chasing recycling arrows inappropriately placed on HHW packaging exasperates the contamination of recycling and composting streams.

Commonly recycled items comprised 22.8% of the State's 2018 single-family residential disposal.<sup>10</sup> TRP found on average that 20% of materials delivered to California MRFs were not accepted by local curbside recycling programs<sup>11</sup> and even materials listed as acceptable are often not recyclable.

## **The US Plastics Pact' Problematic and Unnecessary Material List.**

Consumer products that are not practically compostable or recyclable in municipal systems should be eliminated or redesigned into environmentally advantageous materials that can be recycled or truly composted. The US Plastics Pact (Pact) which includes businesses, not-for-profit organizations, governmental agencies, and research institutions recently released its Problematic and Unnecessary Materials List (List) as part of its plastics' circular economy initiative. The List includes plastic packaging items, components, or materials where consumption could be avoided through elimination, reuse, or substitution. The List also includes post-consumption items that are detrimental to the recycling or composting systems due to their format, composition, size, or residual contaminants.

The List proposes eliminating these items by 2025:

1. Intentionally added Per- and Polyfluoroalkyl Substances (PFAS)

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<sup>9</sup> Business for Social Responsibility, "[Eco-promising: communicating the environmental credentials of your products and services](#)," April 2008.

<sup>10</sup> CalRecycle, 2018 Disposal Facility-Based Characterization of Solid Waste in California, Table 8, page 22

<sup>11</sup> The Recycling Partnership, [2019 West Coast Contamination Initiative Research Report](#)

2. Non-Detectable Pigments such as Carbon Black
3. Opaque or Colored PET – Polyethylene Terephthalate bottles
4. Oxo-Degradable Additives, including oxo-biodegradable additives
5. PETG – Polyethylene Terephthalate Glycol in rigid packaging
6. Problematic Label Constructions – This includes adhesives, inks, materials (e.g., PETG, PVC, PLA, paper). Avoid formats/materials/features that render a package detrimental or non-recyclable per the APR Design® Guide. Labels should meet APR Preferred Guidance for coverage and compatibility and be tested in any areas where this is unclear.
7. PS – Polystyrene, including EPS (Expanded Polystyrene)
8. PVC – Polyvinyl Chloride, including PVDC (Polyvinylidene Chloride)
9. Cutlery
10. Stirrers
11. Straws

According to the FTC Green Guides, which are cross-referenced with Federal and State Law summarized at the end of this policy, a company can make a recyclable claim so long as the product is recyclable in at least 60% of the communities in which it is sold. Some products/materials no longer have local markets. For example, packaging using plastics #3-7 contaminate the waste stream yet they continue to be labeled with chasing arrows.

As directed by SB 1335, The Sustainable Packaging for the State of California Act of 2018, Public Resources Code 42370.2, CalRecycle is in the process of developing and maintaining a list of food service packaging that are reusable, recyclable, or compostable. Per SB 343 (Allen) which was signed into law in 2022, California will further improve labeling practices by July 2025 by suspending the use of the recycling chasing arrows on non-recyclable products/packaging.

As required by [Public Resources Code section 42005.5](#), the Commission is charged with identifying products that are recyclable and compostable and regularly collected in California curbside recycling programs. The Commission has developed seven criteria to determine recyclability and has developed a list of consumer item types that met the criteria requirements across the state and are recyclable statewide. In the June 2021 Recycling Commission Report, this initial list is titled California (CA) Statewide Recyclable List in Table 2.

The Commission has adopted recommendations in Policy 21-30: Label System for Products and Post-Consumer Management for labeling specific products to create a consistent, statewide label system that will provide clear and easy-to-understand guidance for California consumers to correctly manage used items. The label system will consist of three parts: product labels, curbside bin acceptance lists, and curbside bin labeling. A product cannot be claimed or labeled “recyclable” or “compostable” unless the products are on statewide compostable and recyclable lists which require credible and legal markets for recyclables or verified degradation in California composting facilities.

**Purpose(s):** The purpose of this policy recommendation is to end contaminants to curbside recycling. We propose doing that by banning the manufacture, sale and distribution of:

1. Non-compostable/non-recyclable products and materials,
2. Adhesives,
3. Embedded batteries and added batteries that are challenging to replace or remove
4. Composite materials that do not serve an essential function and have alternatives that can be reused, recycled, composted or are less hazardous or damaging to the environment.

California's consumers need an easy, quick, and accurate way to determine the correct management method for their used products and packaging. This policy will also establish labeling and design changes that provide clear information to consumers on whether they should dispose, compost, or recycle the product/material or dispose of the "hazardous" product/material through HHW special collections even if the hazardous contents were emptied.

This policy does not intend to define which products fall into recyclable, compostable, or hazardous categories as those definitions are currently defined by other regulations and criteria for what is recyclable and compostable is already discussed in the following adopted Commission policies:

- Policy 20-01 HHW EPR Framework
- Combined Policies 20-03/04: Precautionary Principle & Problem Products
- Policy 20-15: What is Recyclable?
- Policy 20-19: Compostable Products Certification and Approval for Composting or Anaerobic Digestion
- Policy 21-23: Redefine Reusable Food Service Packaging
- Policy 21-30: Label System for Products and Post-Consumer Management

However, this policy recommends prohibitions on non-recyclable and non-compostable products/materials if reusable, recyclable, or compostable alternatives exist, (e.g., PVC #3, plastic bags, film plastic, polystyrene #6, etc.) and if those products/materials placed in curbside recycling programs contaminate bales of other recyclables, clog MRF machinery, or cause fires.

This policy aims to motivate companies to redesign products to achieve acceptance on the compostable and "recyclable statewide lists" and avoid being banned from sale. Product manufacturers will have clear guidance and expectations on communicating compostability and recyclability claims and MRFs can focus on recovering a fixed set of products and marketable materials. There are wide-ranging benefits of this policy recommendation:

1. Minimized contamination by reducing consumer confusion
2. Reduced worker hazards and operating costs for MRFs
3. Increased commodity bale quality and value for MRFs
4. Easy-to-understand label guidance for consumers to correctly manage used items
5. Reduction of waste to landfills.

**Proposal(s):**

The proposal includes the following Actions:

**1) Creation of a Prohibited Unnecessary Products List (PUP List):**

- a. Using the Pact's list as a start, CalRecycle would develop simple and understandable statewide lists of products and materials that are prohibited for sale in California by 2025, unless they are redesigned. The PUP List shall be updated [periodically] and be cross referenced with other lists of the compostable and recyclable materials/products under extended producer responsibility programs, and hazardous materials/products.
- b. The PUP List shall be cross referenced with 1) California's list of hazardous wastes and materials as defined by the Department of Toxic Substance Control, 2) California (CA) Statewide Recyclable List developed by the Commission, and 3) a "compostable list" being developed. Per Policy 21-30: Label System for Products and Post-Consumer Management recommendations, CalRecycle is advised to develop simple and understandable statewide acceptance lists and graphics that are consistent with statewide compostable, recyclable, and hazardous lists. The definitions of hazardous, recyclable, and compostable and future updated material lists shall be consistent with CalRecycle's timeline for complying with The Sustainable Packaging for the State of California Act of 2018, Public Resources Code 42370.2, as well as compliance with SB 343 (2021).
- c. The PUP List should not have materials/products on California's list of hazardous wastes and materials, as defined by the Department of Toxic Substance Control.

**2) Ensure Designing for Recyclability is Consistent with Labeling Policy.**

This policy herein references Policy 21-30: Label System for Products and Post-Consumer Management proposal for its three-part label system which consists of 1) product labels, 2) curbside bin acceptance lists, and 3) curbside bin labeling. When the Commission identifies and updates full lists of "Recyclable" and "Compostable" products, those lists will be employed in the labeling system described in Policy 21-30 and cross referenced with the PUP List created under this policy.

**3) Enforcement and Monitoring**

CalRecycle shall periodically evaluate if various products/materials should be added or removed from the PUP List and the other lists mentioned above based on technological advancement and upgrades at MRFs that can process certain non-toxic, non-contaminating products on the PUP list.

CalRecycle shall collect product/material registration fees based on volume of sales, the cost to manage residual products/materials, or other fair scheme to protect small manufacturers or by offering a tiered rate structure with fee reductions based on verified recyclability or compostability.

For more information on policies related to enforcement please see adopted Combined Policies 20-03/04: Precautionary Principle & Problem Products

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Yes. CalRecycle would need to confirm with DTSC on what is considered hazardous material.

**Possible 2022 Legislative Priority?** Yes. Implementation of the policy would quickly achieve the benefits described above.

**Does this proposal require additional funding or changes to resource allocation?**

The prohibition would require the fees to be set on the HHW products first and the monies collected to fund CalRecycle's implementation of this program to develop and maintain the list of prohibited products and materials and work with local recycling authorities. Costs to change the materials to recyclable substitutes, the design, and the labels of prohibited products/materials would be borne by companies as normal cost of compliance. There also would be unknown ongoing costs for enforcement.

**Schedule for Implementation:** The estimated time required for implementation of the fee by July 2023 and the program by January 2025.

**Related Issues:** Problem Products, Precautionary Principle, Labeling, thermoforms, food grade packaging, batteries, composting organics.

### **Summary Review of Existing U.S. Federal and California State Label Laws**

The California Business and Professions Code §17580.5 makes it "unlawful for any person to make any untruthful, deceptive, or misleading environmental marketing claim, whether explicit or implied." Pursuant to that section, the term "environmental marketing claim" includes any claim contained in the Guides for use of Environmental Marketing Claims published by the FTC (the "Green Guides").<sup>12</sup> California has enacted SB 343 (Allen, 2021) that goes beyond these requirements.

The Federal Trade Commission's Green Guides<sup>13</sup> were issued to help marketers ensure that the claims they are making are true and substantiated. For "recyclable" claims, the FTC advises that:

- Producers should qualify recyclable claims when recycling facilities are not available to at least 60 percent of the consumers or communities where a product is sold.
- The lower the level of access to appropriate facilities, the more a marketer should emphasize the limited availability of recycling for the product.
- If recycling facilities for a product are not available to at least 60 percent of consumers or communities, a marketer can state, "This product may not be recyclable in your area."

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<sup>12</sup> [California Business and Professions Code § 17580.5](#)

<sup>13</sup> <https://www.ftc.gov/tips-advice/business-center/guidance/environmental-claims-summary-green-guides>

- If recycling facilities for a product are available to only a few consumers, a marketer should use stronger qualifying language: "This product is recyclable only in the few communities that have appropriate recycling programs."

For "compostable" claims:

- Producers who claim a product is compostable need competent and reliable scientific evidence that all materials in the product or package will break down into — or become part of — usable compost safely and in about the same time as the materials with which it is composted.
- Producers should qualify compostable claims if the product can't be composted at home safely or in a timely way.
- Producers also should qualify a claim that a product can be composted in a municipal or institutional facility if the facilities aren't available to a substantial majority of consumers.



# Policy 20-16: Design for Recyclability: Plastic Container Labels and Shrink Sleeves

**Committee:** Recycling

**Primary Authors:** Jan Dell and Nick Lapis

**Approved:** December 18, 2020

**Background:** Polyethylene terephthalate (PET) #1 and high density polyethylene (HDPE) #2 bottles and containers have strong recyclability potential in California, but some types of non-essential full body shrink sleeves and other labels are reducing recovery and are negatively impacting the economic viability of material recovery facilities (MRFs) and plastic reprocessors. A comprehensive description is given in the “**Background Detail and Technical Basis**” section below.

**Purpose(s):** The purpose of this policy recommendation is to increase bottle and container recovery and improve the technical and economic recyclability of plastic bottles by requiring product companies to only use labels and shrink sleeves that do not inhibit recycling.

There are wide-ranging benefits of this policy recommendation: ease of recycling for consumers, reduced contamination for material recovery facilities (MRFs), increased bale quality and value for MRFs, improved technical and economic processing for plastic reprocessors, increased recovery of plastic bottles and reduction of plastic waste to landfills. There are no costs to consumers, MRFs, plastic reprocessors, or city or state governments. Product companies’ ability to sell products in plastic bottles is not impacted, nor are there restrictions on their customers’ ability to purchase and consume the contents of the plastic bottles.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Yes. This would require a statutory change.

**Possible 2021 Legislative Priority?** Yes. Implementation of the policy would quickly increase beverage bottle recycling and reduce waste.

**Does this proposal require additional funding or changes to resource allocation?**

No, this approach would not require taxpayer funds other than promulgation of the legislation.

**Proposal(s):**

It is proposed that only products packaged in plastic bottles and containers with non-harmful labels and shrink sleeves be sold in California. The primary criteria for defining acceptable labels and shrink sleeves will be the Association of Plastic Recyclers Design® Guide. CalRecycle will also have authority to prohibit additional specific labels or shrink sleeves if California recycling and reprocessing companies provide evidence that an APR-approved

item is detrimental to their operations. For example, if a “washable ink” label requires excessive fresh water for processing, CalRecycle has the authority to prohibit use of that label in the state.

Exceptions to the policy will be made for medical or other products that require special labels to maintain product safety.

Note that tamper-proof plastic wraps on lids that must be removed for opening products would continue to be allowed.

**Schedule for Implementation:** The time required for implementation is eighteen months. The design changes address optional elements and are not essential to the function of the product. Commercially available alternatives exist and can be adopted by product companies within a year. Product companies are aware of the problematic labels and shrink sleeves have been identified in APR Design® Guides and other existing voluntary guidelines for years.

Many product companies have made commitments to eliminate problematic elements that prohibit recycling via their voluntary pledges to the New Plastics Economy Global Commitment<sup>14</sup>. Therefore, the product companies have shown that they understand that change is needed and the companies are not in a position to oppose legislation requiring the design changes.

#### **Related Issues:**

This policy recommendation supports the recycled content requirements set forth in California Law AB 793.

#### **Background Detail and Basis:**

According to plastic and recycling industry reports detailed below, contaminated plastic bottle and container bales is a top concern for technical and economic recycling. While voluntary design guidelines have existed for years, many product companies do not follow the guidelines and cause significant harm to recovery and recycling of plastic bottles.

Many product companies are increasingly using full body shrink sleeves and labels that are inconsistent with California’s recycling and processing infrastructure. Some designs are known to prevent proper sortation of the bottles in MRFs or harm operations of PET reclaimers.<sup>15</sup> Figure 1 shows an example of a Full Body Shrink Sleeve Label on a PET bottle. Figure 2 shows an example of a Full Body Shrink Sleeve Label on a HDPE bottle.

#### **Figure 1: Expanded Image of Full Body PETG Shrink Sleeve Label on PET #2 Bottle**

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<sup>14</sup> [New Plastics Economy Global Commitment](#)

<sup>15</sup> Plastics Recycling Update, “[Commercialization conundrum](#)”, March 6, 2018.



**Figure 2: Expanded Image of Full Body Shrink Sleeve Label on HDPE #2 Bottle**



This policy requires that product companies must change to labels that do not harm sortation and plastic recycling/reprocessing and do not require removal by customers. Alternative, non-harmful labels are commercially available.<sup>16</sup>

### Harms Caused by Full Body Shrink Sleeves

Several types of full body shrink sleeves on PET #1 and HDPE #2 bottles make them not sortable by optical scanners at MRFs. When the bottles are not correctly sorted, they may contaminate another material stream or be lost to the waste “residuals” stream.

PETG and PVC shrink sleeves are harmful to PET bottle recyclers because the PETG and PVC shrink sleeves cannot be separated in mechanical recycling water “sink-float” tanks. PETG and PVC materials have a specific gravity greater than one, so they sink along with PET (1.38 sp. gr.) in the tank. But the PETG and PVC labels have a lower melting point than PET. When the combined flake mixture is melted to form resin, the PETG or PVC melts first, causes clumps and harms PET drying equipment. Experts report that shrink sleeve labels can also bleed ink into wash water and stain flakes, reducing the quality of the recycled plastic.<sup>17</sup> Mechanical de-labelers are expensive and not effective. The PETG and PVC shrink sleeve label contamination causes material yield loss.

### Recycling and Retail Industry Design Guidelines

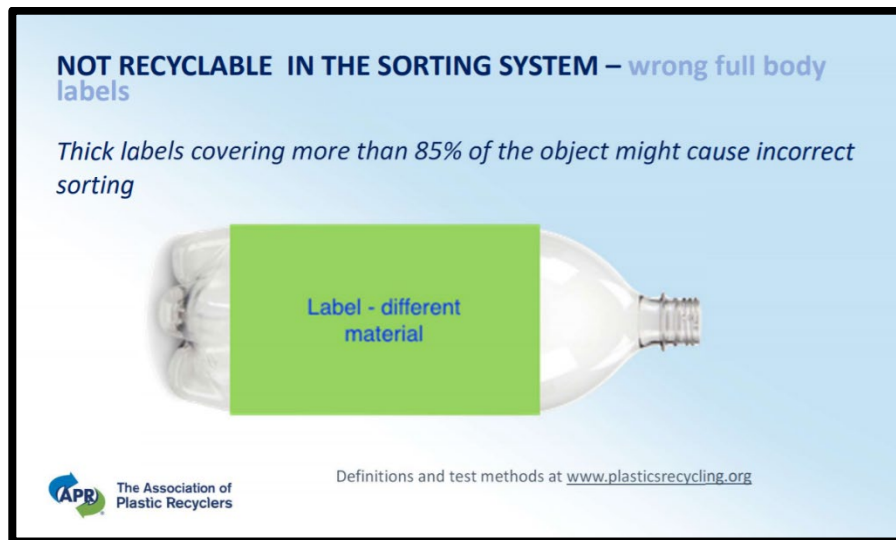
<sup>16</sup> Plastics Recycling Update, “[How a PET shrink sleeve label passed recyclability testing](#),” November 4, 2019.

<sup>17</sup> Plastics Recycling Update, “[Commercialization conundrum](#),” March 6, 2018.

Use of full body shrink sleeves is prohibited in the Design® Guides published by the Association of Plastic Recyclers (APR) and Walmart<sup>18</sup> for recyclable plastic products. APR and other recycling organizations have clearly communicated to product designers that certain types of full body shrink sleeves should not be employed on products, yet many companies ignore the guidance and put the burden on consumers to remove the shrink sleeve.

Figure 3 shows the APR guidance that labels on bottles exceeding 85% side coverage may cause the item to be sorted incorrectly.

**Figure 3: Not Recyclable Guidance by APR on Label Coverage<sup>19</sup>**



**NAPCOR** is the trade association for the PET Packaging Industry in the United States, Canada and Mexico.<sup>20</sup> In the 2017 Report on Postconsumer PET Container Recycling Activity in 2017, NAPCOR identified “design for recyclability” concerns including “labels that are difficult-to-remove or separate from PET or that block auto sort function; barrier layers added to PET to preserve product integrity and extend shelf-life; and metal integrated into PET packages, whether in closures, closure rings, can tops, or pump springs.”<sup>21</sup> To improve recovery and recycling of PET bottles, NAPCOR identified “recycling-compatible PET container design” as a key element.

**The Association of Plastic Recyclers (APR)** publishes a design guide to “help package design engineers at consumer brand companies and converters create packaging that is fully

<sup>18</sup> Walmart, “[The Recycling Playbook](#)”, Version 10/25/2019.

<sup>19</sup> Association of Plastic Recyclers, 2019 Web Seminar Education Series, “[HDPE and PP Packaging](#)”, September 12, 2019. [Slides and audio recording available on APR website.](#)

<sup>20</sup> [NAPCOR website.](#)

<sup>21</sup> [NAPCOR Report on Postconsumer PET Container Recycling Activity in 2017](#)

compatible with plastics recycling systems in North America.” The APR Design® Guide<sup>22</sup> provides detailed specifications to plastic product manufacturers, including requirements for label coverage and materials. In several 2019 public webinars, APR provided design guidance to product companies.<sup>23</sup> APR notes that contamination in the recycling stream by poor package design impacts recyclers and the brands themselves. Noncompatible sleeve labels and pressure sensitive labels were identified as two top problematic elements.

**ASTRX** is an initiative of The Recycling Partnership and the Sustainable Packaging Coalition.<sup>24</sup> In 2019, Applying Systems Thinking to Recycling (ASTRX) collected information on material flows by interviewing MRFs that sort recyclable materials and reprocessors that aggregate and convert materials and published the ASTRX Material Flow Study.<sup>25</sup> “The objective was to learn whether there are packaging types, materials or contaminants that present significant challenges for MRFs and the different material-type reprocessors, where specifically within the system they cause problems, and why.”<sup>26</sup> Full body shrink sleeves were identified as a top problem to both MRFs and plastic reprocessors. In MRFs, full shrink sleeves were reported to cause sortation issues and degradation of value of PET and HDPE bales. Plastic reprocessors reported that full shrink sleeves are causing “contamination in plastic bales that decreases bale yield; operational issues with de-labeler equipment requiring a lot of maintenance; sortation issues: the sorter sees the label and thinks it’s opaque and rejects the bottle.”

**Plastic Recycling Corporation of California (PRCC):** In the 2017 PRCC Case Study: Summary of Research Methods & Findings,<sup>27</sup> factors impacting bale quality included “full-wrap labels and non-compatible barrier bottles that are challenging to sort and separate in collection and processing and contaminant material such as paper and other plastic types (PLA, PVC, polystyrene) in the bales.”

## **Policy 20-17: Design for Recyclability: Beverage Containers**

**Committee:** Recycling

**Primary Author(s):** Jan Dell and Nick Lapis

**Adopted: December 18, 2020**

**Background:** Polyethylene terephthalate (PET) #1 bottles have strong recyclability potential in California, but two non-essential, optional design elements are reducing recovery and are negatively impacting the economic viability of material recovery facilities (MRFs) and plastic

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<sup>22</sup> [The Association of Plastic Recyclers \(APR\) Design® Guide for Plastics Recyclability](#)

<sup>23</sup> Association of Plastic Recyclers, [2019 Web Seminar Education Series](#).

<sup>24</sup> [ASTRX website](#), “About”.

<sup>25</sup> ASTRX, “[ASTRX Review of Material Flow at MRFS and Reprocessors](#)”, 2019.

<sup>26</sup> ASTRX, “[ASTRX Review of Material Flow at MRFS and Reprocessors](#)”, 2019.

<sup>27</sup> [2017 PRCC Case Study: Summary of Research Methods & Findings](#)

reprocessors. A comprehensive description is given in the “**Background Detail and Technical Basis**” section below.

**Purpose(s):** The purpose of this policy recommendation is to increase in-state bottle reclaiming and improve the technical and economic recyclability of plastic bottles by requiring product companies to eliminate two problematic, non-essential design elements. The specific design element changes are:

- (1) Require use of only clear plastic for PET beverage bottles.
- (2) Eliminate metal components on plastic beverage bottles.

There are wide-ranging benefits of this policy recommendation: ease of recycling for consumers, reduced contamination for material recovery facilities (MRFs), increased bale quality and value for MRFs, improved technical and economic processing for plastic reprocessors, increased recovery of plastic bottles and reduction of plastic waste to landfills. There are no costs to consumers, MRFs, plastic reprocessors, or city or state governments. Product companies’ ability to sell products in plastic bottles is not impacted, nor are there restrictions on their customers’ ability to purchase and consume the contents of the plastic bottles.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Yes, partially. A prohibition on these design elements would require legislation but creating differential processing fees for different uses of the same resin can be done under existing authority.

**Possible 2021 Legislative Priority?** Yes. Implementation of the policy would quickly increase beverage bottle recycling and reduce waste.

**Does this proposal require additional funding or changes to resource allocation?**

There are two strategies in this policy this policy:

- 1) Prohibition of the two design elements: This approach would not require taxpayer funds other than promulgation of the legislation.
- 2) Bifurcation of the processing fee paid by beverage manufacturers, with a separate fee for clear PET and colored PET. This might bring in additional revenue into the BCRF.

**Proposal(s):**

It is proposed that policies be adopted to achieve the following:

- (1) Require use of only clear plastic for PET beverage bottles.
- (2) Eliminate metal components on plastic beverage bottles.
- (3) Bifurcate the processing fee paid by beverage manufacturers for different colors of the same resin, if some colors are deemed to have a significantly higher cost of recycling.

**Schedule for Implementation:** The time required for implementation is one year. Product companies are already compliant with the policies in other countries. The design changes address optional elements and are not essential to the function of the product. Commercially available alternatives exist and can be adopted by product companies within a year. Product companies are aware of the problematic elements because the elements have been identified in existing voluntary guidelines.

**Related Issues:**

This policy recommendation supports the recycled content requirements set forth in California Law AB 793 by increasing the supply of readily recyclable RPET.

**Background Detail and Basis:**

1. Use of Clear Resin Only for PET Bottles

Use of only clear PET will improve collection, sortation and ultimate recovery of PET bottles in California.

Colored PET bottles have negligible market demand and are a serious source of contamination in PET bottle bales.<sup>28</sup> In a 2019 study carried out by PRCC in California,<sup>29</sup> PRCC “asked reclaimers whether adding a clear-only bale would improve their yields, and they felt it would.” The colored PET bottles also cause valuable clear PET bottles to be inadvertently disposed. In the 2019 study, PRCC stated: “During the bale analysis, project leaders saw colored PET was one of the areas where a lot of clear PET loss was occurring. That’s because colored PET makes up a high percentage of what’s removed from the bales, so more clear PET escapes with colored PET than with other contaminants.”

In the 2019 ASTRX Material Flow Study,<sup>30</sup> colored PET was identified by a plastic processor as having “low market demand and value.” The study quoted a plastic processor: “I get more and more frustrated with colored PET. No one wants it, and people think it’s HDPE so they salt and pepper it into our bales. Nobody wants to buy it.”

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<sup>28</sup> [Slipping Through the Cracks](#)”, Resource Recycling, Winter 2020

<sup>29</sup> “[Slipping Through the Cracks](#)”, Resource Recycling, Winter 2020.

<sup>30</sup> ASTRX, “[ASTRX Review of Material Flow at MRFS and Reprocessors](#)”, 2019.

Legal Precedence & Company Compliance on Clear PET Bottles: South Korea has enacted a legal requirement for clear PET bottles to improve recycling.<sup>31</sup> In Japan, beverage companies voluntarily stopped using colored PET bottles in 2001 to improve recycling. The same global beverage companies that market products in those countries also market products in California. The global beverage companies have complied by changing product design, proving that it is possible to do in California without hardship.

- **South Korea:** As part of South Korea's goal of reducing its plastic waste by half and doubling recycle rates from 34% to 70%, the country banned the use of colored PET, PVC and labels that cannot be easily removed during the recycling process. Violators of the regulations will be subject to suspension of sales, or a penalty of up to \$US 857,832.<sup>32</sup>
- **Japan:** In 2001 when the recycling rate was 31%, beverage companies voluntarily stopped production of colored plastic bottles to facilitate recycling.<sup>33</sup> This change has contributed to the increase in recycling of plastic bottles in Japan to 85%.<sup>34</sup>
- **Asia:** A study showed that a change from color PET to transparent PET will significantly increase the value of the plastic in the after-use market.<sup>35</sup>

Figure 1 shows colored plastic PET bottles sold in California. Figure 2 shows the same products sold in clear PET bottles in Japan.

### **Figure 1: Colored Plastic PET Bottles Sold in California**

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<sup>31</sup> Food Navigator-Asia, "[No colour, No PVC: South Korea bans hard-to-recycle plastic materials for F&B packaging](#)," (Feb 19, 2020)

<sup>32</sup> Food Navigator-Asia, "[No colour, No PVC: South Korea bans hard-to-recycle plastic materials for F&B packaging](#)," (Feb 19, 2020)

<sup>33</sup> Japan Times, "[Makers to can colored plastic bottles](#)," April 3, 2001.

<sup>34</sup> Financial Times, "[Japan Faces Up to Its Plastic Problem](#)," July 22, 2020.

<sup>35</sup> BeverageDaily.com, "[Transparent in the new green: Coca-Cola rolls out Sprite clear bottles to seven APAC countries](#)," July 7, 2020.





Figure 2: Clear Plastic PET Bottles Sold in Japan



## 2. Elimination of Metal Components on Plastic Bottles

Use of only plastic components on PET bottles will improve collection, sortation and ultimate recovery of PET bottles in California. In plastic processing operations, magnets don't move the metal outside the container and metal can break the shredders.

NAPCOR is the trade association for the PET Packaging Industry in the United States, Canada and Mexico.<sup>36</sup> In the 2017 Report on Postconsumer PET Container Recycling Activity in 2017, NAPCOR identified “design for recyclability” concerns including “**metal integrated into PET packages, whether in closures, closure rings, can tops, or pump springs.**”<sup>37</sup>

Association of Plastic Recyclers (APR) publishes a design guide to “help package design engineers at consumer brand companies and converters create packaging that is fully compatible with plastics recycling systems in North America.” The APR Design® Guide provides detailed specifications to plastic product manufacturers, including requirements for label coverage and materials. In several 2019 public webinars, APR provided design guidance to product companies.<sup>38</sup> APR notes that contamination in the recycling stream by poor package design impacts recyclers and the brands themselves. APR identifies metal components as a top problematic elements for PET recycling.

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<sup>36</sup> [NAPCOR website](#).

<sup>37</sup> [NAPCOR Report on Postconsumer PET Container Recycling Activity in 2017](#)

<sup>38</sup> Association of Plastic Recyclers, [2019 Web Seminar Education Series](#).

In 2019, Applying Systems Thinking to Recycling (ASTRX) collected information on material flows by interviewing MRFs that sort recyclable materials and reprocessors that aggregate and convert materials and published the ASTRX Material Flow Study.<sup>39</sup> The study found that closures with metal components are problematic for plastic recycling.

### (3) Tiered processing fees

Under the state's beverage container recycling program, CalRecycle assesses manufacturers a portion of the net cost of recycling their products. This has historically been split by resin type, but it is clear that there are instances where the same resin might have drastically different recycling costs and the program should reflect that.

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<sup>39</sup> ASTRX, "[ASTRX Review of Material Flow at MRFS and Reprocessors](#)", 2019.

# Policy 21-26: Hospitality Textile Recycling

**Adopted:** June 2, 2021

**Author:** John Davis

**Background:** Textile recycling is complicated as many fabrics have several blended fiber types and other design additives, such as closures and finishing chemicals, thereby deteriorating the recyclability of these products. Industry leaders have [identified commercial hospitality textiles](#) as low-hanging fruit and as more [homogeneous fiber](#) content, with an potential existing collection infrastructure already existing through industrial laundries. Textile recyclers are scoping hospitality textiles as a viable feedstock over clothing, which has more barriers to recycling, such as finishing chemicals, zippers, labels, etc. In September 2020, CPSC hosted a “Textile Stewardship Policy” meeting attended by major brands and industry associations discussing hospitality textiles as “low-hanging fruit”, which is aligned with the industry’s goals.

In 2018, synthetic clothing and other textiles were the 5th most common material thrown out by single-family households in California. By combining the subcategories of organic textiles (1.1%), synthetic and mixed textiles (1.6%), and shoes, leather, and purses (0.3%), textiles accounted for 3% of California’s overall waste in 2018. A recent [characterization](#) of unsellable textiles at a large thrift found 8% to be sheets, towels, fabric window coverings, and other similar products.

Hospitality textiles include sheets, towels, linens, workwear, and interior fabrics, such as mats and fabric window coverings. An [industrial laundry](#) can either be an on-premise laundry (OPL) or an independent facility servicing hospitality institutions (restaurants, hotels, and other related industries). Industrial laundries already collect [unusable textiles](#) rejected from use for a [variety of reasons](#) and need help with scaling up collection, sorting, and processing textile products to achieve the highest and best use.

Recycled fiber hospitality textiles will be highly desired as the textile industry as a whole has set voluntary recycled content goals. The Textile Exchange leads a working group for hospitality textiles. The [Home and Hospitality Round Table \(H+HRT\) Summit meeting](#) was held virtually on December 10, 2020 and identified textile collection as a priority for 2021.

Previous research has shown that more businesses, such as in the medical and tech industry, will be switching to reusable textiles to reduce [linen waste generation](#), [GHG impact](#), and the risk of [supply-chain disruptions](#), as seen with [single-use PPE during the COVID-19 pandemic](#). As industrial laundries grow in clientele and material types that could be washed, producer-funded recycling options provide cost relief for the textiles with no markets for reuse.

On April 14, 2021, an industry funded nonprofit, “Accelerating Circularity”, hosted a webinar and featured a “Towel” model they mapped as a realistic example of textile circularity in the US.

Figure. A model showing potential partnerships for a hospitality textile recycling program as presented by Accelerating Circularity on April 14, 2021.

# Towel Model



## Circular Towel Flow

- 1 Collectors: The Breakers, Palm Beach, FL - collection on site
- 2 Sorters: The Breakers, Palm Beach, FL - Sorting on site
- 3 Pre-processors: The Breakers, Palm Beach, FL - Laundry on site
- 4 Aggregators: Southeast
- 5 Recycler: Giotex Merida, Mexico
- 6 Fiber Manufacturer: Giotex, Merida, Mexico
- 7 Yarn Spinner: Giotex, Merida, Mexico
- 8 Fabric Mill: 1888 Mills, Griffin, GA
- 9 Finished Goods Maker: 1888 Mills, Griffin, GA
- 10 Brands: The Breakers, Palm Beach, FL



## Modeling & Linking Report Webinar

04/14/2021

Stewardship programs in California, such as carpet and mattresses, have invested consumer fee money in fiber collection and recycling infrastructure that will be co-beneficial for additional programs coming onboard with similar materials. For example, the mattress stewardship program landfills textiles since with no recycling markets and the California mattress consumer fee should NOT bear the burden of solving the entire problem.

This EPR program for hospitality textiles could be seen as proactive, leveling the playing field, and serve as an accelerator for textile product design that generate less GHG in fabric production and produce products that can easily be reused, repurposed, or recycled. The hospitality industry already [acknowledges an](#) urgent need for climate legislation, focused on reporting and performance. This will help to ensure that the responsibility for improving an environmentally appropriate sustainable supply is shared throughout the value chain, not just falling on government, but also be a responsibility for operators and investors as well.

**Purpose(s):** *Collection, sorting, repurposing, reusing, or recycling unusable hospitality textiles.*

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** *Yes. Legislation required. Interagency interaction with State Licensing Board, CalRecycle, and Public Health.*

**Possible 2021 Legislative Priority?** 2022 would be a good year to introduce this policy proposal as a bill. It is in the hospitality industry's interest to create their own program for the more reusable, recyclable, and potentially repurposed textile products that are easier to manage.

**Does this proposal require additional funding or changes to resource allocation?** No funding would come from the users of the products (i.e. hotels, restaurants, and other industries), as an EPR program assesses the fee to the manufacturers of the textile products. These fees would be used to fund the operation of a 501c3 nonprofit stewardship program that meets legislated performance goals and transparency requirements. Funds will cover oversight costs. Program costs will reduce as more textile product supply companies progress towards their voluntary recycled fiber minimum-content goals. Textile Exchange's 2030 Strategy: [Climate+](#) sets CO<sub>2</sub> emission reduction goals for producers while identifying preferred fibers, such as organic cotton and recycled polyester, as key switches for success.

**Proposal(s):**

The Health and Safety Code should be amended to that on or before January 1, 2025 all permitted industrial laundry facilities will offer segregated textile products for recycling to their commercial customers.

Collection entity: An industrial laundry can either be an on-premise laundry (OPL) or an independent laundry company servicing large institutions (restaurants, hotels, hospitals, industries) that require a constant flow of clean linen, work wear or uniforms. Industrial laundries can serve as the primary collection sites for their own materials and other sources of covered products, such as thrifts or uniform retailers.

Covered products: Work staff wearing apparel, underclothing, bedding, bedclothes, rags, or towels. Could be expanded to include all other interior fabrics, such as mats and fabric window coverings laundered at industrial laundries. Other potential products, not included in original statute definition, could be robes and duvets.

Responsible producers: Manufacturers of covered products selling covered products into California will pay into the Stewardship Organization(s). Not many hospitality textile brands overlap with consumer garment brands and therefore might not be widely recognizable brands.

Funding mechanism: All responsible producers/manufacturers will pay modulated fees based on:

1. Lower fees for both mono-fiber textiles and 100% natural fibers.
2. No fees for producers that:

- a. Use California-sourced natural fibers that are not treated with chemicals on the DTSC's Candidate Chemicals [list](#),
  - b. Use natural fibers on the USDA organic natural fibers list, or
  - c. Are B-corps with a takeback program that includes repair/reuse.
  - d. No fees for reusable diaper companies.
3. Phase-in higher post-consumer minimum recycled content, starting at 15% by 2030 and increasing regularly thereafter.

Fees paid on the covered products into a stewardship organization (SO) that carries out the program requirements (payment amounts determined in SO Plan) will be used to support industrial laundry facilities to collect and sort hospitality textiles for reuse, repair, and recycling from other laundries, thrift stores, and MRFs. Resident collection conveyed through thrifts and other curbside options. The SO must be a 501(c)3 with at least one repair representative and one thrift store representative on the board. SO funding should cover collection, transportation, sorting, repair and other recycling.

Convenient access standard: Designate industrial laundries to pool materials from other designated collection locations, such as other laundries, thrift stores, and other reuse organizations to send textiles for reuse and recycling.

Performance standards: Sort textiles no longer suitable for their initial intended purposes. Industrial laundries must prioritize reuse and repurpose over recycling by working with community partners, such as SPCA for animal use of sheets and towels.

Financial Incentives provided to:

1. Retailers and users of this product will receive financial incentives by reducing their disposal costs for unwanted textiles and providing free access to recycling collection. Green design will be incentivized by charging producers of those products little to no assessments and the SO Plan will develop grants and subsidies to incentivize green purchasing.
2. Inbound transportation from other textile generating locations to the designated collection site at an industrial laundry.
3. Consolidation at designated industrial laundries collecting covered products for recycling/reuse and the costs of microfiber filtration devices. This is the first example of producer responsibility for microfiber prevention in policy, an important precedent to set.
4. Transportation for reusable textiles to the most environmentally preferable processors, such as a repair service that may be further away but should be prioritized over recycling.
5. Support pre-processing and processing costs to repair, repurpose, or recycle covered products.
6. Transportation for recyclable textiles to most environmentally preferable processors.

7. No funds for recycling without technology disclosure. Follows current state recommendations for preferred recycling technologies as prescribed by CalRecycle.

Annual Reporting: SO should report to CalRecycle annually the list of participating producers, eligible recyclers and processors, volume of collected textiles sorted by product type (sheets, towels, uniforms) and fiber content (cotton, polyester, blend), and reasons textiles were recycled. SO will also report volume diverted into reuse or repurposed uses.

This proposal is a first step to carve out the readily recyclable and reusable textiles from less recyclable garments while providing a platform for cross sector collaboration and collective purchasing power. A program providing a large volume of clean homogenous textiles will attract recyclers and other enterprises using these textiles to site in California.

**Related Issues**: There are no related Commission issues at this time.

# Policy 20-12: Food Recovery Policies

**Committee:** Organics

**Adopted:** December 18, 2020

**Purpose:** Provide additional priority and funding to food recovery in California to ensure the highest and best use of edible food, and recognizing that food recovery operates in parallel to traditional waste collection and recycling systems. SB 1383 requires that 20% of edible food be recovered for human consumption, instead of entering the waste stream. In order to achieve this target, additional investment is needed to support and expand the food recovery system. Investments in food recovery are very cost effective when considering life cycle costs for managing this material, including downstream waste management, and the benefits, including meeting human nutritional needs and a healthier environment.

**Background:** This proposal would develop and support the Food Recovery sector as a system along with best practices including infrastructure, technology, and capacity design and development, transportation, staffing, training, programming, operations, logistics, and education and outreach.

## **Proposals:**

1. Food Donation
  1. Prepare and disseminate uniform information and resources regarding California's Good Samaritan Law (AB 1219, Eggman, 2017) which provides liability protection for donors and donated food to increase food donation. The department should enact its authority under Section 114435 in the California Health and Safety Code to mandate local enforcement officers to educate businesses about California's robust donor protection laws during their routine inspections.
  2. The legislature should renew the Farm to Food Bank Tax Credit, which is set to expire at the end of 2021, and expand it to other producers of edible food waste, such as restaurants, retailers, and other foodservice providers. The current tax credit provided to farmers is estimated to generate [10-20 lbs of food donations](#) to food banks and other recovery organizations for every dollar spent. According to [ReFed's "Roadmap to Reduce U.S. Food Waste by 20 Percent"](#), approximately 1 million meals can be donated to hungry people for every \$1 million provided in tax deductions to restaurants and retailers.
2. Food Date Labeling
  3. The legislature should mandate uniform date labeling on food items pursuant to the state policy previously adopted under AB 954 (Chiu, 2017). Current law requires CDFA to promote voluntary standards for food distributors and retailers to adopt the following date labels:



1. “BEST if Used by” or “BEST if Frozen by” to indicate freshness
  2. “USE by” or “USE or Freeze by” to indicate safety
  3. No use of consumer facing “sell-by” dates
  4. If the legislature fails to act, the Department should require this pursuant to SB 1383 authority, since it has been identified as the most cost-effective way to reduce food waste.
4. In conjunction with CDFA, the Department of Public Health and manufacturers, CalRecycle should issue clear guidance on a uniform process for determining “freshness” and “safety” dates for food.
  5. The department should include education about interpreting food date labels in the public outreach campaign pursuant to SB 1383 (Lara, 2016).
3. Invest in food recovery infrastructure
    6. As funding becomes available, either through the Greenhouse Gas Reduction Fund or through the proposed ballot measure, CalRecycle should significantly expand its current Food Waste Rescue and Prevention Grant Program to fund more projects, support staff and overhead, and switch to a model based on multi-year funding..
4. Sustainable funding for food recovery organizations
    8. Expand ycleFoodreventcuranam and incentivize local jurisdictions to include resources for food recovery programs and infrastructure in their contracts in their solid waste franchise. For example, the [City of LA’s recyLA program](#) requires all waste collection contracts to include partnerships and funding of reuse and food recovery from customers.
    9. Incentivize local jurisdictions to include funding for food recovery infrastructure through the solid waste rates, AB 939 fees, franchise fees, or other parts of the jurisdiction’s solid waste rate structure. This model has successfully funded the development of nearly all of California’s existing recycling infrastructure and could be used to ensure that food recovery organizations have consistent, long-term funding instead of a heavy reliance on grants and volunteers.
    10. Provide guidance on direct generator financial support for food recovery organizations. Donations produce tax credits, but only when there is sufficient infrastructure to collect and distribute the food. Food recovery organizations should be able to receive money directly from generators to support that infrastructure and create the tax benefits.
5. Cross-sectoral partnerships
    1. The legislature should incentivize corporations to reach their Corporate Social Responsibility goals through creative partnerships with food recovery organizations.
      1. For example, rideshare companies can receive tax credits for providing real-time transportation for food that needs immediate pick-up and

delivery. Waste Not OC partners with the [Yellow Cab Company of Greater Orange County](#) to pick up and deliver perishable food to local pantries, often in late night hours when nonprofits don't have the capacity to do so, taxis are idle, and restaurants are closing.

#### 6. Education and Outreach

1. In conjunction with the SB 1383 public education campaign, CalRecycle should incorporate food waste education to promote the culture of food waste avoidance, including tips on extending food shelf life, storing perishables properly, and interpreting food date labels. Messaging should appeal to a variety of values, including economic, environmental and societal benefits.
2. Similar to food safety training, food service employees should go through online training videos about "best practices" to best utilize as much food as possible, avoid contamination and sort waste properly. This training should also include information on the liability protections provided by California Good Samaritan Law, along with clear instructions on how to donate leftover food. This can be supplemented/reinforced with printed signage, especially at points of disposal.
3. CalRecycle should establish a methodology for tracking impact metrics of their education campaign. This has been done in the UK through Waste and Resources Action Programme's (WRAP) ["Love Food, Hate Waste" campaign](#), which has reduced consumer food waste by 21% in 5 years.

#### 7. Develop and maintain a database of food recovery entities to facilitate regional collaboration.

1. To encourage regional collaboration, the State should develop and maintain a list of entities involved in food recovery including but not limited to food pantries, non-profits, food distributors, food processors, and others; to include contact information and an overview of each entity.
2. CalRecycle should assess existing and future facilities and infrastructure needed to meet the State's Food Rescue goals every two years, starting in 2021.

## Policy 20-13: Right to Repair

**Authors:** Davis, Ward

Updated: December 1, 2021

**Addresses Which Commission Goals:** Policies that promote repair and parts salvage from existing products are essential aspects to waste prevention, and important strategies to keeping products and materials in circulation to meet the following goals:

1. 75% goal following waste management hierarchy of waste reduction first, then recycling & composting, then disposal environmentally safe transformation and land disposal.
2. Market Development (increase market demand for post-consumer waste materials, increase demand for recycled content products, promote high quality feedstocks, promote competitive collection and use of secondary waste materials),

**Background:** Commission Recommendation 20-13 was that legislation is needed to establish Right to Repair, referencing AB 1163 (Eggman) from 2019/2020. That bill failed to move out of the Assembly Privacy and Consumer Protection Committee and no parallel legislation was introduced in 2021.

However on July 21, 2021 the Federal Trade Commission unanimously [voted to ramp up law enforcement against repair restrictions](#) that prevent small businesses, workers, consumers, and even government entities from fixing their own products. FTC's policy statement is aimed at manufacturers' practices that make it extremely difficult for purchasers to repair their products or shop around for other service providers to do it for them. By enforcing against restrictions that violate antitrust or consumer protection laws, the Commission is taking important steps to restore the right to repair.

In May, the FTC released [a report to Congress](#) that concluded that manufacturers use a variety of methods—such as using adhesives that make parts difficult to replace, limiting the availability of parts and tools, or making diagnostic software unavailable—that have made consumer products harder to fix and maintain. The policy statement notes that such restrictions on repairs of devices, equipment, and other products have increased the burden on consumers and businesses. In addition, manufacturers and sellers may be restricting competition for repairs in a number of ways that might violate the law.

The Report found that “although manufacturers have offered numerous explanations for their repair restrictions, the majority are not supported by the record.”

“These types of restrictions can significantly raise costs for consumers, stifle innovation, close off business opportunity for independent repair shops, create unnecessary electronic waste, delay timely repairs, and undermine resiliency,” FTC Chair Lina M. Khan said during an open FTC meeting. “The FTC has a range of tools it can use to root out unlawful repair restrictions, and today’s policy statement would commit us to move forward on this issue with new vigor.”

In the policy statement, the FTC said it would target repair restrictions that violate antitrust laws enforced by the FTC or the FTC Act’s prohibitions on unfair or deceptive acts or practices. The FTC also urged the public to submit complaints of violations of the Magnuson-

Moss Warranty Act, which prohibits, among other things, tying a consumer's product warranty to the use of a specific service provider or product, unless the FTC has issued a waiver.

The Federal Trade Commission also stands ready to work with legislators, either at the state or federal level, in order to assure that consumers have choices when they need to repair products that they purchase and own.

On November 17, 2021 Apple "announced Self Service Repair, which will allow customers who are comfortable with completing their own repairs access to Apple genuine parts and tools."<sup>40</sup> Kyle Wiens, iFixit's Founder and CEO, responded that "all of the reasons not to pass right to repair have sort of been negated by this announcement. Apple's saying consumers can make repairs safely if they have the right information."

As part of a comprehensive Circular Economy law, France adopted repairability labeling. To fight against the practice of planned obsolescence, certain electric and electronic products must display a "repairability rating" starting in 2021, and a "durability rating" starting in 2024. The new repairability rules require manufacturers to display ratings that are calculated using five measures: ease of repairability, price of spare parts, availability of spare parts, availability of repair documentation and a final measure that varies depending on the type of device.

The California-based organization iFixit rates repairability of smartphones, tablets and laptops. Their engineers disassemble and analyze each device, assigning a repairability score between 0 and 10, with 10 being the easiest to repair. A device with a perfect score will be relatively inexpensive to repair because it is easy to disassemble and has a service manual available. Points are docked based on the difficulty of opening the device, the types of fasteners found inside, and the complexity involved in replacing major components. Points are awarded for upgradability, use of non-proprietary tools for servicing, and component modularity.

**Purpose(s):** This proposal would establish the most basic foundations for asserting that products should be repairable by the owner: to protect and maximize the ability of a purchaser/owner of an item to determine the item's disposition; to repair it at a reasonable cost and be able to have a third party of their choosing repair it at a reasonable cost.

Establishing and defending Right to Repair is a foundational effort to assert that waste prevention activities like repair should take precedence in policy and practice to recycling or disposal. This proposal would require manufacturers to make available sufficient service documentation and functional parts, on fair and reasonable terms, to owners of the equipment or products, independent service and repair facilities, and service dealers. This proposal would establish an "ease of repair" requirement on manufacturers such that

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<sup>40</sup> <https://www.apple.com/newsroom/2021/11/apple-announces-self-service-repair/>

products can be reasonably disassembled and reassembled by the consumer to replace consumable or defective parts.

This proposal would also expand the category of products to which these provisions apply to explicitly include software, digital diagnostic tools, and other (digital) documentation necessary to keep the manufactured product in good working order.

Additionally, if a manufacturer stops selling or supporting an item: all of the documentation necessary to independently maintain that item -- technical diagrams, schematics, bills of material and other documentation necessary to continue to keep the item in service -- should become public domain.

**Proposal(s):** Durable products like electronics and appliances would benefit from information not just on how the end-user should recycle it at the end of life, but also information on how the end-user can keep the item in service for its originally intended use for as long as possible. For example: products might be labelled, maybe with a QR code or some other associated documentation like serial number or model number, which directs users to a web-based repository with information on repair, maintenance, and servicing of that product.

#### Updated Recommendations:

1. The Commission reasserts that California needs to adopt Right to Repair legislation. The Federal Trade Commission considered issues that are similar to those raised in prior California legislative analyses. FTC's input can inform new analyses and assure that Californians can repair products they own more easily and affordably.
2. The Commission urges inclusion of repair consideration in State procurement, specifically:
  1. Establish/work with a company to develop third party verification of recycled content, reuse and repair claims
  2. Incentivize/include durable, reusable, refillable and repairable options when possible
  3. Require repair information for all purchases, including electronics
  4. Preference be given to vendors who provide the state with repair manuals, repair parts and diagnostic tools
2. The Commission recommends product repairability labeling to inform consumer purchasing decisions. If numeric scales are used to reflect repairability, they should be subject to third party verification with verification costs paid by product manufacturers.

**Related Issues:** Aspects of Right to Repair are included in several Commission policy proposals. The Commission's Policy 20-05 on the State Agency Buy-Recycled Campaign also addresses Right to Repair issues. Commission Policy 21-30 Labeling System for Products and Post-Consumer Management includes three repair labeling recommendations.

**Possible 2022 Legislative Priority?** Yes

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Legislation is needed to establish these basic principles of Right to Repair

**Does this proposal require additional funding or changes to resource allocation?** No.

## Policy 21-27: Recovering Resources from Mixed C&D Debris

**Adopted:** June 2, 2021

**Authors:** Heidi Sanborn and Sara Toyoda

### **Background:**

CalGreen requires most locally permitted construction projects to divert 65 percent of non-hazardous construction and demolition (C&D) debris generated from the project (CalGreen 4.408, 5.408, 301.1.1.1 and 301.3). Common C&D materials include lumber, drywall, metals, masonry (brick, concrete, etc.), carpet, plastic, pipe, rocks, dirt, paper, cardboard, or green waste related to land development. Many of these materials can be reused or recycled.

Some materials such as Carpet, Wood, Aggregate, Paint, Shingles, Wallboard are generally unique to the C&D waste stream and when commingled or mixed with other materials, significantly hinders the ability to recover these resources unless they processed by a Construction Demolition and Inert Debris (CDI) facility. CDI facilities process/sort comingled C&D waste to extract reusable or recyclable material before the load is sent to a landfill.

No two CDI facilities perform equally when it comes to recovering, and diverting, the constituent materials that comprise the mixed/commingled loads of C&D debris that arrive at their gate. The diversity in facility performance is necessary to serve the needs of a variety of building activities, including full structural demolitions and new commercial and residential construction (single family and mixed-use), which are attempting to adhere to minimum diversion requirements set by CalGreen, and a plethora of commercial and residential alterations.

For C&D project owners & representatives, general contractors, and members of the public trying to adhere with minimum 65 percent diversion requirements set by the State (CalGreen), local jurisdictions, and/or LEED, they must be able to rely upon timely and accurate reporting of facility recovery rates so they may choose the best facility for their project material to be separated. However, **if the project owner, contractor, or manager is to trust a CDI facility's self-reported recovery rates, then it must be verified by the local jurisdiction.** Most local jurisdictions lack the staff and expertise to facilitate a proper verification of recovery rates.

Without proper oversight, regulations create an unlevel playing field, in which CDI operators investing in the mission of resource recovery, are left competing against operators who only promote artificially inflated diversion results, while operating as a transfer station with little intent to sort, process, and recover the material that enters their gate. The situation is one that ultimately rewards CDI facilities that artificially inflate their recovery rates, while punishing operations who may be exceeding the arbitrary 65% benchmark of success.

It also creates an unrealistic baseline that 65 percent of C&D materials are currently diverted and sets up expectations that in order to increase C&D material diversion, CalGreen need

only increase the diversion percentage. The reality is that without 3<sup>rd</sup> party verified diversion rates, the actual baseline for currently diverted C&D material is unknown. It is critical to have accurate and transparent reporting of the current standard for measuring the efficacy of material recovery efforts, and the only way this is achieved is with a thorough evaluation of the facility's recovery rate conducted by a qualified third-party.

If facility recovery rates are certified by 3<sup>rd</sup> party verifiers, an actual baseline for C&D waste diverted can be established and CalRecycle can make informed decisions about the recoverable material in residual output from facilities that goes to disposal. To facilitate this, CDI facilities should not be penalized for diversion rates below 65 percent if the rate is certified by a state approved 3<sup>rd</sup> party verifier. The authors recognize that the current practice of imposing a minimum recovery rate of 65% at the CDI facility still has a place in the process because it is politically and programmatically symbolic, and everybody knows where the bar is set. However, implementing 3<sup>rd</sup> party verification removes the incentives to cheat, and promotes compliance with this proposal if facilities are not afraid to certify at 30% for example.

Once CDI facilities in all impacted counties are third-party verified, (Calgreen or CalRecycle) can reassess whether the recovery rate is the optimal metric of success or if we should consider applying another lens such as whether the landfill residual pile has less than X% recoverable material (placeholder threshold). Diversion objectives can turn toward recoverable material in residual output of facilities, or additional diversion mandates. We cannot do this without knowing where the actual state baseline is.

In 2018, San Francisco amended the regulations for implementing its 12-year-old C&D Debris Recovery Ordinance to require 3<sup>rd</sup>-party verified material recovery rates from CDI facilities that were processing mixed C&D debris originating in San Francisco. The verified rates from the 12 facilities in San Francisco's (S.F) authorized network ranged from 50% to 80% when qualifying Alternative Daily Cover (ADC) as diversion, and 15% to 66% when ADC is disqualified, as is mandated by projects certifying under LEED requirements. [See the Related Issues section for more concerns related to qualifying ADC as diversion. Prior to implementing its requirement for 3<sup>rd</sup>-party verification S.F. was compelled to honor a 65% recovery rate at all the CDI Facilities in its authorized network due to limited staffing and expertise. Once the material was 3<sup>rd</sup> party verified, the City could evaluate facilities that had recovery rates lower than 65 percent. The City worked to address the material that was being disposed of through conversations about facility processes or markets or both.

**Purpose(s):**

Remove incentives that encourage inaccurate reporting by CDI facilities by requiring and enforcing 3<sup>rd</sup> party verification. By requiring all CDI facilities to have their performance outcomes (i.e., material recovery rates) certified by a State-qualified third-party verifier, the field of play is leveled, allowing for project managers to direct materials to the facility that will



best aid the project in fulfilling its own minimum recovery rate (often mandated by CalGreen and/or LEED).

Establish an actual statewide baseline of C&D diversion through 3<sup>rd</sup> party certification and allow future diversion efforts to be more educated and effective. The baseline is necessary to understand materials that need further processing infrastructure or market development to increase diversion rates. This policy is meant to drive the diversion of one hundred percent (100%) of the metals, asphalt, concrete, gypsum, and similar material, and at least sixty-five percent (65% or the minimum recycling rate required by CALGreen) of the total of all other C&D Debris generated by the Covered Project.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?**

Yes. This proposal would require interaction between CalRecycle and CalGreen because the 65 percent diversion rate is under CalGreen authority. In addition, legislation would be necessary to require the 3<sup>rd</sup> party verification and ensure its enforcement.

**Possible 2021 Legislative Priority?**

Yes. Globally, construction is one of the largest sectors of today's economy, representing about 13% of GDP. Additionally, the built environment uses almost half of the world's extracted materials annually, and the rate of building is only increasing with the industry projected to construct the equivalent of an entire New York City every month for the next 40 years. That is about 230 billion square meters of new construction by 2060 (Ellen MacArthur Foundation).

In the U.S. alone, it is estimated that construction and demolition (C&D) generated about 600 million tons of debris in 2018 (US EPA). As the rate of building continues to increase, business as usual in the construction sector will result in further material extraction and waste generation, overall increasing greenhouse gas (GHG) emissions. This is a particularly pressing concern for California as all its most populous counties experienced positive growth rates from 2010 to 2021 ([World Population Review](#)).

Without aggressive action to ensure material recovery from C&D debris is prioritized, the State will be challenged to meet both its zero waste and climate action objectives, and will remain complicit in the creation of an unlevel field of competition.

**Does this proposal require additional funding or changes to resource allocation? (No or Yes with explanation)**

The cost to have a CDI facility's recovery rate verified should be incurred by the facility operator, who will pass it through to all its customers as part of their tipping fees. The cost to oversee the program by the state should be minimal.

This implementation measure ensures fairness and equity in the way in which CDI operators absorb the new cost. Larger facilities with more sophisticated recovery lines and higher daily throughput levels will ultimately incur a higher cost to verify than a smaller operation. Both operators will absorb the cost and pass it on to their clientele, of which the larger operator has several magnitudes more than the smaller outfit.

### **Proposal(s):**

California Secretary for Environmental Protection Jared Blumenfeld challenged members of this Statewide Commission with the following call to action, "As the fifth largest economy in the world, we not only have a responsibility to be an environmental leader, but we also have an opportunity to change the national and global agenda when it comes to managing materials and resources."

To achieve this ambition, noble, and just vision, the author(s) propose immediate adoption of the following policy framework:

1. Prohibit direct haul to disposal or incineration of any commingled/mixed loads of C&D debris.
2. Mandate 3<sup>rd</sup>-party verification of all mixed debris processing facilities; verification methodology should adhere to certification standards recognized by the organizations like the U.S. Green Building Council, and San Francisco's Department of the Environment (e.g., [Recycling Certification Institute's CORR Protocol](#)).
  - Give 1 year to register and start self-reporting to the State recognized qualified third-party verifier.
  - Give 5 years to get the whole state certified.
  - Certification order is based on a first-come, first-served basis.
  - Possible additional language on RCI website to denote what type of line it is. Example: Mixed, Demo, Construction, Tenant Improvement, Shingles. Not all lines are equal.
  - Permitted CDI Facilities on or at a landfill should not be excluded; they should be held to the same standards - the goal is not to put anyone out of business, but to level the field.
3. Establish and enforce minimum diversion/recovery requirements through CalGreen, with requirements being enforced at the point of debris generation (i.e., the construction or demolition activity/project). CalRecycle should not enforce minimum diversion rate requirements at CDI facilities. CalRecycle should issue CDI facility permits and monitor compliance with permit requirements.

4. Allow for 3<sup>rd</sup>-party verified recovery rates to be certified below 65%, so long as the rate has been verified (with and without ADC as diversion) by a state-qualified third-party verifier.
5. Mandate and incentivize training for contractors who self-haul on C&D requirements and best practices.

### **Low Population Waivers and Exemptions to C&D requirements**

SB 1383 allows counties and cities with low-population areas to apply for one of three types of waivers/exemptions. CalRecycle has included these waivers/exemptions recognizing the unusually high cost of providing organics recovery programs to residents and businesses in rural or remote areas. C&D processors have similar limitations on the volume of feed stocks and the inherent expenses of C&D processing. Each low-population exemption and waiver is described below.

**Census Tract Waivers** - Counties can apply for low-population waivers for census tracts in unincorporated portions of the county area. Qualifying census tracts must have a population density of less than 75 people per square mile. Census tract waivers are valid for up to five years, at which point a county can reapply for another waiver if the population densities still meet the mandatory threshold.

**Rural County Exemptions** - Counties that qualify as a rural county may apply for an exemption. This type of exemption is common in California solid waste regulations due to the unusually high cost of providing service to generators in these areas. For a county to be considered a rural jurisdiction, it must have a population of less than 70,000 people. Cities located in rural counties are also covered under the rural exemption if their population is below 7,500. Rural exemptions should be valid for five years before at which point a County must reapply for another waiver. It will be approved only if the population thresholds are met.

**City Waivers** - 1) they must be located over 30 miles away from the nearest permitted and operational C&D facility; or, 2) they must have had a population of less than 7,500 people (based on U.S. Census data). Waivers issued to cities are valid for up to five years at which point a city must reapply for another waiver. It will be approved only if disposal, lack of appropriate facility and population thresholds are met.

### **Related Issues:**

#### **QUALIFYING THIRD-PARTY VERIFIERS**

Qualified Third-Party Organizations that verify Facility-Average Diversion Rates shall adhere to the following protocol:

1. The certification organization follows guidelines for environmental claims and third-party oversight, including ISO/IEC Guide 65 or ISO 17065 and relevant portions of the ISO 14000 family of standards.
2. The certification organization continuously monitors verified facilities to ensure that the facilities are operating legally and meeting the minimum program requirements for facility certification and recycling rates.
3. Data submitted by the facilities to the certification organization in support of the recycling rate is audited. The audit includes, at a minimum: the evaluation of recyclables sales records, verification of facility sales into commodity markets, monitoring off-site movement of materials, and a review of the facilities' customers weight tags information.
4. Facilities submit data to the certification organization that supports the recycling rate, such as a mass balance recycling rate (tons in/tons out) for a twelve-month period, or if not possible, quarterly (or a frequency approved by the Compliance Officer) sorts completed and verified by an independent third party entity.
5. Breakdown of materials (by type and by weight), including analysis of supporting data relating to amounts (in tons) and types of materials received and processed at the facility.
6. At a minimum, the third-party certifying organization conducts an on-site visit of the facility for the first year certification, with subsequent site visits occurring at least once every two (2) years, unless additional visits are deemed necessary by the certification organization. The site visit will include:
  1. Examination of how materials enter, are measured, deposited, processed/sorted and exit facility,
  2. Interviews with key personnel,
  3. Confirmation of equipment types and capacity,
  4. Observation and verification of load/materials sorting and accuracy,
  5. Verification of the use and accuracy of scales including calibration frequency.
7. Recycling rates shall adhere to these requirements:
  1. Measurements must be based on weight (not volume), using scales.
  2. Recycling rates must be available on a website and viewable by the general public.
8. Facility recycling data submitted to certification program will be analyzed for recycling rates using a mass balance formula or if not possible, quarterly (or a frequency approved by the Compliance Officer) sorts completed and verified by an independent third party entity.
9. Recycling rates shall be provided for the overall facility with and without ADC/Beneficial Reuse, and will include separate recycling rates by material type as well as combined average including wood derived fuel/bio-fuel separate from other waste to energy or incineration end-markets.

## **REQUIRE CERTIFIED SCALES AND INTEGRATED SOFTWARE**

Require California certified scales and scale software on all Medium Volume CPI Processing Operations permits. 25 to 175 TPD, Inert (Type A) Debris Recycling Centers, Large Volume CFDI Operation, Inert Processing Operation (Type A) and Inert Processing Facility (Types A&B)

- In order for recovery rates to be verified a records audit is conducted; certified scales and integrated software minimize record keeping errors and restrict opportunities to falsify documents that will be audited by verifiers to certify completeness and accuracy of facility records.

## **POLICY CONSIDERATIONS FOR CALGREEN**

- Consider applying different minimum diversion/recovery requirements based upon the type of building activity (e.g., structural demolition -vs- tenant improvement), including a requirement for generation reduction (i.e., waste prevention). This creates an incentive for the CDI facilities to improve material recovery outcomes based on their customer demand.

## **ISSUES WITH QUALIFYING ADC AS DIVERSION**

Qualifying Alternative Daily Cover (ADC) as diversion has helped displace the practice of using virgin soil to cover landfills, and instead utilize the post-processed screen fines from CDI facilities (an often-unavoidable output to mixed debris processing that has no end market).

An unintended consequence of this qualification is that CDI facility operators are incentivized to generate ADC with intentional grinding and crushing to satisfy the misapplied arbitrary requirement to recover 65% of materials comprising the mixed debris stream.

The best way to course-correct for this unintended outcome is to ensure CDI facilities have two recovery rates third-party verified – one that qualifies ADC as diversion, and the other that disqualifies it as is required by LEED. See [San Francisco's list of Registered Facilities](#) (each with two 3<sup>rd</sup>-party verified rates) as an example.

## **REDUCING PERMITTED THOROUGHPUT VIOLATIONS AT CDI FACILITIES**

Restrict future Small Volume CDI facilities (i.e., Notification Tier) to only permitting the processing material they generate. No outside materials delivered by the public allowed as this often results in violations of the allowed throughput level of 24.99 tons/day.

# Policy 20-11: Carpet Stewardship and Flooring

**Authors:** John Davis, Heidi Sanborn

**Adopted:** December 18, 2020

**Background:** California is the first state to require a statewide carpet recycling program designed and implemented by carpet manufacturers with CalRecycle oversight. Carpet America Recovery Effort (CARE) is the manufacturers' stewardship organization that implements the program.

As an extended producer responsibility recycling program, carpet manufacturers (either individually or through their stewardship organization) design and implement their own stewardship program but it is funded by a visible fee assessed at point of sale paid for by consumers. The stewardship organization prepares and implements a plan to reach program goals, finances and distributes funds to support the stewardship program, and reports to CalRecycle on their progress. CalRecycle's role in the carpet stewardship program is to review and approve plans, check progress, and support industry by providing oversight and enforcement to ensure a level playing field among carpet manufacturers.

California's [Carpet Stewardship Law](#) states that the amount of the assessment shall be sufficient to meet, but not exceed, the anticipated cost carrying out the plan. The current assessment is \$0.35 per square yard of carpet sold in California, amounting to \$28.2 million in 2019. Subsidies are paid to Collectors/Sorters, Processors and Manufacturers totaling \$14.56 million in 2019. Direct program costs (\$7.24 million) and CARE administration (\$2.16 million) comprise the remaining 2019 expenses for a grand total of \$23.96 million.

AB 1158 statute set a recycling rate of 24% by January 1, 2020. The program achieved an overall 19.1% rate for 2019, reaching 22.5% in the 4<sup>th</sup> Quarter. CARE's 2019 California Annual Report indicates that 73.6 million pounds were collected by the program, yielding 58 million pounds of output primarily PET (24.5 million) and Nylon 6 (10.5 million) fibers, and calcium carbonate (14.1 million).

The California Department of Toxic Substances Control issued a "Product – Chemical Profile for Carpets and Rugs Containing Perfluoroalkyl or Polyfluoroalkyl Substances" in October 2019. The Profile is a report generated by DTSC to explain its determination that a proposed Priority Product meets the Safer Consumer Products regulatory criteria for potential significant or widespread adverse impacts to humans or the environment. The Profile is not a regulatory document and does not impose any regulatory requirements.

The Profile addresses carpet recycling:

"Given the relatively long useful life span of carpets, on the order of one to two decades (Arcuri 2015), the carpets and rugs entering the waste stream now may contain side-chain fluorinated polymers that degrade into longer-chain PFAAs. Because PFASs are not removed during recycling, new carpets containing recycled carpet content will inadvertently perpetuate the presence of longer-chain PFASs in California homes. Recycled carpet content may lead to the presence of PFASs even

in carpets without intentionally added PFAS-based treatments (Changing Markets Foundation 2018).”

The Profile notes that impacts occur from other end-of-life carpet options, including combustion (PFCAs and CFCs as well as fluorocarbons) and landfill leachate and treated leachate from Waste Water Treatment Plants.

This proposal addresses the goal of PRC 42005(b)(2) Increasing demand for recycled content products, especially high quality, value-added products.

**Purpose(s):** The Commission and Market Development Committee received public comments and proposals focused on collection and product toxicity. This proposal addresses those concerns and other issues identified by the Committee.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle? Yes.** CARE is the product stewardship organization for carpet and is responsible for the program. Legislation is needed.

**Possible 2021 Legislative Priority? Yes.** Ban sale of any flooring product, carpet/pad etc. containing PFAs. Require all non-natural flooring and padding to be tested for safety by Dept. of Consumer Affairs. Ban the disposal of carpet in California without first being sent through qualified sorters.

**Does this proposal require additional funding or changes to resource allocation? It would increase the costs to manage the CARE program to increase carpet collection and safety.** Collection costs would increase to provide hard to handle reimbursement and may increase for installers network expansion to significantly increase collection.

**Proposal(s):**

CARE is preparing recommendations around highest recyclability and differential assessments that were originally expected in October 2020 but are now due to CalRecycle by June 2021 due to an extension to the deadline approved by CalRecycle. The following proposals involve more reporting and planning detail around resin types.

1. CalRecycle should require that CARE submit a clearly stated annual implementation plan showing anticipated generation and yield, needed collection and processing, and end use destinations for sufficient carpet and resulting by-products (by resin type) to meet or exceed annual goals.
2. CalRecycle should require a clearly stated annual financial plan showing anticipated revenue and its use to support the implementation plan elements, with expenditures linked to subsidized activity and cumulative expenditures by resin type.

Carpet toxicity concerns are amplified by DTSC’s Profile:

[https://dtsc.ca.gov/wp-content/uploads/sites/31/2020/02/Final\\_Product-Chemical\\_Profile\\_Carpets\\_Rugs\\_PFASs\\_a.pdf](https://dtsc.ca.gov/wp-content/uploads/sites/31/2020/02/Final_Product-Chemical_Profile_Carpets_Rugs_PFASs_a.pdf). These recommendations focus on issues raised in the Profile they may impact CARE’s program and reflect Precautionary Principle approaches endorsed by the Commission.

3. CalRecycle should provide public written preapproval for any studies to be conducted with public fee money, and ensure that those studies remain public and transparent to CalRecycle and the public, and results provided in a timely fashion.
4. CARE needs to address concerns raised by DTSC's Profile, identifying protocols to reduce worker and continued public exposure impacts from carpet recycling. Exposures include continued circulation of PFAs through fiber and calcium carbonate recycling.
5. Ban sale of any flooring product, carpet/pad etc. containing PFAS.
6. Require all non-natural flooring and padding to be tested for safety by Dept. of Consumer Affairs.

CARE needs to assure that carpet collection keeps up with demand for California recycled materials as recycled carpet manufacturing operations open and expand. There are existing recycled carpet markets, infrastructure is more developed. After ten years the carpet stewardship program has a greater market in California that needs to receive the material. The continued expansion of recycled carpet markets depends on expanded effective collections, currently estimated at 27%.

7. CARE needs to set and meet resin-specific collection goals for materials and volume to serve in-state recycling manufacturers.
8. Professional carpet installers, and installers replacing carpet with other flooring, handle up to 90% of carpet discards. CARE needs to increase its efforts to secure carpet from installers, working with retailers, wholesalers and distribution facilities to provide efficient collection options. If CARE does not offer to incentivize collection of carpet and pay the people that must keep it clean, dry, rolled up fiber in, and delivered to a facility for their labor, they cannot claim they cannot meet the goals due to lack of collection.
9. CARE should collect carpet at no cost from the installers' network in order to avoid conflicts with local hauling arrangements or make arrangements with local haulers under existing arrangements to deliver installers' loads to a CSE or processor. Carpet recycling processing residuals must be managed in accordance with local rules, laws and applicable franchise language.
10. CARE should collect carpet at no cost from MRFs, landfills, and transfer stations, including hard-to-handle reimbursements as is done in the very similar mattress stewardship program.
11. Ban the disposal of separated, unsoiled carpet in California without first being sent through qualified sorters for inclusion in CARE's program.

**Related Issues:** Precautionary Principle



# Policy 21-20 Letter to the Legislature on Urgency Changes to Bottle Bill

February 3, 2021

Governor Newsom  
California State Capitol, Suite 1173  
Sacramento, CA 95814

Governor Newsom and Members of the California Assembly and Senate:

## **SUBJECT: URGENT REQUEST TO INCREASE CONVENIENCE TO REDEEM BOTTLE DEPOSITS**

Dear Governor Newsom, Senators, Assembly Members, and staff:

The recycling crisis, recycling centers closing, and lack of convenient California Redemption Value (CRV) redemption centers in California is well documented. With major unserved areas within California where consumers are unable to redeem their CRV deposits without driving over 10, 20, or more miles or stand in long lines, increasingly Californians view the State's CRV program as a TAX, rather than a program designed to reduce littering, provide convenient recycling opportunities and to help the environment.

Due to the combined closure of over 1,000 CRV redemption locations due to poor market conditions and the impact of State's COVID-19 stay-at-home orders, the Beverage Container Recycling Fund (BCRF) has increased by over [\\$120 million in unredeemed CRV deposits in the past 14 months](#) (calculation was based on the CalRecycle raw data by Jeff Donlevy).

The Statewide Commission on Recycling Markets recognizes that the Bottle Bill must be fixed, however, the legislative and regulatory process will take 2-3 years for reform to stimulate change and increase convenience. **The people of California deserve a more urgent fix as they struggle to put food on the table during the time of both a health and economic crisis.**

The Commission respectfully requests that emergency action by the Governor and Legislature to implement an urgency measure to authorize the new Director of CalRecycle, Rachel Machi Wagoner, the authority to use bottle bill funds to open recycling centers and other redemption methods such as reverse vending machines and bag drops in underserved areas.

The recommended emergency actions include:

1. Provide \$10 million per fiscal year in the Budget, for three years, to allow the Director of CalRecycle to assist the opening or reopening of other redemption opportunities

and provide funding of up to \$10,000 per month, per newly certified location, for two years, in underserved and rural areas.

2. Allow the Director to use Penalty Account funds and Option B payments, paid by dealers, to assist recycling centers and dealers in underserved and rural areas to purchase equipment used for redemption by consumers.
3. Allow the Director to authorize Handling Fee payments to new and existing recycling centers not on dealers' sites in underserved and rural areas. Recycling Centers paying scrap value for CRV material would be ineligible to receive Handling fee payments.
4. Allow Grocers and dealers redeeming beverage containers in store to be made whole for CRV payments made to consumers and receive Handling fees for material delivered to approved processors or recycling centers.
5. Allow the Director to authorize certified recycling centers to temporarily operate by appointment to manage inbound customer and material volume for example when there is incremental weather or to accommodate health concerns. The Director should explore potential for approving modified operating hours if that will increase availability of redemption opportunities.
6. Allow the Director of CalRecycle to authorize flexibility in service hours and/or increases to Processing and Handling payments - possibly under a tiered structure - to recycling centers in specific rural and underserved regions by up to 35 percent higher than statewide rates.
7. Allow the Director to redirect AB 54 Pilot Project funds for any program unfunded by May 1st, 2021 and quickly move the funds to expedite creation of new redemption opportunities in underserved areas.
8. Allocation of requested funds should not negatively impact existing programs.

For questions, please contact:

Chair, Heidi Sanborn at [heidi@nsaction.us](mailto:heidi@nsaction.us)

Vice-Chair Richard Valle at [rvalle@tri-ced.com](mailto:rvalle@tri-ced.com)

Co-Author/Commissioner Jeff Donlevy at [jeff@mingsrecycling.com](mailto:jeff@mingsrecycling.com)

Thank you in advance for your timely consideration, which acknowledges the urgency of the situation, and for your leadership.

Kindest Regards,

The Commission on Recycling Markets and Curbside Recycling

John Bouchard	Teamsters 350, Principal Officer
Deborah Cadena	Kern County Recycling
John Davis	Mojave Desert and Mountain Recycling Authority
Jan Dell	The Last Beach Cleanup, Founder
Jeff Donlevy	Ming's Recycling, General Manager
Laura Ferrante	Waste Alternatives, Owner
Joseph Kalpakoff	Mid Valley Disposal, CEO
Nick Lapis	Californians Against Waste, Director of Advocacy

Manuel Medrano City of Chula Vista, Environmental Services Manager  
Alex Oseguera Waste Management, Director of Government Affairs  
Eric Potashner Recology, Senior Director of Strategic Affairs  
Heidi Sanborn National Stewardship Action Council  
Ann Schneider Mayor - City of Millbrae  
Coby Skye LA County Public Works, Assistant Deputy Director  
Sara Toyoda City of Indio, Environmental Programs Coordinator  
Richard Valle Tri-CED Community Recycling, CEO  
Tedd Ward Del Norte Solid Waste Management Director

cc: League of California Cities  
California State Association of Counties  
Rural County's Environmental Services Joint Powers Authority (ESJPA)

# **Policy 20-14: Beverage Container Recycling, Changes to the Bottle Bill and Support CalRecycle AB 54 Report**

**Committee:** Recycling

**Date Adopted:** 18 December 2020

Beverage Container Recycling, Changes to the Bottle Bill and Support CalRecycle AB 54 Report, including:

1. Expanding Convenience Zones to 1 mile in urban areas and 5 miles in rural areas, and allowing CalRecycle Director to adjust zones in jurisdictions with unique zoning or siting issues;
2. Limiting Store Exemptions to 35% by jurisdiction or county
3. Allowing Handling Fee payments to recycling centers not on dealers sites, but within the zones;
4. Placing a Cap on Handling fees received by site, zone, and jurisdiction;
5. Allowing Grocers and dealers to receive payment from a recycling center or processor the deposits paid out to a consumer and also receive Handling Fee payments.

These are the initial policy recommendations to help with the overall major reform of the bottle bill. The overall reform and recommendations are too many for the commission to address in the timeframe allowed.

The Commission recommends that the Legislature should not wait for the Commission to review, vet, or make additional recommendations. This commission encourages the Legislature to make substantial changes to the Bottle bill to help Californians redeem their deposits and to promote better recycling practices in the State of California.

## **Date(s) before full Commission:**

The policy topics have been discussed at the following full commission meetings:

- October 2<sup>nd</sup>, 2002
- November 4<sup>th</sup>, 2020

The written policy recommendations are being presented to the entire commission for review and approval on December 2<sup>nd</sup>, 2020.

**Primary Author(s):** Jeff Donlevy

**Adopted:** 18 December 2020

## **Background:**

*Executive Summary from the AB 54 Report to the Legislature - The California Beverage Container Recycling and Litter Reduction Act (Act), signed into law in 1986, established the Beverage Container Recycling Program (BCRP) to reduce litter and increase recycling. The Act established a consumer deposit on beverage containers, known as the California Redemption Value (CRV), and set a goal to achieve an 80*

*percent recycling rate. Since its enactment, the BCRP has recycled over 400 billion beverage containers through an extensive collection infrastructure and achieved a 76 percent recycling rate in 2018.*

*There are several statutory provisions that dictate convenience and payments to recyclers. As consumers must be able to redeem their beverage containers in order to receive their CRV, the Act requires that consumers have a convenient means to do so. The current convenience standard of at least one recycling center within one half mile of a supermarket (i.e. convenience zone) has not been updated for more than 30 years and does not consider geographic and population differences across California. The Act also prescribes specific operating requirements for recycling centers that do not allow for flexibility nor consideration of alternative consumer redemption opportunities. At the same time, changes in the global marketplace have caused recycling to be less profitable. As a result of the inability to innovate new recycling opportunities to consumers and respond to market forces, approximately 800 recycling centers have closed since 2016.*

In 2013, there were a high of 2,573 recycling centers and convenience zone recycling centers available to California Consumers. The largest provider of convenience zones recycling centers, RePlanet, closed 150 locations in 2017 and filed for bankruptcy in August of 2019, closing the remaining 284 locations and laying off over 750 employees. As of November 2020, there are less than 1,219 recycling centers available to California consumers.

As an example of the dire need for reform, In Humboldt County, as of November 20th, 2020, there is only one certified recycling center for the entire 1,200 square mile county as four other recycling centers have closed in the past six months. In the county, all the grocery stores that would be required to take containers back in store in the absence of having a recycling center in the area, all filed and received exemptions. Based on those exemptions, there is only one dealer in Humboldt County required to redeem deposits “in store.”

Currently, grocers and dealers that redeem consumer deposits in store are not eligible to receive the CRV deposits paid back to consumers, nor are the stores eligible for any additional payments from the funds, as they are not “certified” programs eligible to receive those funds.

In September of 2020, Governor Newsom signed into Law, AB 793. This requires a higher use of post-consumer plastic in the production of new plastic containers. In order to achieve the levels required under AB 793, California will need to significantly increase the recovery of plastic bottles from recycling centers.

**Purpose(s):** The purpose of these policy recommendation are to:

1. Allow Grocers to get paid from the Beverage Container Recycling Fund for their participation in redeeming consumer deposits;
2. Changing the store exemption from 35% statewide to a maximum of 35% of the stores in a jurisdiction or county;
3. Allow CalRecycle to expand or adjust the half (.5) mile standard in urban areas and three (3) mile standard in rural areas for establishing a convenience zone;
4. Change existing requirement for paying Handling fees from being on a deal site to a recycling center anywhere within the convenience zone;
5. Establish a Cap/Maximum payment of Handling Fee payments to a recycling center not to exceed \$10,000 per zone, allow the Handling fees to be split between up to three different recycling centers in the zone if the recycling centers are in different areas of the zone.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Legislation is required

**Possible 2021 Legislative Priority?** Yes. Legislation and major overhaul of Bottle Bill is needed to help consumers redeem their deposits.

**Does this proposal require additional funding or changes to resource allocation?**

No, these changes would be funded through the existing Beverage Container Recycling Fund.

**Proposal(s):**

It is proposed that the following sections of the Bottle Bill be changed:

**§14539. (a)(4)** A processor shall not pay any refund values, processing payments, or administrative fees to a non certified recycler. A processor may pay refund values, processing payments, or administrative fees to any entity that is identified by the department on its list of certified recycling centers or grocery store with prior written agreement.

**§14509.4.** "Convenience zone" means either of the following:

(a) The area within a one-~~half~~ mile radius of a supermarket or different parameters as designated by the Department Director based on the unique needs of challenges of the jurisdiction and agreed upon by the area stores and dealers.

(b) The area designated by the department pursuant to Section 14571.5.

**§14571.5.** The department may, in a rural region, as identified pursuant to subparagraph (A) of paragraph (2) of subdivision (b) of Section 14571, upon petition by an interested person, do either of the following:

(a)(1) Increase a convenience zone to include the area within a ~~three~~ five-mile radius of a supermarket, if the expanded convenience zone would then be served by a single existing certified recycling center or location.

**§14526.6.** “Supermarket site” means any certified recycling center which redeems all types of empty beverage containers in accordance with Section 14572, ~~and which is located within, or outside and immediately adjacent to the entrance of, or at, or within a parking lot or loading area surrounding, a supermarket which is the focal point of a convenience zone, or a dealer~~ that is located within that zone, and which is accessible to motor traffic.

**§14571.6.** In any convenience zone where no recycling location has been established which satisfies the requirements of Section 14571, and in any convenience zone which has exceeded the 60-day period for the establishment of a recycling center pursuant to Section 14571.7, all dealers within that zone shall, until a recycling location has been established in that zone, do one of the following:

(a) Submit to the department an affidavit form provided by the department stating that all of the following standards are being met by the dealer:

(1) The dealer redeems all empty beverage container types at ~~all open~~ a designated cash register or one designated location on the dealer’s premises, during all hours that the dealer is open for business.

(2) The dealer has posted signs which meet the size and location requirements specified in subdivision

(b) of Section 14570, and which conform to paragraph (2) of that subdivision.

(3) The dealer is delivering, or having delivered, all empty beverage containers received from the public to a certified recycling center or processor for recycling.

Dealer will be paid applicable CRV payments by certified recycling center or Processor and applicable Handling fee payments by the Department.

**§14571.8.(5)(d)** The total number of exemptions granted by the director under this section shall not exceed 35 percent of the total number of convenience zones in a jurisdiction or county identified pursuant to this section.

**§14585. (a)** The department shall adopt guidelines and methods for paying handling fees to ~~supermarket sites~~ recycling centers, nonprofit convenience zone recyclers, or rural region recyclers to provide an incentive for the redemption of empty beverage containers in convenience zones.

The guidelines shall include, but not be limited to, all of the following:

(1) Handling fees shall be paid on a monthly basis, in the form and manner adopted by the department. The department shall require that claims for the handling fee be filed with the department not later than the first day of the second month following the month for which the handling fee is claimed as a condition of receiving any handling fee A maximum of \$10,000 per month in Handling fee payments will be made per zone. A maximum of \$50,000 per month per jurisdiction up to 200,000 residents, \$200,000 per month per jurisdiction up to 1,000,000 residents.

(c)(1) The department shall make handling fee payments to more than one certified recycling center in a convenience zone. Handling fee payments may be

split between up to three (3) recycling centers in a convenience zone or jurisdiction If a dealer is located in more than one convenience zone, the department shall offer a single handling fee payment to a **supermarket site recycling center**.

**§14588.1. (a)** As used in this chapter, "unfair and predatory pricing" means the payment to consumers by a **supermarket site** recycling center, that receives handling fees for the redemption of beverage containers, in an amount that exceeds the following:

**(1)** The California refund value for that container. Sites paying more than California refund value cannot receive Handling fees.

**Schedule for Implementation:** The time required for implementation is one year for legislation and up to 24 additional months for CalRecycle to re-write regulations and procedures to implement.

It will take until January 2024 for these changes to help more consumers redeem their deposits.

**Related Issues:**

None



# Policy 21-32: Glass Containers – Wine & Spirits Collection System

**Authors:** John Davis, Jeff Donlevy

## **Addresses Which Commission Goals (select one or more):**

1. 75% goal following waste management hierarchy of waste reduction first, then recycling & composting, then disposal environmentally safe transformation and land disposal.
2. Market Development (increase market demand for post-consumer waste materials, increase demand for recycled content products, promote high quality feedstocks, promote competitive collection and use of secondary waste materials)
4. Clarify products that are recyclable and compostable

**Adopted: December 15, 2021**

**Background:** California manufacturers of new glass containers must use at least 35 percent postconsumer recycled glass or 25 percent if the cullet is mixed-color. There is little use of mixed recycled glass because of inconsistent color. Likewise, fiberglass insulation manufacturers must use at least 30 percent postconsumer glass (Public Resources Code Section 14549). In recent years, the two industries in California have used more than 700,000 tons of cullet annually. California bottles were 47.9% recycled content in 2019, exceeding the statutory standards. California glass bottle manufacturers can use more source separated recycled glass to exceed mandates and meet demand. According to the Glass Packaging Institute, glass returned via California's container deposit system is 98% usable in furnaces, though contamination in curbside glass is significantly higher.<sup>41</sup>

Imported glass bottles are not required to comply with California's recycled content standards. Unfilled imports of glass bottles in 2020 represented nearly 30% of all glass container domestic shipments, (roughly 7 billion empty glass containers from 70-80 countries)<sup>42</sup> most with no accessible data on recycled content levels. Since they are not manufactured in California, these imports do not fall under the state's minimum content requirement and place California bottle manufacturers at a competitive disadvantage.

Wine and spirits have never been included in the California bottle bill redemption program, however they are included in other state's recycling deposit programs (curbside and commercial collection). Wine and spirits have received the benefits of curbside collection programs, able to claim high recyclability, without helping with program costs that are passed on to the consumers. The scrap value for curbside recycled glass does not cover collection

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<sup>41</sup> Recycled Glass Content Requirements, Market Development Committee of the Statewide Commission, April 12, 2021, [https://drive.google.com/drive/folders/1TCijQfNkTNf7PbTiF8ZJ\\_ydQMq-dbn6U](https://drive.google.com/drive/folders/1TCijQfNkTNf7PbTiF8ZJ_ydQMq-dbn6U)

<sup>42</sup> Ibid.

and processing costs. Approximately 60% of curbside glass containers are non-CRV<sup>43</sup>. These costs have been passed on to the consumers and rate payers.

The financial burden to materials recovery facilities is very high due to breakage, process loss, equipment wear and tear, damage, and material cross-contamination. Secondary processing is a prerequisite to make marketable material, adding additional MRF costs. California glass recyclers have seen a net decrease of total glass recycling in the past 10 years<sup>44</sup>.

Glass is highly recyclable and redemption center glass is readily usable for bottle manufacturing. Recycled glass saves 30% energy use over virgin glass, reducing CO2 emissions by 30%. California has in-state capacity to turn more recycled glass into new bottles.

Returned whole glass bottles especially are suitable for reuse. California's 2021 AB 962 will allow refunds and processing payments for California Redemption Value (CRV) bottles that are washed for refilling.

As producers of over 800 million pounds of glass, the time has come for the wine and spirit industry and distributors to participate in supporting the California circular economy and help increase recycling, create jobs, reduce energy consumption and carbon dioxide emissions, and prevent landfilling of a highly recyclable and valuable material.

**Purpose(s):** This Policy addresses two issues. 1) Wine and spirits are not part of California's beverage container deposit system; and 2) The recycled content of imported bottles cannot be verified. This exclusion means that consumers lack opportunities to recycle glass through buy-back centers; that MRFs are denied revenue for the non-deposit glass that is recovered; and that high quality redemption glass excludes wine and spirits.

**Proposal(s):**

Wine and spirits should be included in California's current CRV container redemption program.

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<sup>43</sup> <https://www2.calrecycle.ca.gov/Docs/Web/118308>

<sup>44</sup> <https://www.bottlebill.org/index.php/current-and-proposed-laws/usa/california>; for full data see California's Beverage Container Recycling and Litter Reduction Program Fact Sheets at <https://www2.calrecycle.ca.gov/Publications/>

Inclusion of wine and spirits in the CRV program is an obvious solution to improving post-consumer glass quality and supply and increasing the recycling of other containers including aluminum and plastic bottles containing wine and spirits. Since wine and spirits are also sold in plastic and metal containers, those should also be included in the CRV program.

Over the past few years, the industry has seen an increase in single- serving “nips” that are contributing to litter in California. Inclusion of wine and spirits into the CRV program will increase the supply of clean redemption material needed for the California circular economy and will mediate and assist local governments by reducing litter.

Minimum post-consumer content requirements for glass beverage containers should be extended to all containers sold in California. The existing 35% standard should be increased to 50%.

As these policies are refined, the Commission supports having wine and spirit bottles reused and refilled to the extent possible and practical as a higher priority than crushing and recycling.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Legislation is required to include wine and spirits in the CRV program; and to apply recycled content requirements to glass containers sold in California.

**Possible 2022 Legislative Priority?** Yes, glass wine and liquor containers need to share in statewide systems costs; and glass minimum content requirements need updating to match other container standards.

**Does this proposal require additional funding or changes to resource allocation?** Enforcement would require additional funding, potentially through distributor or manufacturer fees sufficient to verify compliance.

**Related Issues:** CRV program reform and refillable container policies are related to this proposal.

# **Policy 21-25: Personal care fiber-derived products recycled content requirements**

**Adopted:** June 2021

**Authors** Manuel Medrano

## **Background:**

The market for single-use paper and personal care products made from forest fiber is a significant and growing driver of the loss of some of the world's most important, climate-critical forest ecosystems. Each year, vast areas of boreal, temperate, and tropical forests find a fate in toilets and trashcans in households across the country, driven by consumer goods companies that continue to rely on forest fiber to make their throwaway products.

Conserving primary forests is not the only opportunity lost to these single-use forest products like toilet paper, paper towels, printing paper, and cardboard. 100% forest fiber products also stunt the growth of the recycling sector, which has significant potential for expansion. Recycling paper fibers into single-use products rather than trashing them saves water and energy in the production system, reduces air, water, and land pollution, and presents an opportunity for local economic growth and local job creation.

Placing economic penalties on companies that make throwaway paper and tissue products from virgin forest fiber and investing that revenue into the development of the recycling sector, as this policy does, will harness the opportunities both around forest protection and the recycling sector. Its aim is to drive greatly needed transformative change toward more sustainable, circular economies that reduce pressure on climate- and species-critical forests while generating more local jobs and alleviating waste.

## **The Tissue and Paper Sector's Forest Impact**

The use of forests to produce single-use paper and tissue products is a key driver of climate change and biodiversity loss globally. Forest protection, just like decarbonization, is an essential pillar of addressing climate change, as forests absorb one-third of all human-caused greenhouse gas emissions annually. Forests are also vast carbon storehouses, locking away nearly twice as much carbon as is in the world's oil, coal, and gas reserves combined. Forests also harbor 80% of the world's terrestrial biodiversity, making their protection critical to avoiding global species collapse.

The Canadian boreal forest is especially vital for the climate and North America's wildlife. It stores twice as much carbon as the world's oil reserves and is a refuge for treasured species

like the boreal caribou and the nesting ground for billions of migratory songbirds seen in backyards across the United States. The boreal is also home to over 600 Indigenous communities who have depended on and stewarded the forest for millennia.

However, we are continuing to lose the boreal and other

forests at an alarming rate, in part to feed demand for tissue and paper products like toilet paper, paper towels, printing paper, and cardboard. Each year, over a million acres of Canadian boreal are clearcut, in part to produce the wood pulp that gets turned into toilet paper and other tissue and paper products, with the final product chemically bleached to whiten and soften.

Irresponsible destruction and degradation of our forests is also contributing to the biodiversity crisis. More than 75 percent of global land areas have been significantly altered by human activities, undermining the wellbeing of the 3.2 billion people that rely on them for vital ecosystem services. Land conversions are the leading driver of nature's decline in terrestrial ecosystems, helping threaten a million species with extinction. In fact, more than 500,000 terrestrial species are "dead species walking," with insufficient habitat for long term survival. To counter these alarming trends, we should be doing the opposite of destroying forests.

Despite these impacts on forests, much of what is produced and sold in stores has little to no recycled content. For example, none of the most popular at-home toilet paper brands contain any recycled content, driving a "tree-to-toilet pipeline," whereby trees from the climate-critical boreal are clearcut for a fate in U.S. bathrooms. Brands like Charmin, Cottonelle, Angel Soft, and Puffs are all made entirely from trees, despite sustainability commitments from their parent companies. Their failure to transition away from their forest-based supply chains is exacerbating climate impacts, driving species declines, and making U.S. purchasers unwittingly complicit in driving primary forest loss.

Without policies to ensure these products incorporate more sustainable materials, the impacts will only worsen. Tissue products, including facial tissues, paper towels, napkins, and toilet paper are the fastest-growing sector of the international paper industry. In the United States, we consume more than 15 billion pounds of tissue each year. That means we currently buy, use, and flush about 20 percent of the world's supply of tissue products, even though we account for just over 4% of the world's population. The global pulp and paper market are also continuing to grow, despite the rise of digital media, with a projected increase of 0.8% between 2019 and 2027. This rapid demand growth makes it imperative that companies transition to more sustainable materials and supply chains that both alleviate pressure on the world's climate-critical forests and bolster the circular economy through driving investments in the recycling sector.

<https://www.globenewswire.com/news-release/2020/08/13/2078087/0/en/Pulp-and-Paper-Market-Size-to-Reach-USD-368-10-Billion-by-2027-Rising-Usage-of-Smartphones-Internet-to-Boost-Growth-Says-Fortune-Business-Insights.html>.

## **Virgin Fiber Versus Recycled Content**

Virgin fiber is by far the most environmentally destructive and the most common source of tissue and paper pulp. There are two types of virgin pulp: softwood and hardwood. Hardwood pulp comes from deciduous trees, whereas softwood pulp derives from spruce and other coniferous trees from regions such as the southeastern United States and the Canadian boreal. <sup>(i)</sup>

Northern bleached softwood kraft (NBSK), a type of softwood pulp for which Canada is known, is the most desired grade of softwood pulp for tissue products in the United States. Toilet paper and facial tissue in North America typically consist of between 20 to 40% NBSK pulp, while paper towels consist of between 25 and 75%. To make pulp using virgin fiber, a pulp mill turns logs into wood chips and sends them through a harsh water and energy-intensive chemical process to remove lignin and other natural adhesives from the wood's fibers, known as cellulose.<sup>68</sup> It is then sent through a chemical bleaching process to whiten the pulp.<sup>(ii)</sup>

Although tissue itself is generally not recyclable, it can be made of content that has been recycled. Postconsumer content is material that, instead of being thrown away, is reused after serving its initial purpose. Using post-consumer recycled content in tissue products creates a significantly smaller environmental footprint than does virgin fiber because wood does not need to be harvested from a forest to be turned into pulp, and the chemicals used in its whitening process are far less toxic than those used to bleach virgin fiber pulp.<sup>(iii), (iv)</sup>

Using recycled materials in paper products considerably reduces the climate impact of these goods. Because forests are vital for storing and sequestering carbon, tissue products made from virgin fiber have a substantially higher carbon footprint than those made from other materials. Recycled content also creates more sustainable, circular supply chains that divert paper from landfills where it creates methane, a powerful greenhouse gas. The transportation impacts of recycling are also less than virgin fiber procurement. Recycled content also reduces the need for chemicals and water.

Because of this, paper and tissue products made from recycled material have one-third the carbon footprint of those made from virgin forest fiber. In fact, every ton of 100% recycled fiber copy paper saves 17 million BTUs over virgin paper, enough to power the average U.S. home for more than two months.<sup>(V)</sup> While some companies have begun incorporating recycled content into their at-home brands, much of what is found on store shelves continues to be made from virgin forest fiber. As a result, the need for recycled fibers is now as urgent as ever, and environmentally sustainable alternative fibers, such as wheat straw, will also be pivotal in preventing increased demand for tissue products from destroying the world's remaining intact forests

### **Recycled Content Availability**

Recycling technologies are becoming increasingly efficient, sophisticated, and cost-effective. In 2012, 57% of the paper and paperboard produced globally was recovered and recycled, and that figure is expected to increase to 64% by 2028. In 2018, the American Forest & Paper Association reported 67.2% recovery. In 2013, 80.4% and 85% of paper was recycled in Japan and Australia, respectively, demonstrating a significant recovery gap that the U.S. could achieve through greater investment in recycling infrastructure. <sup>(VI)</sup>

In 2018, when China implemented new restrictions on imports of waste materials under the China SWORD Policy, reducing imports by 96.5 percent between 2017 and 2018, fiber stores in the U.S. increased dramatically. After China SWORD's implementation, California's exports of unsorted mixed paper declined 56 in 2018. This unprecedented supply spurred widespread expansion of U.S. paper mills' capacity to process recycled fiber. By November 2018, 17 North American paper mills had announced capacity increases, including 15 in the U.S. and two in Mexico. <sup>(VII)</sup>

This dynamic presents unprecedented opportunities for growing California's recycling infrastructure and capitalizing on the expanded market for U.S.-processed recycled pulp and paper.

(I) [https://environmentalpaper.org/wp-content/uploads/2018/04/StateOfTheGlobalPaperIndustry2018\\_FullReport-Final-1.pdf](https://environmentalpaper.org/wp-content/uploads/2018/04/StateOfTheGlobalPaperIndustry2018_FullReport-Final-1.pdf).

(II) Ibid.

(III) <https://www.wastedive.com/news/nerc-recycled-paper-capacity-increasing-at-17-north-american-mills/542618/>.

(IV) <https://www.epa.gov/smm/comprehensive-procurement-guidelines-paper-and-paper-products>.

Ibid.

(V) Environmental Paper Network's Paper Calculator. [www.papercalculator.org](http://www.papercalculator.org).

(VI) U.S. EPA. <http://www.epa.gov/osw/nonhaz/municipal/pubs/msw06.pdf>

(VII) U.S. EPA. <http://www.epa.gov/garbage/facts-text.htm>

### Existing Recycled Content Standards

Procurement standards at both the state and federal level include requirements for recycled content in pulp and paper products. The federal government's Comprehensive Procurement Guidelines require up to 30% postconsumer fiber for various uncoated printing and writing papers, and 10% for coated papers. For sanitary tissue products, it has the following requirements:

### Recommended Recovered Fiber Content Levels for Commercial/Industrial Sanitary Tissue Products

Product	Postconsumer Fiber (%)	Total Recovered Fiber (%)
Bathroom Tissue	20-60	20-100
Paper Towels	40-60	40-100
Paper Napkins	30-60	30-100
Facial Tissue	10-15	10-100
General Purpose Industrial Wipes	40	40-100

Under California's current procurement standard, paper products must be certified to one of three third-party certification programs and/or contain a minimum of 30% postconsumer recycled content to be deemed Environmentally Preferable (EPP). Paper janitorial commodities similarly need to be certified under one of two third-party certification programs and/or contain a minimum of 30% postconsumer recycled content to achieve EPP designation. Given the standard's deference to certification standards, including standards like the Sustainable Forestry Initiative (SFI) that fail to achieve critical environmental safeguards, this standard is far too lenient to align California's procurement with sustainability and climate change priorities.



In 2019, California's legislature passed AB-792, which designated requirements for minimum recycled content in plastic containers. It constructed "a tiered plan that would require the total number of plastic beverage containers contains, on average, no less than 50% postconsumer recycled content per year" beginning in 2030 and established civil penalties for failure to comply. While Governor Newsom vetoed the bill, citing cost, it provides a valuable model for recycled content legislation for the paper sector and illustrates the feasibility of similar recycled content measures passing through the legislature.

<https://www.dgs.ca.gov/PD/Resources/Find-EPP-Goods-and-Services>.

Ibid.

<https://www.nrdc.org/experts/courtenay-lewis/fsc-canada-pulls-even-further-ahead-pack>.

### **Purpose(s): Increasing the Recycling Goal**

California legislators have already begun recognizing the need to address the state's role in driving boreal forest loss. Assembly Bill 416, which is co-sponsored by NRDC, Friends of the Earth US, Social Compassion in Legislation, and Peace 4 Animals, addresses the role that the state government's consumption plays in driving the loss of tropical and boreal forests, requiring that all state contracts involving certain forest-derived products ensure that contractors have policies in place to prevent deforestation, primary forest loss, and violations of Indigenous rights. This bill takes the important step of recognizing the interconnectedness of our consumption here in the U.S. and unsustainable forest destruction and puts in place key safeguards to protect these climate-critical ecosystems.

The policy proposed here would build on this bill, addressing the unsustainability of single-use forest products across California's marketplace. It would do so by placing penalties on single-use brands that fail to meet certain thresholds for recycled content or alternative fibers. These penalties would help capture the climate externalities that benefit companies at the expense of present and future generations and help drive better, more sustainable production practices. In addition, revenue from these penalties would be invested in local recycling industries, creating green jobs and diverting waste from landfills for use in tissue and other products.

To allow time for implementation and companies to gradually transition their materials, this policy would include a phase-in approach on the following timeframe;

(1) Between January 1, 2022, and December 31, 2025, inclusive, all tissue products for sale in the state shall include no less than 10 percent recycled content.

(2) Between January 1, 2026, and December 31, 2029, inclusive, all tissue products for sale in the state shall include no less than 50 percent recycled content.

(3) On or after January 1, 2030, all tissue products for sale in the state shall include no less than 90 percent recycled content.

Monetary penalties would also be based on an increasing sliding scale, with higher penalties for products with lower rates of compliance. The scale would be according to the following, with each Level assigned a corresponding penalty amount:

- a) If a tissue manufacturer's given product line has an overall compliance rate of at least 75 percent but less than 100 percent of the minimum recycled content requirements pursuant to subdivision (b), that shall be a Level 1 violation.
- b) If a tissue manufacturer's given product line has an overall compliance rate of at least 50 percent but less than 75 percent of the minimum recycled content requirements pursuant to subdivision (b), that shall be a Level 2 violation.
- c) If a tissue manufacturer's given product line has an overall compliance rate of at least 25 percent but less than 50 percent of the minimum recycled content requirements pursuant to subdivision (b), that shall be a Level 3 violation.
- d) If a tissue manufacturer's given product line has an overall compliance rate of at least 15 percent but less than 25 percent of the minimum recycled content requirements pursuant to subdivision (b), that shall be a Level 4 violation.
- e) If a tissue manufacturer's given product line has an overall compliance rate that is less than 15 percent of the minimum recycled content requirements pursuant to subdivision (b), that shall be a Level 5 violation.

This policy would also establish a labeling system for single-use products so that purchasers have a credible means to help them make more sustainable choices. Products would display labels indicating a minimum postconsumer recycled content threshold and ensuring that any remaining virgin forest fiber in the product was not sourced from primary or intact forests or in violation of Indigenous Peoples' right to free, prior and informed consent to logging operations on their land.

This policy would place California at the forefront of transformative solutions to build back better and create a more sustainable, just future. Tree-free pulps are obvious choices for our climate, biodiversity, and local communities, and in spurring the growth of these more sustainable supply chains, California would help to create industrial production systems that are environmentally sustainable over future generations.

CalRecycle will be tasked with developing a system for product verification, along with developing a cost-recovery, producer-funded method for verifying sources.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Yes.

**Possible 2022 Legislative Priority?** Highest priority, should be considered as part of other recommended actions

**Does this proposal require additional funding or changes to resource allocation?** No

**Proposal(s):** This policy recommendation is:

- Require progressively increasing to 90% post-consumer recycled content of all personal care fiber derived products sold in California,
- Promote in-state production of recycled content paper pulp by requiring that the content of pulp is derived from California MRF's,
- Create a label to designate products that contain a minimum level of postconsumer recycled content and meet certain sustainability standards.

**Enforcement:** Product registration and modulated fee, reduction in fee as recycled content increases. Fee schemes per sales for fairness to smaller producers.

**Related Issues:** This proposal is related to the CalRecycle Market Development Focus proposal

# Policy 21-33: Composting GHG Emission Reductions

**Authors:** Cadena, Davis

**Adopted:** December 1, 2021

## **Addresses Which Commission Goals):**

- 1) 75% goal following waste management hierarchy of waste reduction first, then recycling & composting, then disposal environmentally safe transformation and land disposal.
- 2) Market Development (increase market demand for post-consumer waste materials, increase demand for recycled content products, promote high quality feedstocks, promote competitive collection and use of secondary waste materials),
- 3) Meet methane emission reduction goals to reduce organics disposed in landfills (50% by 2020, and 75% by 2025 from 2014 levels)

**Background:** The California Air Resources Board published its Final Draft “Method for Estimating Greenhouse Gas Emission Reductions from Diversion of Organic Waste from Landfills to Compost Facilities” in May 2017<sup>45</sup>. Using a life-cycle method, the document quantifies California-specific GHG emission reductions from diverting organic waste from landfills and avoiding methane emissions, and reductions from compost use as well as emissions associated with compost production.

Values for food waste, yard trimmings and mixed organics show that 1 ton of material results in 0.44 to 0.62 Metric Tons of Carbon Dioxide Equivalent (CO<sub>2</sub>E) reduction. CARB uses the draft factors in its Benefits Calculator Tool as part of the California Climate Investments quantification methodology. CalRecycle’s Waste Diversion, Organics Composting, Community Composting, Anaerobic Digestion/Co-Digestion, Food Waste Prevention and Rescue Grants utilize CARB’s calculations<sup>46</sup>.

CARB’s Compost Emission Reductions Factors (CERF) shows methane as 25 times CO<sub>2</sub>E, consistent with California’s AB 32 GHG inventory using the Intergovernmental Panel on Climate Change’s 2007 Fourth Assessment Report Global Warming Potential (GWP).

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<sup>45</sup> CARB Method for Estimating Greenhouse Gas Emission Reductions from Composting of Commercial Organic Waste (2017) <https://www.arb.ca.gov/cc/waste/cerffinal.pdf>

<sup>46</sup> <https://ww2.arb.ca.gov/resources/documents/cqi-quantification-benefits-and-reporting-materials?corr>

However, the CO<sub>2</sub>E approach understates the methane reduction when measured as a Short-Lived Climate Pollutant (SLCP) under SB 1383. Methane has 84 times carbon dioxide's GWP when measured on its 20-year atmospheric life than CO<sub>2</sub>'s 100 years<sup>47</sup>. Composting one ton of organic material reduces 0.71 to 1.31 tons of CO<sub>2</sub>E with this SLCP approach.

Edible food recovery, anaerobic digestion and community composting projects also reduce methane emissions, which are more accurately measured as short-lived climate pollutants.

**Purpose(s):** California's needs substantial additional and expanded composting infrastructure to meet its Short Lived Climate Pollutant Reduction goals under SB 1383. Lead agency environmental review and land use permitting are local government responsibilities that benefit from reliable data and facility analysis. Updating CERF to show SLCP performance would inform local decisions, demonstrating positive environmental impacts.

CalRecycle worked with the Governor's Office of Planning and Research (OPR) to include recycling and composting in its 2017 General Plan Guidelines<sup>48</sup>. CEQA Guidelines require GHG emissions analysis, including consistency with California's climate goals<sup>49</sup>. Updated CERF/SLCP factors can inform that CEQA analysis by showing compost facilities' net positive impacts and their import role in meeting the state's goals.

CalRecycle is a CEQA responsible agency for compost projects because of its solid waste facility permit concurrence<sup>50</sup>. A responsible agency must consider the adequacy of environmental review and provide consultation with the lead agency to assist in preparing adequate project documentation<sup>51</sup>. CalRecycle should receive Notice of Preparation and Notice of Determination in its responsible agency role. In addition, the CEQA process relies on circulation through the State Clearinghouse<sup>52</sup>.

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<sup>47</sup> <https://www.ipcc.ch/report/ar5/wg1/> p. 714, 731

<sup>48</sup> <http://opr.ca.gov/planning/general-plan/>, Chapter 4, pp. 58-61, 177

<sup>49</sup> <https://opr.ca.gov/ceqa/ceqa-climate-change.html>

<sup>50</sup> <https://www.calrecycle.ca.gov/swfacilities/permitting/ceqa/overview/resagency>

<sup>51</sup> <https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-7-eir-process/section-15096-process-for-a-responsible-agency>

<sup>52</sup> <https://opr.ca.gov/sch/document-submission.html>

**Proposal(s):** To assure that compost facilities receive accurate project review, the Commission recommends that:

1. California Air Resources Board should update its Compost Emission Reduction Factors to include Short Lived Climate Pollutants
2. CalRecycle should work with the State Clearinghouse to assure that compost facility projects are identified
3. CalRecycle should prepare a response to CEQA lead agencies documenting compost facility GHG emission reductions to aid in environmental review and land use permitting decisions
4. CalRecycle should articulate its SB 1383 process to determine equivalence for non-composting or AD projects, focusing on equivalent reduction of organic materials impacts
5. ARB's Quantification Methodology for CalRecycle's Organics Programs should be updated to include Short Lived Climate Pollutant Factors for edible food recovery, anaerobic digestion, and community composting projects

**Related Issues:** Compost facility permitting

**Possible 2022 Legislative Priority?** No

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Air Resources Board to update factors for its programs

**Does this proposal require additional funding or changes to resource allocation?** No

# Policy 21-30: Label System for Products and Post-Consumer Management

**Primary Author(s):** Coby Skye and Jan Dell

**Adopted:** June 2, 2021

**Background:** Research by CalRecycle and The Recycling Partnership (TRP) shows that Californians are sending recyclable material to landfills and placing non-recyclable materials in curbside bins for recycling. Commonly recycled items comprised 22.8% of the state’s 2018 single-family residential disposal.<sup>53</sup> TRP found on average that 20% of materials delivered to California materials recovery facilities (MRFs) were not accepted by local curbside recycling programs.<sup>54</sup> California consumers apparently are confused about the correct destination for used materials, including whether an item is compostable, recyclable, disposable in curbside bins or is a toxic waste that should be returned via special collection. Improper disposal of hazardous items and contamination in curbside recycling, organics, and disposal bins is causing harm to workers, truck and facility damage including fires, costly processing problems, and lowering the quality and value of bales from material recovery facilities (MRFs).

Incorrect and confusing labeling of products is contributing to improper disposal and contamination. According to TRP, more than half of Californians think plastic bags and film plastic are accepted in their curbside recycling program, even though almost no California MRFs accept or recover them. Flexible food packaging is erroneously thought recyclable by 42% of Californians.<sup>55</sup> TRP focused on plastic bags in its West Coast report, and attributed residents’ beliefs in part to misunderstandings that all plastics are recyclable and that the chasing arrows recycle symbol means the item is recyclable curbside.

TRP also asked participants “If you want information about what items to recycle, where do you generally look for it?” Half responded that the information comes from the web, 30% from hauler or city sources including mailers and cart labels. Only 5% look to product labels for recycling information.<sup>56</sup>

Relying on internet sources is problematic. Searching “Which plastic can be recycled?” returns top ranked responses about resin numbers, reinforcing the notion that all plastics are recyclable. Product manufacturers may claim recyclability when their items are not commonly recycled (such as plastic beverage pods or plastic-lined paper food service products), or not recycled in the community of the person searching (“Check Locally” label).

Many municipal franchises include materials that no longer enjoy markets (e.g. mixed plastics (#3-7), but continue to be listed by communities and haulers on their websites, mailers or cart labels. Cart labels are especially troublesome and expensive to update.

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<sup>53</sup> CalRecycle, 2018 Disposal Facility-Based Characterization of Solid Waste in California, Table 8, page 22

<sup>54</sup> The Recycling Partnership, [2019 West Coast Contamination Initiative Research Report](#)

<sup>55</sup> The Recycling Partnership, West Coast Contamination Initiative Addendum, Figure 58, page 29

<sup>56</sup> The Recycling Partnership, [2019 West Coast Contamination Initiative Research Report, Figure 64, Page 31](#)

Greater reliance on recycling product labels offers advantages:

- A standardized list of California recycled products will inform statewide outreach and program design,
- Product manufacturers will have clear guidance and expectations on communicating compostability and recyclability claims in California,
- MRFs can focus on recovering a fixed set of products and marketable materials, and
- Contamination may be minimized by avoiding resident confusion.

California's large and diverse population of 40 million people warrants product labels that are customized to ensure Californians know whether discarded products should be composted, recycled, disposed, repaired, donated, or contain hazardous materials that should be returned via special collection. California's population is currently about 12% of the total United States population.

Under the FTC Green Guides (which are cross-referenced in California law as detailed in Appendix A.4), a company can make an unqualified recyclable claim so long as the product is recyclable in at least 60% of the communities in which it is sold. Thus, a company could label a product as recyclable in California based on its recyclability elsewhere even if no one in California can actually recycle it. While this practice would likely violate California's false advertising laws, it makes sense to have a recyclability standard in place that ensures that Californians can recycle the products they buy that are labeled as recyclable.

**California's Recyclable, Compostable and Hazardous Products Lists:** The California Statewide Commission on Recycling Markets and Curbside Recycling (Statewide Commission) is developing statewide definitions of "What is Recyclable" and "What is Compostable" in California. The definitions of recyclable and compostable materials are based on The Sustainable Packaging for the State of California Act of 2018, Public Resources Code 42370.2 which CalRecycle is addressing. California currently has a list of hazardous wastes and materials, as defined by the Department of Toxic Substance Control.<sup>57</sup>

To promote and ensure California consumer understanding of the California recyclable, compostable and hazardous lists, a simple statewide label system encompassing products, acceptance lists, and curbside bins is needed. In order to place materials at end of useful life in correct bins, and understand and return hazardous products via special collection, California's large, diverse, and dynamic consumer base must be able to easily look at labels, quickly, and correctly determine the correct management method for used products.

This label policy is meant to clearly label products that are identified as recyclable, compostable, or hazardous. This label policy does not intend to define specifically which products fall into each category as those definitions are currently defined by other state agencies or committees. The products that fall into these categories will change.

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Technological advances and market development may allow new items to be identified as recyclable or product designs could develop so that items are no longer hazardous. This label policy allows for clear product labels as defined and should be allowed or restricted simultaneously with authorized product definition changes.

Additional details are given in the “**Background Detail and Technical Basis**” section (Appendix A) below.

**Purpose(s):** The purpose of this policy recommendation is to create a consistent, statewide label system that will provide clear and easy-to-understand guidance for California consumers to correctly manage used items. The label system will consist of three parts: product labels, curbside bin acceptance lists, and curbside bin labeling. (Education and media materials and activities will be addressed separately and are not included in the policy recommendation).

There are wide-ranging benefits of this policy recommendation: reduced contamination in recycling and composting facilities, reduced worker hazards and harm, and reduced operating costs for waste haulers and MRFs, increased bale quality and value for MRFs, increased recycling and composting of approved products, and reduction of waste disposed in landfills.

The California statewide compostable and recyclable lists and this statewide label system will promote private investment in California recycling and composting infrastructure. A product cannot be claimed or labeled “recyclable” or “compostable” unless the products are on the California compostable and recyclable statewide lists which require credible and legal markets for recyclables or verified degradation in California composting facilities. This also motivates companies to redesign products to achieve acceptance on the California compostable and recyclable statewide lists.

There are minimal costs to consumers, MRFs, and/or city or state governments. Companies’ ability to sell products is not impacted. The requirement is that products must be correctly labeled as defined by California law.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Yes. CalRecycle would need to confirm with DTSC on what is considered hazardous material.

**Possible 2021 Legislative Priority?** Yes. Implementation of the policy would quickly achieve the benefits described above.

**Does this proposal require additional funding or changes to resource allocation?**

The labeling system would require an initial outlay of taxpayer funds (estimated to be \$1-3 million) for CalRecycle to develop statewide acceptance lists and bin labels for use by local recycling authorities. This cost to CalRecycle could potentially be covered by existing budget allocations for public education. Costs to correctly label products would be borne by

companies as normal cost of compliance. There also would be unknown ongoing costs for enforcement.

**Proposal(s):**

It is proposed that a three-part label system be created and implemented:

**1) Product Labels:**

- a. Hazardous: Products defined as hazardous by the DTSC must be labeled as “Hazardous” with the specific instructions on proper management and recycling or disposal options. Such products cannot be collected via curbside bins unless the local jurisdiction accepts the material as a local addition to its curbside household hazardous waste collection program.
- b. Compostable: Products defined as “compostable” would be allowed to have a (to be defined) “Compostable” symbol on the packaging and product. Examples are shown in Appendix B below. The word “compostable” may be employed on the product or packaging or both. Products not on the compostable list may not use composting-related symbols or variations of the word “compost,” or claim similar attributes such as “degradable” or “biodegradable”. Other organic discards not destined for composting may need additional labeling.
- c. Recyclable: Products defined as “recyclable” would be allowed to have a (to be defined) “Recyclable” symbol on the packaging and product. Examples are shown in Appendix B below. The word “recyclable” may be employed on the product or packaging. Products not on the recyclable list may not use recycle-related symbols, chasing arrows (♻️), triangles, a Mobius Loop, or variations of the word “recycle” on labels or claims.
- d. Disclosure Precautionary Principle: Products should disclose whether they are in compliance with the [Precautionary Principle Policy](#) developed by the Organics Committee
- e. Reusable: Refer to “Reusable Food Service Packaging” definitions in State regulations and related policy developed by the Commission. Existing CCR 17989.3 covers the definition of reusable food service packaging.

Acknowledging that the regulation above is already in force, the Commission adopted the following policy related to the use of the term ‘Reusable,’ especially with respect to labelling and the State Agency Buy Recycled Campaign.

Policy Proposal 21.11: Redefine Reusable Food Service Packaging

- f. Refillable: Criteria should be developed for specific products and product stewardship programs. In [CA Public Resources Code 14525](#), “Refillable beverage container means any aluminum beverage container, bimetal beverage container, glass beverage container, plastic beverage container, or other beverage container, holding 150 fluid ounces or less of beverage, which has a minimum deposit of three cents (\$0.03), and which ordinarily would be returned to the manufacturer to be refilled and resold.”
- g. Repairable: As part of a comprehensive Circular Economy law, France adopted repairability labeling. To fight against the practice of planned obsolescence, certain electric and electronic products must display a “repairability rating” starting in 2021, and a “durability rating” starting in 2024.<sup>58</sup> The new repairability rules require manufacturers to display ratings that are calculated using five measures: ease of repairability, price of spare parts, availability of spare parts, availability of repair documentation and a final measure that varies depending on the type of device.
- i. California-based iFixit rates repairability of smartphones, tablets and laptops. Their engineers disassemble and analyze each device, assigning a repairability score between 0 and 10, with 10 being the easiest to repair. A device with a perfect score will be relatively inexpensive to repair because it is easy to disassemble and has a service manual available. Points are docked based on the difficulty of opening the device, the types of fasteners found inside, and the complexity involved in replacing major components. Points are awarded for upgradability, use of non-proprietary tools for servicing, and component modularity.<sup>59</sup>
  - ii. Durable products like electronics and appliances would benefit from information not just on how the end-user should recycle it at the end of life, but also information on how the end-user can keep the item in service for its originally intended use for as long as possible. For example: products might be labelled, maybe with a QR code or some other associated documentation like serial number or model number, which directs users to a web-based repository with information on repair, maintenance, and servicing of that product.<sup>60</sup>
- h. Private Takeback Programs: Products that are not on the California compostable or California recyclable lists and are collected via private takeback schemes may use labels such as “Store Dropoff” or “Return to Company.” But they may not use the word, symbol, or claim of “recyclable” or “compostable” to

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<sup>58</sup> <https://www.ecologie.gouv.fr/indice-reparabilite>

<sup>59</sup> <https://www.ifixit.com/tablet-repairability>

<sup>60</sup> Peter Mui comments, Draft Labeling and Media Committee Meeting Notes Oct 13 2020, Appendix I, Page 3  
<https://www2.calrecycle.ca.gov/PublicNotices/Details/4303>

distinguish from products intended to be recycled or composted via curbside collection programs.

- i. Other Products: Products not on the California hazardous, compostable, or recyclable Lists should be disposed of as non-hazardous waste. These products may be labelled as “Trash Only” or “Landfill Only,” but are not required to be labelled unless required by specific legislation.

## 2) **Compostable and Recyclable Acceptance Lists and Graphics:**

- a. CalRecycle will develop simple and understandable statewide acceptance lists and graphics that are consistent with the California compostable, recyclable, and hazardous lists. The acceptance lists and graphics will provide easy-to-follow guidance for proper placement of items in curbside bins or hazardous item return instructions. Graphics on products or packaging should be legible to persons viewing the information, including size and color contrast.
- b. CalRecycle will create graphics and education materials for local use at low cost.
- c. **Locally Accepted**: In addition to the items on the compostable and recyclable lists, local authorities may add additional “Local Accepted” items to their Acceptance Lists if the items are compostable or recyclable in their area. For example, if a local MRF accepts and recovers items not collected statewide, the local acceptance list could include the specific item. However, the Locally Accepted item cannot be labeled or claimed as recyclable or compostable throughout the state.

## 3) **Curbside Bin Labeling:**

- a. Bins shall be labeled in a manner consistent with the standard labeling requirements of the SB 1383 regulations Section 18984.8.
- b. CalRecycle shall provide model labels for use by local jurisdictions.
- c. CalRecycle should consider revising Section 18984.8 to focus on primary materials accepted in bins. Including primary materials not accepted means that all bins must show all primary materials, since they are either accepted or not in a given bin.

**Schedule for Implementation:** The estimated time required for implementation is two years.

### **Related Issues:**

When the Statewide Recycling Commission identifies full lists of “Recyclable” and “Compostable” products, those lists will be employed in the labeling system described in this policy.

## APPENDIX A: Background Detail and Technical Basis:

### 1. Consistent Statewide Label System is Needed

California's composting and recycling systems are suffering from inadequate, confusing, and incorrect product labels, jumbled acceptance lists and inconsistent curbside bin labeling. Guidance on management of wastes has been led at the local level resulting in hundreds of different recycling acceptance lists across the state.

This local approach to creating recyclable and compostable acceptance lists has been overly complex, burdensome to local authorities and has failed to keep contamination out of recycling and composting systems. As Californians regularly move within or work in different areas of the state, the local variance in acceptance list format is problematic.

For recycling, China's National Sword restrictions on the exports of collected materials has brought new understanding that there are actually common statewide material markets and a shared shortlist of material buyers. As a result, there should also be a common statewide acceptance list for Compostable and Recyclable products.

### 2. Why do Truthful Claims and Labels on Products Matter? (Adapted from Circular Claims Fall Flat, February 2020<sup>61</sup>).

Accurate claims and labels on consumer products serve three valuable functions:

- 1) **Honest Advertising to Consumers:** Claims and labels on products inform customers whether there is a potential environmental benefit to one product compared to another. Since claims and labels affect a consumer's purchasing decisions, the claims and labels must not be misleading to be legal.<sup>62</sup>
- 2) **Prevent Harm to California's Composting and Recycling System and Avoid Wasted Energy, Labor and Costs:** Incorrect labels cause consumers to mistakenly place an item in a recycle or compost bin and cause contamination in material recovery facilities (MRFs) and composting facilities. For recycling, the contamination harms the ability of the MRFs to cost-effectively collect and sort other materials such as cardboard and paper that are easily ruined by contact with food-soiled packaging.<sup>63</sup> Energy, carbon emissions, labor and costs are wasted from collecting and sorting unwanted, worthless items through sorting systems.<sup>64</sup> Similarly, the contamination in composting facilities wastes energy and labor for additional sorting and increases residual disposal to landfills.
- 3) **Identify Products for Redesign to Reduce Waste and Pollution:** Consumer products that are not practically compostable or recyclable in municipal systems

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<sup>61</sup> Greenpeace, [Circular Claims Fall Flat](#), February 2020.

<sup>62</sup> [FTC Green Guides](#) Website.

<sup>63</sup> Recycling Today, "[The heavy toll of contamination](#)," April 19, 2017.

<sup>64</sup> Rubicon, "[What is Recycling Contamination, And Why Does it Matter?](#)," December 4, 2017.

should be the first to be eliminated or redesigned, preferably to reusable products, or be made from more environmentally advantageous materials.

Companies have marketed consumer products as having an environmental benefit, such as being recyclable, since the 1980s.<sup>65</sup> Product and packaging manufacturers are pressuring MRFs and composting facilities to accept their products to make them appear redeemable and avoid bans. As the nation's largest waste collection and sortation company, Waste Management, stated in their 2018 Annual Report, "bans have increased pressure by manufacturers on our recycling facilities to accept a broader array of materials in curbside recycling programs to alleviate public pressures to ban the sale of those materials. However, with no viable end markets for recycling these materials, we and other recyclers are working to educate and remind customers of the need for end market demand and economic viability to support sustainable recycling programs."<sup>66</sup>

### 3. Summary Review of Existing U.S. Federal and California State Label Laws

The California Business and Professions Code §17580.5 makes it "unlawful for any person to make any untruthful, deceptive, or misleading environmental marketing claim, whether explicit or implied." Pursuant to that section, the term "environmental marketing claim" includes any claim contained in the Guides for use of Environmental Marketing Claims published by the FTC (the "Green Guides").<sup>67</sup>

The Federal Trade Commission's Green Guides<sup>68</sup> were issued to help marketers ensure that the claims they are making are true and substantiated. For "recyclable" claims, the FTC advises that:

- Marketers should qualify recyclable claims when recycling facilities are not available to at least 60 percent of the consumers or communities where a product is sold.
- The lower the level of access to appropriate facilities, the more a marketer should emphasize the limited availability of recycling for the product.
- If recycling facilities for a product are not available to at least 60 percent of consumers or communities, a marketer can state, "This product may not be recyclable in your area."
- If recycling facilities for a product are available to only a few consumers, a marketer should use stronger qualifying language: "This product is recyclable only in the few communities that have appropriate recycling programs."

For "compostable" claims:

- Marketers who claim a product is compostable need competent and reliable scientific evidence that all materials in the product or package will break down into — or

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<sup>65</sup> Business for Social Responsibility, "[Eco-promising: communicating the environmental credentials of your products and services](#)," April 2008.

<sup>66</sup> Seeking Alpha, "[Waste Management 10-K for the Year 2018](#)," filed on 2/14/2019.

<sup>67</sup> [California Business and Professions Code § 17580.5](#)

<sup>68</sup> <https://www.ftc.gov/tips-advice/business-center/guidance/environmental-claims-summary-green-guides>

become part of — usable compost safely and in about the same time as the materials with which it is composted.

- Marketers should qualify compostable claims if the product can't be composted at home safely or in a timely way.
- Marketers also should qualify a claim that a product can be composted in a municipal or institutional facility if the facilities aren't available to a substantial majority of consumers.

**APPENDIX B: Visuals Bin labels on inside bin cover**  
**Labels need to be legible on covers; use graphics and single words**  
**Test with consumers**  
**Bin labels update when replaced**

Proposed Labeling Scheme

**1. Lids on Bins**

**2. Acceptance Lists: Simple Text & Photos in Multiple Languages**

**Notes:**

- 1) Dual Stream May Add Another Bin
- 2) Stickers could be put on lids – no need to replace bins
- 3) Labels required on commonly disposed consumer products

**3. Labels on Common Consumer Products – Especially Single Use**

Logos should be tested with consumers

Label Options - Logos

Icon  
TBD

Icon  
TBD

Icon  
TBD



# Policy 21-34: Request for Enforcement of Labeling Laws re Plastic Bags & Films



## CALIFORNIA STATEWIDE COMMISSION ON RECYCLING MARKETS & CURBSIDE RECYCLING

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December 3, 2021

To: CalRecycle Director Rachel Machi-Wagoner, via email

### **SUBJECT: Request for Enforcement of California Laws on Recyclable Labels on Plastic Bags and Films**

California's Statewide Commission on Recycling Markets and Curbside Recycling consists of representatives of public agencies, private solid waste enterprises, and environmental organizations. We are an independent commission chartered by California law to improve curbside recycling and organics management. Contamination of recycling and organics bins are at an all-time high, causing serious economic, safety, and environmental harms.

Flexible plastic bags and film are a major source of contamination in curbside recycling bins. The flexible plastic materials are harming curbside recycling systems by clogging machinery in material recovery facilities (MRFs) and fiber processors. There is not a comprehensive store takeback system for plastic bags or film in California. In MRFs, the plastic bags and film contaminate paper and cardboard bales and lower the quality and material value of the paper bales. Flexible plastic bags and films that depict the word "recycle" or the chasing arrows recycling symbol cause consumer confusion and contribute to contamination.

We write to request that California's existing laws on labeling of plastic bags be enforced and that retailers and product manufacturers be required to remove the word "recycle," "recyclable" and/or the recycling symbol from plastic bags and plastic films. Based on existing California law, it is our opinion that recyclable labels used on many plastic bags and films in California described below are not legal in State of California and are contributing to consumer confusion and contamination. Furthermore, it is our opinion that the recycling label (sometimes depicted as chasing arrows) is not compliant with the United States Federal Trade Commission (FTC) Green Guides and is not legal in the United States (U.S.). We also request that a portal be established for receiving complaints regarding inappropriate labeling of other products.

Common label errors on plastic bags and films distributed in California are described below. In Appendix 1, Table 1 provides a summary of plastic bags and films distributed by retailers and sold by product companies in California in 2021 that have incorrect recyclable labels. Photos and details of each bag are also provided in Appendix 1.

### **Common Label Errors on Plastic Bags and Films**

- 1) **"100% Recyclable" or other forms of "Recyclable."** Use of the word "recyclable" in any form is not correct because plastic bags are not widely accepted in curbside bins in California or across the U.S. Mixed post-consumer plastic film waste has minimal-to-no market demand or current processing. This text should be eliminated from the bag.

- 2) **“Can be recycled at a participating store” or “Store Dropoff.”** There is not a comprehensive store takeback system in California. California law (Cal. Bus. & Prof. Code § 17580 and Cal. Pub. Res. Code § 42355.5) and the federal Green Guides (16 C.F.R. § 260.2) require substantiation for recycling for claims such as this. It is our opinion that this claim is not provable. This text should be eliminated from the bag.
- 3) **Large chasing arrows recycling symbol.** The FTC Green Guides only allow small resin identification codes on non-recyclable plastic products in inconspicuous locations<sup>69</sup>. We recommend changing the chasing arrows to a solid triangle and minimizing the size to make it inconspicuous.

These labels will likely cause consumers to place the bag in curbside recycle bins.

### **The Harms Caused by Plastic Film Contamination**

According to The Recycling Partnership (TRP), more than half of Californians think plastic bags are accepted in their curbside recycling program, even though plastic bags are a top contaminant. This behavior is driven by the misunderstanding that the chasing arrows recycling symbol means the item is recyclable curbside and the recycling system will fix mistakes that the residents make. The brands know this is a problem: The Consumer Brands Association comprised of companies such as Coca-Cola, Keurig-Dr. Pepper, and Kellogg’s published a report called “Reduce, Reuse, Confuse” that states on page 6 “92% of Americans did not understand the labels: 68% said they assume that any product with symbols for all seven codes would be recyclable. Upon learning that only two of the seven codes were typically recyclable curbside, 73% were surprised”.

In CalRecycle’s 2018 Waste Characterization Report, it was reported that 3.4 billion lbs. per year of plastic bag film and wrap waste was generated. (This amount does not include plastic bags intended for use as trash bags.) In the same report, CalRecycle states that plastic bag, film and wrap contamination is the largest type of contamination in curbside recycling bins at 12% by weight. Since plastic films are very light, the contamination volume is much higher.

According to TRP: “Plastic bags cause MRF operators to shut down the recycling line many times a day to cut off bags that have wrapped around equipment. This maintenance shut down reduces throughput for a facility, raises cost of labor to sort materials and maintain equipment, increases waste coming out of the MRF, and puts workers at risk of injury when they are performing maintenance.”

MRFs and paper/cardboard processors agree that contamination of paper bales by plastic bags/films is a significant, costly problem. Paper/cardboard is a vital, valuable resource that must be recycled to avoid sourcing new feedstock (trees). Plastic contamination lowers the quality and material value of the paper and cardboard bales.

### **Next Steps**

We look forward to your response and action on this matter.

Sincerely,

Heidi Sanborn, Chairperson, Richard Valle, Vice-Chair, and all  
Commissioners

cc: California Attorney General, Rob Bonta, via online submission

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<sup>69</sup> U.S. FTC Green Guides, 260.13 (d) Example 8.

California State Legislature, via email

Appendix: Common labeling errors on plastic bags and films

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## Appendix 1. Examples of Plastic Bags and Films with Incorrect Recyclable Labels Distributed in California in 2021

### Common Label Errors on Plastic Bags and Films

- 1) **“100% Recyclable” or other forms of “Recyclable.”** Use of the word “recyclable” in any form is not correct because plastic bags are not widely accepted in curbside bins in California or across the U.S. Mixed post-consumer plastic film waste has minimal-to-no market demand or current processing. This text should be eliminated from the bag.
- 2) **“Can be recycled at a participating store” or “Store Dropoff.”** There is not a comprehensive store takeback system in California because (1) it is not required by law and (2) mixed post-consumer plastic film waste has few-to-no buyers so there is no reason for stores to voluntarily collect it. California law (Cal. Bus. & Prof. Code § 17580 and Cal. Pub. Res. Code § 42355.5) and the federal Green Guides (16 C.F.R. § 260.2) require substantiation for recycling for claims such as this. It is our opinion that this claim is not provable. This text should be eliminated from the bag.
- 3) **Large chasing arrows recycle symbol.** The FTC Green Guides only allow small resin identification codes on non-recyclable plastic products in inconspicuous locations.<sup>1</sup> We recommend changing the chasing arrows to a solid triangle and minimizing the size to make it inconspicuous.

These labels will likely cause consumers to place the bag in curbside recycle bins.

### Table #. Summary of Plastic Bags Distributed in California with Incorrect Recyclable Labels

Ref #	Retailer/Product	Incorrect Label Requiring Enforcement and Elimination
1	99cents Only Store Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recyclable in your supermarket bin”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
2	Airspace Plastic Ecommerce Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
3	Albertsons Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “Recycle”</li> <li>• Chasing arrows recycling symbol:</li> <li>• “Please return this bag to a participating store for recycling”</li> <li>• “Recyclable”</li> </ul>
\$	Albertsons Pavilions Plastic Bread Bag	<ul style="list-style-type: none"> <li>• “Window film is polypropylene #5 and is recyclable”</li> <li>• Recycle symbol</li> </ul>
5	Aldi Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “100% Recyclable”</li> <li>• “Can be recycled at participating store”</li> <li>• Large recycle symbol</li> </ul>

<b>Ref #</b>	<b>Retailer/Product</b>	<b>Incorrect Label Requiring Enforcement and Elimination</b>
6	Aldi Tortilla Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
7	Amazon Plastic Pouch	<ul style="list-style-type: none"> <li>• “Remove Paper Label Before Recycling”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
8	Amazon Whole Foods Paper Towel Plastic Bag	<ul style="list-style-type: none"> <li>• “Please attempt to recycle plastic wrap if facilities exist in your area”</li> <li>• Large chasing arrows recycle</li> </ul>
9	AM PM Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Please return to participating store for recycling”</li> <li>• Large chasing arrows recycle</li> <li>• “Recyclable”</li> </ul>
10	Baja Fish Taco Restaurant Plastic Bag	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “100% Recyclable”</li> <li>• “Return to a participating location for recycling”</li> <li>• Two large recycling symbols</li> </ul>
11	Best Buy Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle”</li> </ul>
12	Big Five	<ul style="list-style-type: none"> <li>• “100% recyclable”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
13	Big Lots Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle”</li> <li>• “Please return to participating store for recycling”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
14	BJs Restaurant Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “100% Recyclable”</li> <li>• “Please recycle this bag”</li> <li>• Large recycling symbol</li> </ul>
15	Buy Buy Baby Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Please recycle this bag”</li> <li>• “Recycle Plastic Bags” and circular symbol</li> </ul>
16	Cheesecake Factory Plastic Bag	<ul style="list-style-type: none"> <li>• “Recyclable”</li> <li>• “Please recycle bags in participating curbside recycling programs and stores”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
17	Chevron Plastic Shopping bag	<ul style="list-style-type: none"> <li>• “Removing plastic from landfills one bag at a time”</li> <li>• “Please recycle”</li> <li>• “Please recycle bags in participating curbside recycling programs and stores”</li> <li>• Three large chasing arrows recycle symbol</li> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Two large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “100% recyclable”</li> </ul>
18	Chick-fil-A Plastic Bag	<ul style="list-style-type: none"> <li>• “100% Recyclable”</li> <li>• Large recycle symbol</li> </ul>

<b>Ref #</b>	<b>Retailer/Product</b>	<b>Incorrect Label Requiring Enforcement and Elimination</b>
19	Circle K Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle”</li> <li>• Large chasing arrows recycle symbol</li> <li>• “Recyclable Bag Design”</li> </ul>
20	Clorox Plastic Film Wrap	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
21	Coca-Cola Dasani Plastic Wrap	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
22	CVS Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• Please recycle this bag in participating stores</li> <li>• Large chasing arrows recycle symbol</li> </ul>
23	Del Taco Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “100% Recyclable”</li> <li>• “Return to a participating location for recycling”</li> </ul>
24	Denault’s Ace Hardware Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “An Environmentally Friendly Product”</li> <li>• “This bag contains biodegradable materials and is formulated to be completely degradable, making it more environmentally friendly”</li> <li>• “Please Return To a Participating Store for Recycling”</li> <li>• Two large chasing arrows recycle symbols</li> </ul>
25	Dollar Tree Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “100% Recyclable”</li> <li>• “Please Return To a Participating Store for Recycling”</li> </ul>
26	El Pollo Loco Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle Plastic Bags” and circular symbol</li> </ul>
27	Gelson’s Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• Chasing arrows recycling symbol:</li> <li>• “Please return this bag to a participating store for recycling”</li> </ul>
28	General Mills Nature Valley Granola Bars Plastic Wrapper	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• Store Drop-Off”</li> <li>• “Recyclable Wrappers”</li> </ul>
29	Georgia Pacific Dixie Cups Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
30	Georgia Pacific Quilted Northern Toilet Paper Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
31	Harbor Freight Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• Please return to participating store for recycling”</li> <li>• Large chasing arrows recycle symbol</li> <li>• “Recyclable”</li> </ul>
32	Hobby Lobby Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Please recycle this bag at a participating store”</li> </ul>
33	Home Depot Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
34	Home Depot Plastic Drop Cloth	<ul style="list-style-type: none"> <li>• “Recycle”</li> <li>• Large chasing arrows recycle symbol</li> </ul>

<b>Ref #</b>	<b>Retailer/Product</b>	<b>Incorrect Label Requiring Enforcement and Elimination</b>
35	Home Goods Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle Plastic Bags” and circular symbol</li> <li>• Please recycle</li> </ul>
36	JOANN Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle Plastic Bags” and circular symbol</li> <li>• “Please recycle</li> </ul>
37	Kellogg Bear Naked Granola Plastic Pouch	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff</li> <li>• “Recycle In Store”</li> </ul>
38	KFC Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
39	Keurig Dr. Pepper Snapple Plastic Film Wrap	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff</li> </ul>
40	Kimberly Clark Scott Paper Towels Plastic Film Wrap	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff</li> </ul>
41	Kroger Hamburger Bun Plastic Bag	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff</li> </ul>
42	Kohls Ecommerce Garment Shipping Pouch	<ul style="list-style-type: none"> <li>• “This bag is recyclable”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
43	Macys Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Please recycle this bag”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
44	Marshalls Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle Plastic Bags” and circular symbol</li> <li>• Large chasing arrows recycle symbol</li> </ul>
45	Michaels Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle Plastic Bags” and circular symbol</li> </ul>
46	Nestle Purina Dog Food Plastic Wrapper	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff</li> </ul>
47	Pavilions Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “Please return to a participating store for recycling”</li> </ul>
48	Pepsico SodaStream Plastic Shipping Bag	<ul style="list-style-type: none"> <li>• “Don’t call me trash”</li> <li>• “I’m 100% Recyclable”</li> <li>• Numerous large recycle symbol</li> <li>• Recycle bin graphic</li> </ul>
49	PetSmart Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle Plastic Bags” and circular symbol</li> <li>• Large chasing arrows recycle symbol</li> </ul>
50	Pizza Hut Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
51	Procter & Gamble: Bounty Paper Towel Film Wrap	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• 2 Large chasing arrows recycle symbols and “Store Dropoff”</li> </ul>

<b>Ref #</b>	<b>Retailer/Product</b>	<b>Incorrect Label Requiring Enforcement and Elimination</b>
52	Procter & Gamble Charmin Toilet Paper Film Wrap	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• 2 Large chasing arrows recycle symbols and “Store Dropoff”</li> </ul>
53	Raising Canes Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle”</li> <li>• Large recycle symbol</li> </ul>
54	Ralphs Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• Recycle”</li> <li>• “Please return it to a participating store for recycling”</li> </ul>
55	Reynolds Hefty Foam Plates Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “Rinse Before Recycling”</li> <li>• Large chasing arrows recycle symbol and “Check Locally”</li> </ul>
56	Rite Aid Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Please return to participating store for recycling”</li> <li>• “This bag is 100% recyclable”</li> </ul>
57	Save Mart Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Please return to participating store for recycling”</li> <li>• Large chasing arrows recycle symbol and “Check Locally”</li> </ul>
58	Save.com Advertising Flyer Plastic Wrapper	<ul style="list-style-type: none"> <li>• “See how to recycle this bag at <a href="http://plasticfilmrecycling.org">plasticfilmrecycling.org</a>”</li> <li>• Large recycle symbol</li> </ul>
59	SC Johnson Ziploc Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
60	Sealed Air Plastic Ecommerce Pouch	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “Recycle with Ease”</li> </ul>
61	Silver Palace Restaurant Plastic Bag	<ul style="list-style-type: none"> <li>• “Please return to participating store for recycling”</li> <li>• Large chasing arrows recycle symbol</li> <li>• “Recyclable”</li> </ul>
62	Smart & Final Plastic Shopping Bags	<ul style="list-style-type: none"> <li>• “Please return to participating store for recycling”</li> <li>• Large chasing arrows recycle symbol</li> </ul>
63	Sprouts Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “Recycle”</li> <li>• Chasing arrows recycling symbol</li> <li>• “Please return this bag to a participating store for recycling”</li> <li>• “Recyclable”</li> </ul>
64	Staples Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Please return to participating store for recycling”</li> </ul>
65	Stater Brothers Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• Large chasing arrows symbol</li> <li>• “Please recycle this bag”</li> <li>• “Please recycle bags in participating curbside recycling programs and stores”</li> </ul>
66	Storo pack Plastic Ecommerce Bag	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “Recycle with Ease”</li> </ul>



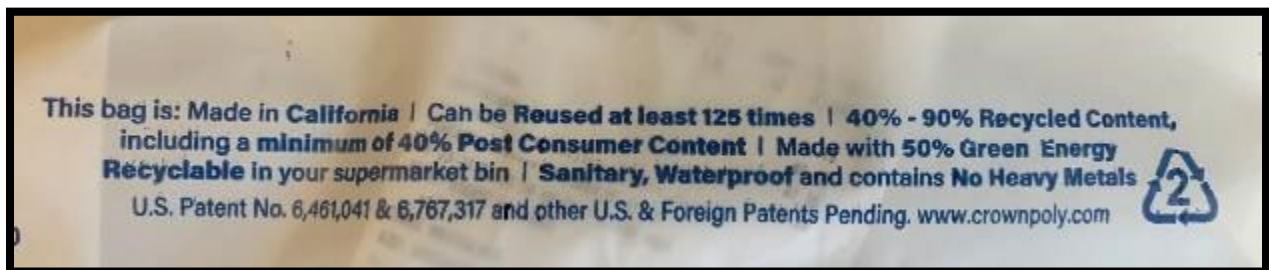
Ref #	Retailer/Product	Incorrect Label Requiring Enforcement and Elimination
67	Target Store Brand Cups Plastic Bag	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
68	Target Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “This is recyclable, so please return it to a participating store for recycling”</li> </ul>
69	TJ Maxx Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle Plastic Bags” and circular symbol</li> </ul>
70	Trusted Media Brands: Taste of Home Magazine Plastic Wrapper	<ul style="list-style-type: none"> <li>• “This poly-bag is recyclable where #4 is accepted. Please go to <a href="http://plasticfilmrecycling.org">plasticfilmrecycling.org</a> for collection locations near you.:</li> <li>• Large chasing arrows recycle symbol</li> </ul>
71	ULTA Beauty Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recyclable”</li> </ul>
72	Unilever Seventh Generation Plastic Film Wrap	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
73	Walgreens Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• Large chasing arrows symbol</li> <li>• “Thank you for recycling this bag”</li> <li>• “Recycle”</li> </ul>
74	Walmart Plastic Shopping Bags	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
75	Walmart Plastic Food Bags	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
76	Walmart Plastic Bubble Wrap	<ul style="list-style-type: none"> <li>• “100% Recyclable”</li> </ul>
77	Walmart Plastic Cup Bag	<ul style="list-style-type: none"> <li>• Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> </ul>
78	Wendy’s Plastic Bag	<ul style="list-style-type: none"> <li>• “Recycle if Clean &amp; Dry”</li> <li>• Large chasing arrows recycle symbol and “Store Dropoff”</li> <li>• “Return to a participating location for recycling”</li> <li>• “100% Recyclable”</li> <li>• Chasing arrows recycling symbol</li> </ul>
79	WinCo Foods Plastic Shopping Bag	<ul style="list-style-type: none"> <li>• “Recycle”</li> <li>• Large chasing arrows recycle symbol</li> <li>• “Recyclable Bag Design”</li> </ul>
80	WinCo Foods Plastic Produce Bag	<ul style="list-style-type: none"> <li>• Please return this bag to a participating store for recycling”</li> <li>• Large chasing arrows recycle symbol</li> </ul>

### 1. 99cents Only Store Plastic Shopping Bag

Purchased by a consumer in 2021 at a 99cents Only Store in Whittier, CA.  
Address: [15345 Whittier Blvd, Whittier, CA 90603](https://www.google.com/maps/place/15345+Whittier+Blvd,+Whittier,+CA+90603)

There are two elements that require correction:

- 1) "Recyclable in your supermarket bin": Remove
- 2) Chasing arrows recycling symbol: Remove or make into a solid triangle.



## 2. Air Space Plastic ECommerce Bags

Received by a consumer in California in 2021.

There are two elements that require correction:

- 1) "Deflate Before Recycling": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



### 3. Albertsons Plastic Shopping Bag

Purchased by a consumer in 2021 at Albertsons in Laguna Niguel, CA.  
Address: [29941 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.albertsons.com/locations/29941)

There are six elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) "Recycle": Remove
- 4) Chasing arrows recycling symbol: Remove or make into a solid triangle.
- 5) "Please return this bag to a participating store for recycling": Remove
- 6) "Recyclable": Remove



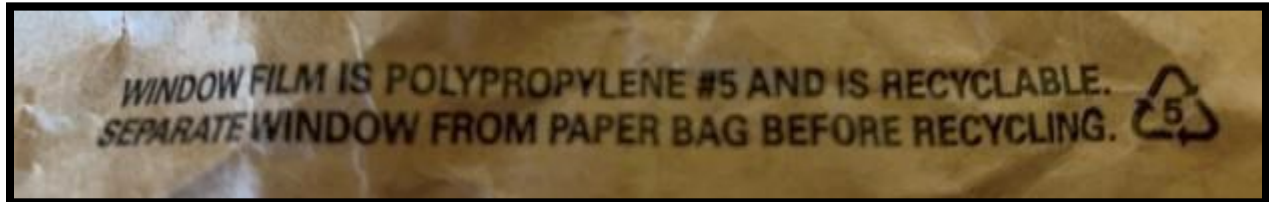
#### 4. Albertsons Pavilions Bread Plastic Wrapper

Purchased by a consumer in 2021 at Pavilions in Laguna Niguel, CA.  
Address: [27320 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.albertsons.com/locations/27320-alicia-pkwy-laguna-niguel-ca-92677)

There are two elements that require correction:

- “Window film is polypropylene #5 and is recyclable”: Remove
- Recycle symbol: Remove

Note that the paper is a coated material that is also not recyclable.



## 5. Aldi Plastic Shopping Bag

Purchased at Aldi store in Laguna Woods, California in 2021.

Address: [24270 El Toro Rd, Laguna Woods, CA 92637](https://www.aldi.us/locations/24270-el-toro-rd-laguna-woods-ca-92637)

There are three elements that require correction:

- 1) "100% Recyclable": Remove
  - 2) "Can be recycled at a participating store" or "Please recycle this bag in participating stores": Remove
  - 3) Large chasing arrows recycle symbol: Remove or change to solid triangle
- Bag is made in Germany.



## 6. Aldi Tortilla Plastic Bag

Purchased at Aldi store in Laguna Woods, California in 2021.

Address: [24270 El Toro Rd, Laguna Woods, CA 92637](https://www.aldi.us/locations/24270-el-toro-rd-laguna-woods-ca-92637)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove



## 7. Amazon Shipping Pouch

Received by a consumer in California in 2021.

There are two elements that require correction:

- 1) "Remove Paper Label Before Recycling": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove





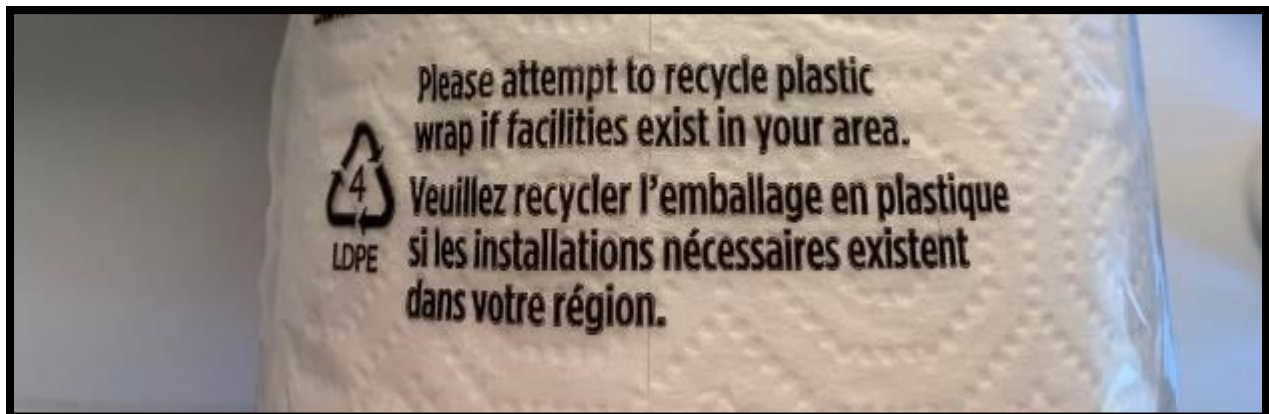
## 8. Amazon Whole Foods Paper Towel Plastic Wrap

Purchased at Whole Foods store in Laguna Niguel, California in 2021.

Address: [23932 Aliso Creek Rd, Laguna Niguel, CA 92677](https://www.wholefoodsmarket.com/locations/23932-aliso-creek-rd-laguna-niguel-ca-92677)

There are two elements that require correction:

- 1) "Please attempt to recycle plastic wrap if facilities exist in your area": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle



## 9. AMPM Plastic Bag

Purchased by a consumer at an AM PM store in 2021 in Whittier, CA.  
Address: [15306 East Whittier Blvd, Whittier, CA 90603](https://www.google.com/maps/place/15306+East+Whittier+Blvd,+Whittier,+CA+90603)

There are three elements that require correction:

- 1) "Please return to participating store for recycling": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle
- 3) "Recyclable": Remove



## 10. Baja Fish Tacos Restaurant Plastic Bag

Received at Baja Fish Tacos Restaurant in Laguna Niguel, California in 2021.  
Address: [30242 Crown Valley Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/30242+Crown+Valley+Pkwy,+Laguna+Niguel,+CA+92677)

There are five elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) "100% recyclable": Remove
- 4) "Please recycle this bag": Remove
- 5) Large chasing arrows recycle symbol: Remove or change to solid triangle





## 11. Best Buy Plastic Shopping Bag

Received at Best Buy store in Mission Viejo, California in 2021.

Address: [25422 El Paseo, Mission Viejo, CA 92691](https://www.bestbuy.com/locations/25422-el-paseo-mission-viejo-ca-92691)

There is one element that requires correction:

- 1) "Recycle": Remove



## 12. Big Five Plastic Shopping Bag

Seen by a consumer at an AM PM store in 2021 in Sacramento, CA.

Address: [3420 Arden Way, Sacramento, CA 95825](https://www.google.com/maps/place/3420+Arden+Way,+Sacramento,+CA+95825)

There are two elements that require correction:

- 1) "100% recyclable": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle



### 13. Big Lots Plastic Shopping Bag

Purchased at Big Lots store in Laguna Hills, California in 2021.

Address: [23641 Moulton Pkwy, Laguna Hills, CA 92653](https://www.biglots.com/locations/23641-Moulton-Pkwy-Laguna-Hills-CA-92653)

There are three elements that require correction:

- 1) "Recycle": Remove
- 2) "Please Return To a Participating Store for Recycling": Remove
- 3) Large chasing arrows recycle symbol: Remove or change to solid triangle



## 14. BJs Restaurant Plastic Bag

Received at BJs Restaurant in City of Industry, California in 2021.  
Address: [17615 Castleton St, City of Industry, CA 91748](https://www.bjsrestaurants.com/locations/city-of-industry)

There are five elements that require correction:

- 6) "Recycle if Clean & Dry": Remove
- 7) Two large chasing arrows recycle symbol and "Store Dropoff": Remove
- 8) "100% recyclable": Remove
- 9) "Please recycle this bag": Remove
- 10) Large chasing arrows recycle symbol: Remove or change to solid triangle





## 15. Buy Buy Baby Plastic Shopping Bag

Received at Buy Buy Baby store in Mission Viejo, California in 2021.  
Address: [25322 El Paseo, Mission Viejo, CA 92691](https://www.google.com/maps/place/25322+El+Paseo,+Mission+Viejo,+CA+92691)

There are three elements that require correction:

- 1) "Recycle Plastic Bags" and circular symbol: Remove
- 2) "Please reuse or recycle this bag" (used twice): Remove



## 16. Cheesecake Factory Plastic Bag

Received at Cheesecake Factory store in Mission Viejo, California in 2021.

Address: [42 The Shops At Mission Viejo, Mission Viejo, CA 92691](https://www.cheesecakefactory.com/locations/mission-viejo)

There are three elements that require correction:

- 1) "Recyclable": Remove
- 2) "Please recycle bags in participating curbside recycling programs and stores": Remove
- 3) Large chasing arrows recycle symbol: Remove or change to solid triangle



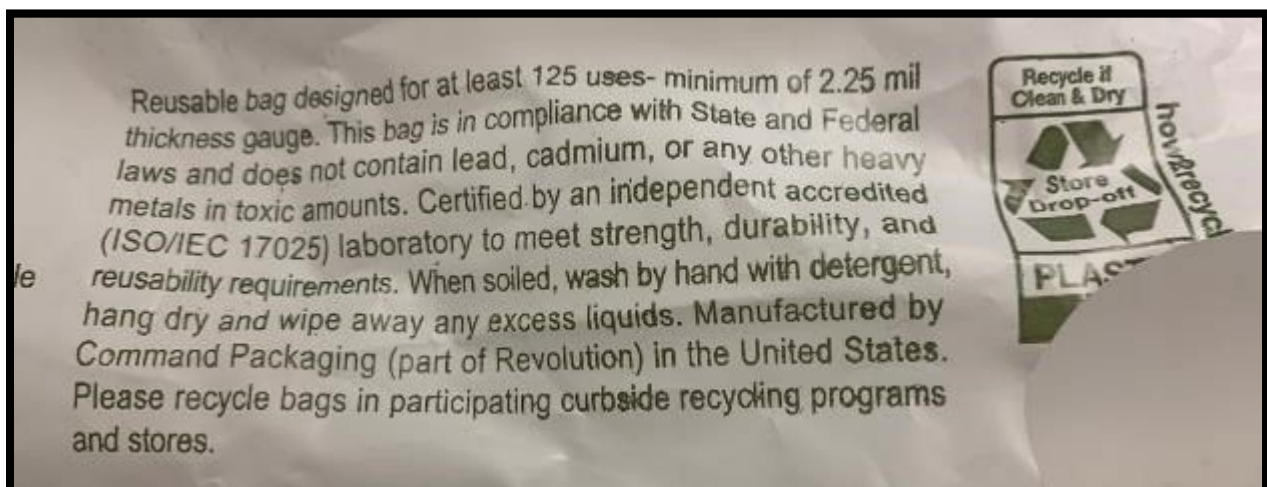
## 17. Chevron Plastic Shopping Bag

Purchased at Chevron Station in Laguna Beach, California in 2021.

Address: [604 S Coast Hwy, Laguna Beach, CA 92651](https://www.google.com/maps/place/604+S+Coast+Hwy,+Laguna+Beach,+CA+92651)

There are seven elements that require correction:

- 1) "Removing plastic from landfills one bag at a time": Remove
- 2) "Please recycle": Remove
- 3) "Please recycle bags in participating curbside recycling programs and stores": Remove
- 4) Three large chasing arrows recycle symbol: Remove or change to solid triangle
- 5) "Recycle if Clean & Dry": Remove
- 6) Two large chasing arrows recycle symbol and "Store Dropoff": Remove
- 7) "100% recyclable": Remove



## 18. Chick-fil-A Plastic Bag

Received at Chick-fil-A store in Whittier, California in 2021.

Address: [15600 Whittier Blvd, Whittier, CA 90603](https://www.google.com/maps/place/15600+Whittier+Bvd,+Whittier,+CA+90603)

There are two elements that require correction:

- 1) "100% Recyclable": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle

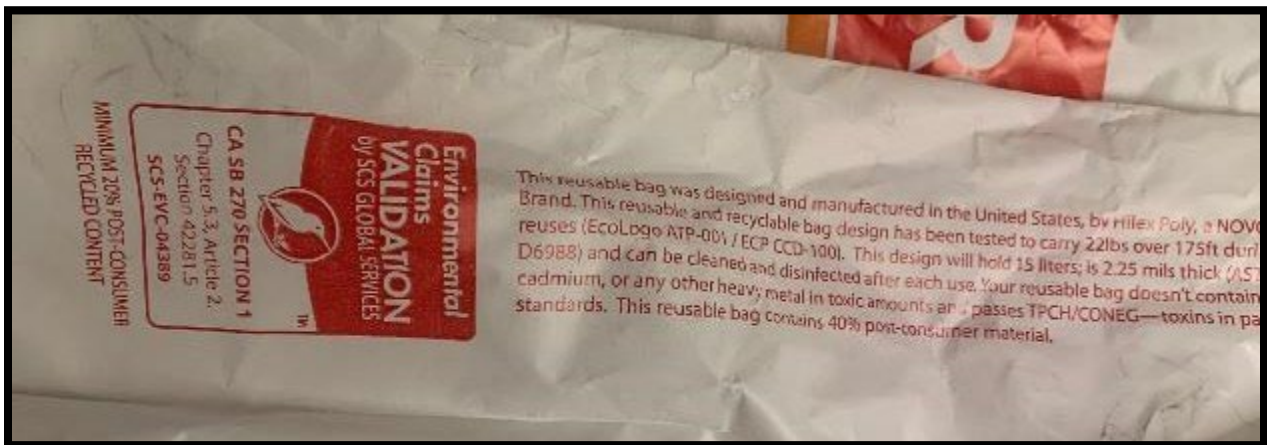
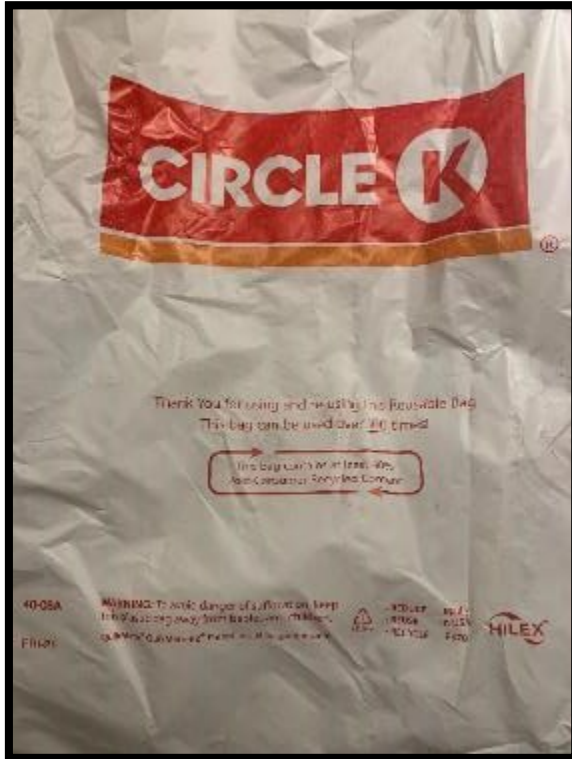


## 19. Circle K Plastic Shopping Bag

Purchased by a consumer at a Circle K store in 2021 in Laguna Beach, CA.  
Address: [885 Glenneyre St, Laguna Beach, CA 92651](https://www.google.com/maps/place/885+Glenneyre+St,+Laguna+Beach,+CA+92651)

There are three elements that require correction:

- 1) "Recycle": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle
- 3) "Recyclable Bag Design": Remove



## 20. Clorox Plastic Film Wrap

Purchased by a consumer in 2021 at Costco in Laguna Niguel, CA.  
Address: [27220 Heather Ridge, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27220+Heather+Ridge,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove



## 21. Coca-Cola Plastic Film Wrap

Seen by a consumer in 2021 at Target in San Clemente, CA.

Address: Address: [990 Avenida Vista Hermosa, San Clemente, CA 92673](#)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove



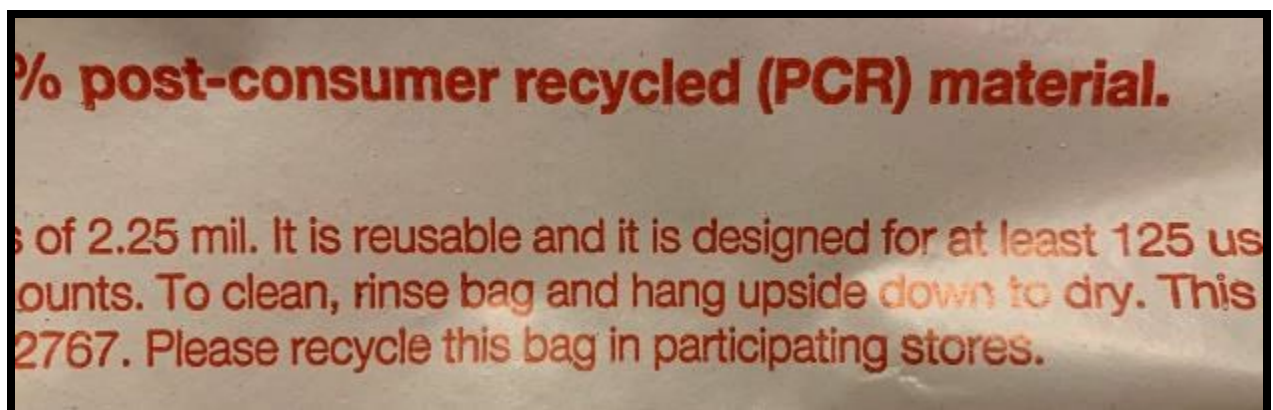
## 22. CVS Plastic Shopping Bag

Purchased at CVS store in Laguna Niguel, California in 2021.

Address: [27251 La Paz Rd, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27251+La+Paz+Rd,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Recycle": Remove
  - 2) Chasing arrows recycling symbol: Remove or make into a solid triangle
- Bag is made in Germany.





## 23. Del Taco Plastic Bag

Received by a consumer in 2021 at Del Taco in Dana Point, CA.  
Address: [34289 Pacific Coast Hwy, Dana Point, CA 92629](https://www.google.com/maps/place/34289+Pacific+Coast+Hwy,+Dana+Point,+CA+92629)

There are four elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) "100% recyclable": Remove
- 4) "Return to a participating location for recycling": Remove



## 24. Denault's Ace Hardware Plastic Shopping Bag

Received by a consumer in 2021 at Denault's Ace Hardware in Laguna Niguel, CA.  
Address: [34289 Pacific Coast Hwy, Dana Point, CA 92629](#)

There are four elements that require correction:

- 1) "An Environmentally Friendly Product": Remove
- 2) "This bag contains biodegradable materials and is formulated to be completely degradable, making it more environmentally friendly": Remove
- 3) "Please Return To a Participating Store for Recycling": Remove
- 4) Two large chasing arrows recycle symbols: Remove



## 25. Dollar Tree Plastic Shopping Bag

Purchased at Dollar Tree store in Laguna Woods, California in 2021.

Address: [24280 El Toro Rd, Laguna Woods, CA 92637](https://www.dollartree.com/locations/24280-el-toro-rd-laguna-woods-ca-92637)

There are three elements that require correction:

- 1) "100% Recyclable": Remove
- 2) "Please Return To a Participating Store for Recycling": Remove



## 26. El Pollo Loco Bag

Received at El Pollo Loco store in Laguna Niguel, California in 2021.  
Address: [28261 Crown Valley Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/28261+Crown+Valley+Pkwy,+Laguna+Niguel,+CA+92677)

There is one element that requires correction:

- 1) "Recycle Plastic Bags" and circular symbol: Remove



## 27. Gelson's Plastic Shopping Bag

Received (no charge) at Gelson's store in Dana Point, California in 2021.

Address: [24 Monarch Bay Plaza, Dana Point, CA 92629](#)

There are two elements that require correction:

- 1) "Please Return To a Participating Store for Recycling": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle



## 28. General Mills Nature Valley Granola Bar Wrapper

Purchased by a consumer in 2021 at Albertsons in Laguna Niguel, CA.  
Address: [29941 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.albertsons.com/locations/92941-alicia-pkwy-laguna-niguel-ca-92677)

There are multiple elements that require correction:

### Wrappers:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove

### Box

- 1) "Store Drop-Off": Remove
- 2) "Recyclable Wrappers": Remove



## 29. Georgia Pacific Dixie Cups Plastic Bag

Purchased by a consumer in 2021 at Albertsons in Laguna Niguel, CA.  
Address: [29941 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.albertsons.com/locations/ca/laguna-niguel)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



## 30. Georgia Pacific Quilted Northern Toilet Paper Plastic Bag

Purchased by a consumer in 2021 at Albertsons in Laguna Niguel, CA.  
Address: [29941 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.albertsons.com/locations/ca/laguna-niguel)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



### 31. Harbor Freight Plastic Shopping Bag

Received by a consumer at a Harbor Freight store in 2021 in Whittier, CA.  
Address: [15214 East Whittier Blvd, Whittier, CA 90603](https://www.harborfreight.com/locations/whittier-ca)

There are three elements that require correction:

- 1) "Please return to participating store for recycling": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle
- 3) "Recyclable": Remove





### 32. Hobby Lobby Plastic Shopping Bag

Received by a consumer in 2021 at Albertsons in Laguna Niguel, CA.  
Address: [27200 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.albertsons.com/locations/27200-Alicia-Pkwy-Laguna-Niguel-CA-92677)

There is one element that requires correction:

- 1) "Please return to a participating store": Remove

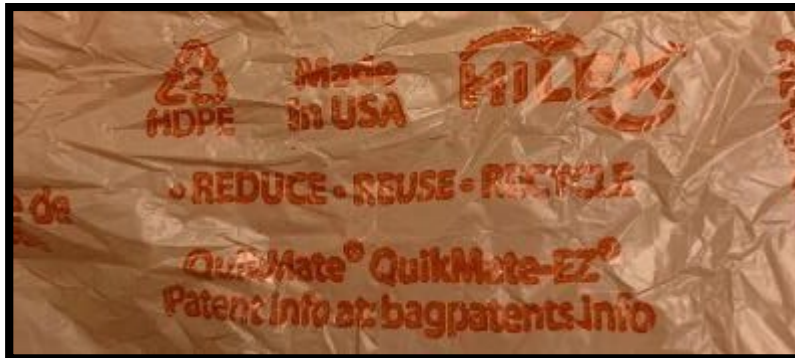


### 33. Home Depot Plastic Shopping Bag

Received by a consumer in 2021 at Home Depot in Laguna Niguel, CA.  
Address: [27401 La Paz Rd, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27401+La+Paz+Rd,+Laguna+Niguel,+CA+92677)

There is one element that requires correction:

- 1) "Recycle": Remove
- 2) Large chasing arrows recycle symbol: Remove or make into solid triangle



### 34. Home Depot Plastic Drop Cloth

Purchased by a consumer in 2021 at Home Depot in Laguna Niguel, CA.  
Address: [27401 La Paz Rd, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27401+La+Paz+Rd,+Laguna+Niguel,+CA+92677)

There is one element that require correction:

- 1) "Recycle": Remove

2) Large chasing arrows recycle symbol: Remove



### 35. Home Goods Plastic Shopping Bag

Received at Home Goods store in Ladera Ranch, California in 2021.

Address: [27482 Antonio Pkwy, Ladera Ranch, CA 92694](https://www.google.com/maps/place/27482+Antonio+Pkwy,+Ladera+Ranch,+CA+92694)

There are two elements that require correction:

- 1) "Recycle Plastic Bags" and circular symbol: Remove
- 2) "Please recycle this bag": Remove



### 36. JOANN Plastic Shopping Bag

Received at JOANN store in Orange, California in 2021.  
Address: [1411 N Tustin St, Orange, CA 92867](https://www.joann.com/locations/orange-ca)

There are two elements that require correction:

- 1) "Recycle Plastic Bags" and circular symbol: Remove
- 2) "Please recycle": Remove



### 37. Kellogg Naked Bear Granola Pouch

Purchased by a consumer in 2021 at Walmart in Laguna Niguel, CA.  
Address: [27470 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.walmart.com/store/27470-laguna-niguel-ca)

There are three elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) "Recycle In Store": Remove



### 38. Keurig Dr. Pepper Snapple Plastic Film Wrap

Purchased by a consumer in 2021 at Smart & Final in Laguna Niguel, CA.  
Address: [30252 Crown Valley Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/30252+Crown+Valley+Pkwy,+Laguna+Niguel,+CA+92677)

There are three elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove



### 39. Kimberly Clark Scott Paper Towels Plastic Film

Purchased at CVS store in Laguna Niguel, California in 2021.

Address: [27251 La Paz Rd, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27251+La+Paz+Rd,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove





## 40. KFC Plastic Bag

Received at KFC store in Laguna Niguel, California in 2021.  
Address: [30071 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/30071+Alicia+Pkwy,+Laguna+Niguel,+CA+92677)

There are two elements that requires correction:

- 1) "Recycle": Remove
- 2) Large recycle symbol: Remove or use solid triangle



## 41. Kohls Ecommerce Garment Shipping Pouch

Received by a consumer California in 2021.

There are two elements that require correction:

- 1) "This bag is recyclable": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle



## 42. Kroger Hamburger Bun Plastic Bag

Purchased at Ralphs store in Dana Point, California in 2021.

Address: [24871 Del Prado Ave, Dana Point, CA 92629](https://www.google.com/maps/place/24871+Del+Prado+Ave,+Dana+Point,+CA+92629)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



### 43. Macy's Plastic Shopping Bag

Received at Macy's store in Mission Viejo, California in 2021.

Address: [200 The Shops At Mission Viejo, Mission Viejo, CA 92691](https://www.macys.com/mission-viejo)

There are two elements that require correction:

- 1) "Please recycle this bag": Remove
- 2) Large chasing arrows recycle symbol: Remove



#### 44. Marshalls Plastic Shopping Bag

Received at Marshalls store in Laguna Niguel, California in 2021.

Address: [27080 Alicia Pkwy Ste A, Laguna Niguel, CA 92677](https://www.marshalls.com/locations/27080-Alicia-Pkwy-Ste-A-Laguna-Niguel-CA-92677)

There are two elements that require correction:

- 1) "Recycle Plastic Bags" and circular symbol: Remove
- 2) "Please recycle this bag": Remove



## 45. Michaels Plastic Shopping Bag

Received at Michaels store in Aliso Viejo, California in 2021.

Address: [26503 Aliso Creek Rd, Aliso Viejo, CA 92656](https://www.google.com/maps/place/26503+Aliso+Creek+Rd,+Aliso+Viejo,+CA+92656)

There is one element that requires correction:

- 1) "Recycle Plastic Bags" and circular symbol: Remove



## 46. Nestle Purina Dog Food Plastic Wrapper

Seen by a consumer in 2021 at Pavilions in Laguna Niguel, CA.

Address: [27320 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27320+Alicia+Pkwy,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove



## 47. Pavilions Plastic Shopping Bags

Purchased by a consumer in 2021 at Pavilions in Laguna Niguel, CA.  
Address: [27320 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.pavilions.com/locations/ca/92677)

There are three elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) "Please return to a participating store for recycling": Remove



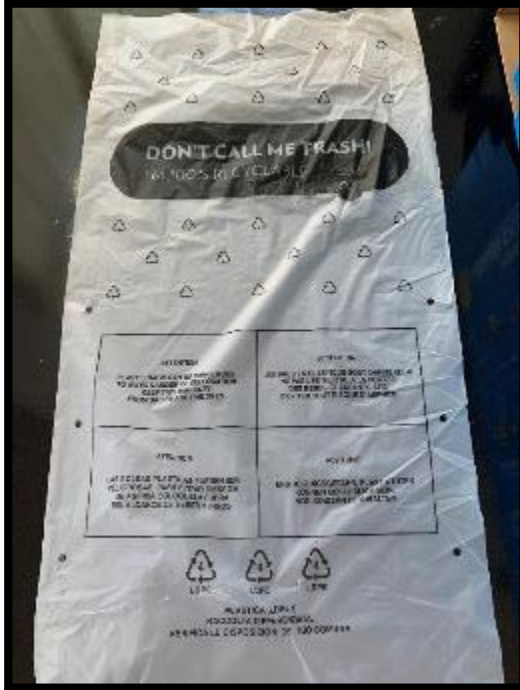


## 48. PepsiCo Sodastream Plastic Shipping Bag

Received by a consumer in California in 2021.

There are three elements that require correction:

- 1) "Don't call me trash": Remove
- 2) "I'm 100% Recyclable": Remove
- 3) Numerous large recycle symbol: Remove
- 4) Recycle bin graphic: Remove



## 49. PetSmart Shopping Bag

Received at PetSmart store in Aliso Viejo, California in 2021.

Address: [26761 Aliso Creek Rd, Aliso Viejo, CA 92656](https://www.google.com/maps/place/26761+Aliso+Creek+Rd,+Aliso+Viejo,+CA+92656)

There are two elements that require correction:

- 5) "Recycle Plastic Bags" and circular symbol: Remove
- 6) Large recycle symbol: Remove



## 50. Pizza Hut Shopping Bag

Received at Pizza Hut store in Foothill Ranch, California in 2021.  
Address: [26781 Portola Pkwy #4A, Foothill Ranch, CA 92610](https://www.google.com/maps/place/26781+Portola+Pkwy,+Foothill+Ranch,+CA+92610)

There are two elements that requires correction:

- 1) "Recycle": Remove
- 2) Large recycle symbol: Remove or use solid triangle



**51. Procter and Gamble: Bounty Paper Towel Film Wrap**

Purchased by a consumer in 2021 at Albertsons in Laguna Niguel, CA.  
Address: [29941 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/29941+Alicia+Pkwy,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove



**52. Procter and Gamble: Charmin Toilet Paper Film Wrap**

Purchased by a consumer in 2021 at Albertsons in Laguna Niguel, CA.  
Address: [29941 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/29941+Alicia+Pkwy,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Two large chasing arrows recycle symbol and "Store Dropoff": Remove



## 53. Raising Canes Bag

Received at Raising Canes store in Aliso Viejo, California in 2021.

Address: [26801 Aliso Creek Rd, Aliso Viejo, CA 92656](https://www.raisingcanes.com/locations/aliso-viejo)

There are two elements that requires correction:

- 1) "Recycle": Remove
- 2) Large recycle symbol: Remove or use solid triangle



## 54. Ralphs Shopping Bag

Received at Ralphs store in Dana Point, California in 2021.

Address: [24871 Del Prado Ave, Dana Point, CA 92629](https://www.ralphs.com/locations/dana-point)

There are two elements that requires correction:

- 1) "Recycle": Remove
- 2) "Please return it to a participating store for recycling": Remove



## 55. Reynolds Hefty Foam Plates Plastic Bags

Purchased by a consumer in 2021 at Walmart in Laguna Niguel, CA.  
Address: [27470 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27470+Alicia+Pkwy,+Laguna+Niguel,+CA+92677)

There are four elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) "Rinse Before Recycling": Remove
- 4) Large chasing arrows recycle symbol and "Check Locally": Remove



## 56. Rite Aid Plastic Shopping Bag

Purchased by a consumer in 2021 at Rite Aid in Laguna Niguel, CA.  
Address: [30222 Crown Valley Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/30222+Crown+Valley+Pkwy,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Please return to participating store for recycling": Remove
- 2) "This bag is 100% recyclable": Remove



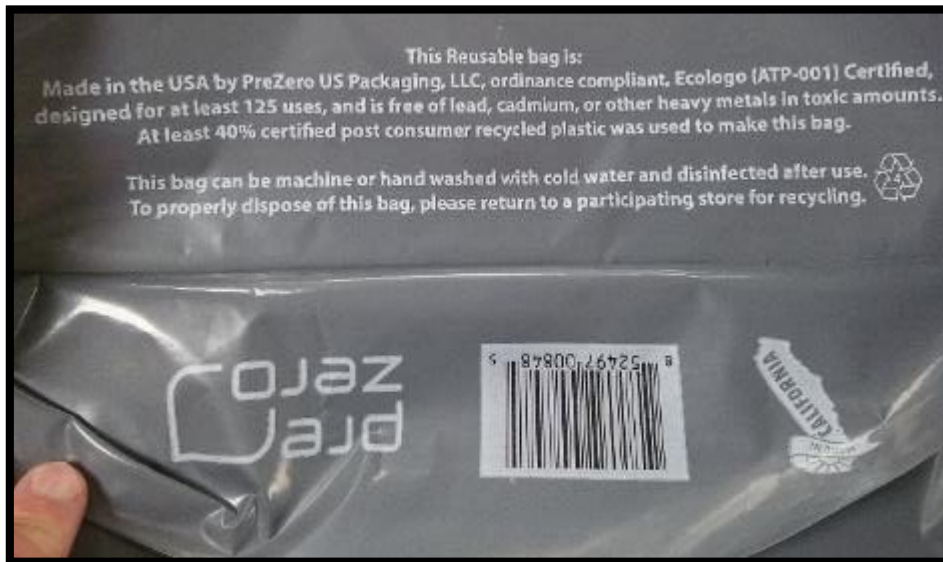


## 57. Save Mart Plastic Shopping Bag

Save Mart by a consumer in 2021 at a Save Mart in Fair Oaks, CA.  
Address: [2501 Fair Oaks Blvd, Sacramento, CA 95825](https://www.google.com/maps/place/2501+Fair+Oaks+Blvd,+Sacramento,+CA+95825)

There are two elements that require correction:

- 1) "Please return to participating store for recycling": Remove
- 2) Large chasing arrows recycle symbol and "Check Locally": Remove

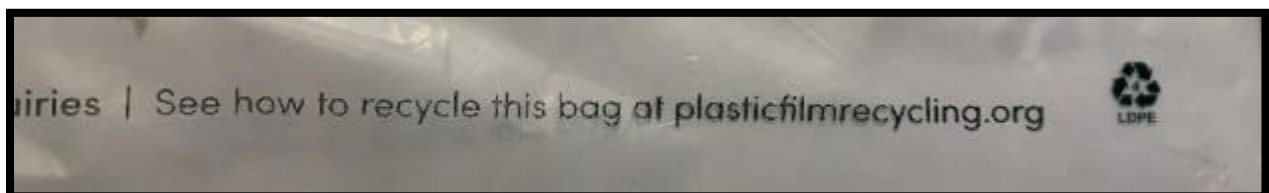


## 58. Save.com Advertising Flyer Plastic Wrapper

Received by a California consumer in 2021.

There are two elements that requires correction:

- 1) "See how to recycle this bag at plasticfilmrecycling.org": Remove
- 2) Large recycle symbol: Remove or use solid triangle

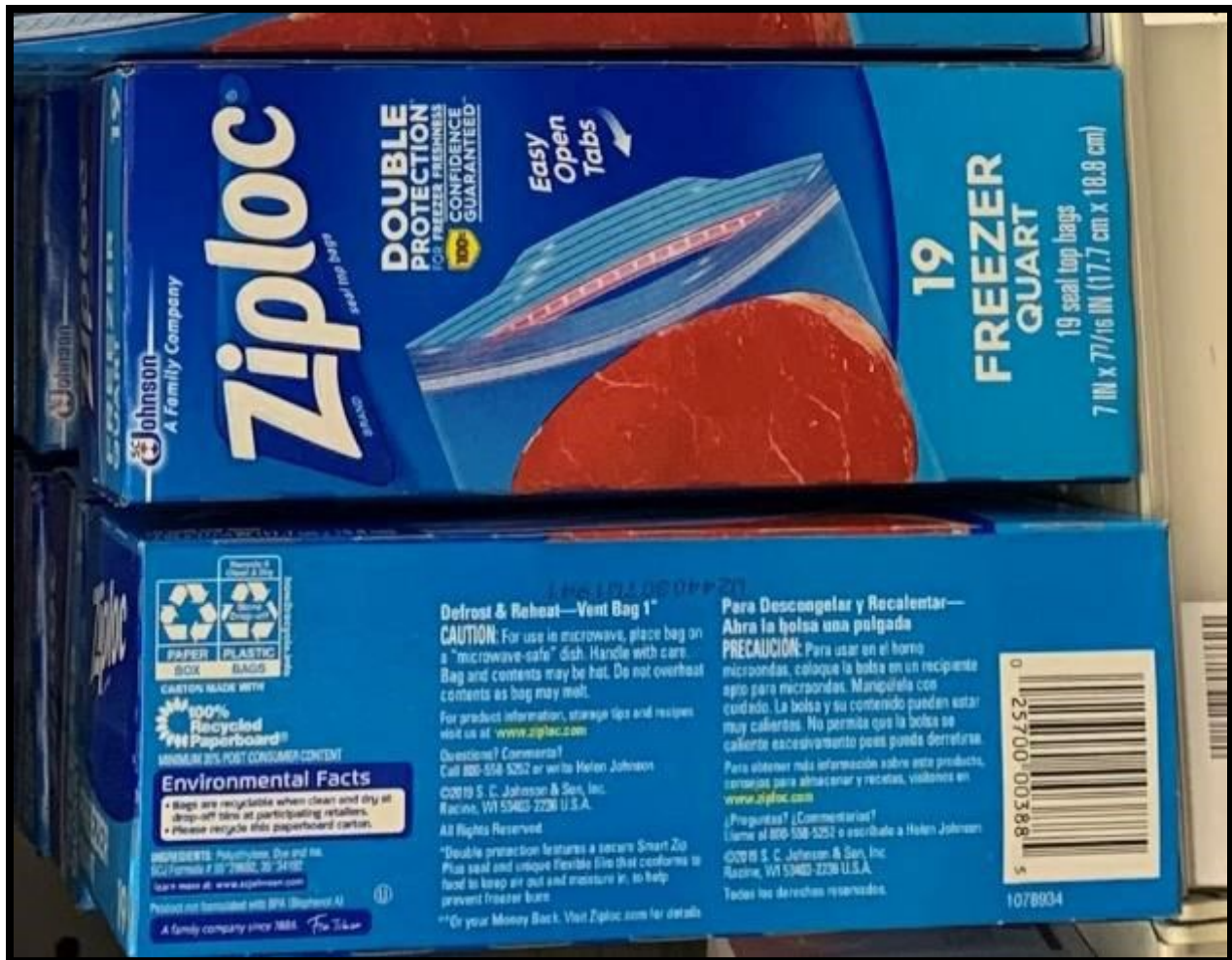


## 59. SC Johnson Ziploc Plastic Bags

Purchased by a consumer in 2021 at Albertsons in Laguna Niguel, CA.  
Address: [29941 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.albertsons.com/locations/29941-alicia-pkwy-laguna-niguel-ca-92677)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove

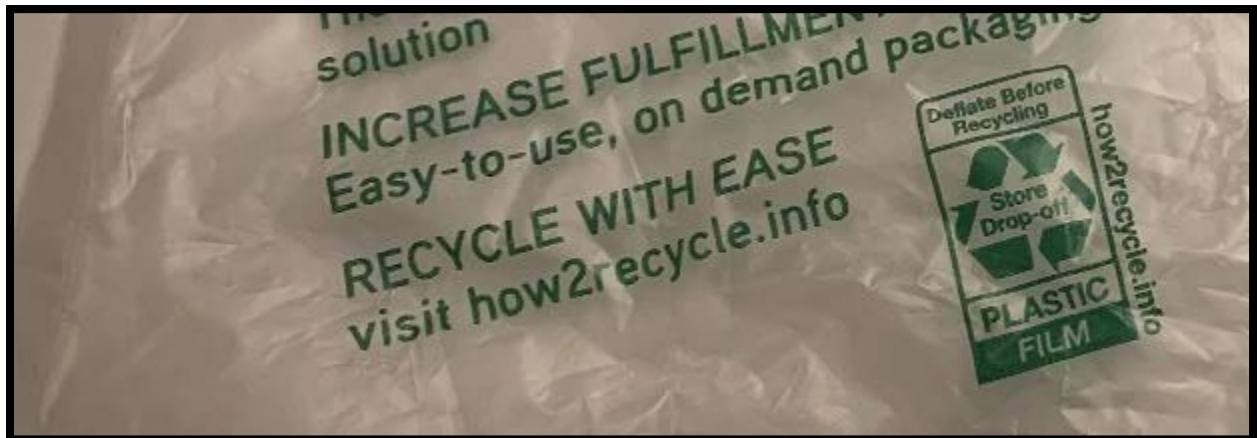


## 60. Sealed Air Plastic Air Pouch Bags

Received by a consumer in California in 2021.

There are two elements that require correction:

- 1) "Deflate Before Recycling": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) "Recycle with Ease": Remove



## 61. Silver Palace Restaurant Plastic Bag

Received by a consumer in 2021 in Whittier, CA.

Address: [15326 East Whittier Blvd, Whittier, CA 90603](https://www.google.com/maps/place/15326+East+Whittier+Blvd,+Whittier,+CA+90603)

There are three elements that require correction:

- 4) "Please return to participating store for recycling": Remove
- 5) Large chasing arrows recycle symbol: Remove or change to solid triangle
- 6) "Recyclable": Remove



## 62. Smart & Final Plastic Shopping Bag

Purchased by a consumer in 2021 at Smart & Final in Laguna Niguel, CA.  
Address: [30252 Crown Valley Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/30252+Crown+Valley+Pkwy,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Please return to participating store for recycling": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle



## 63. Sprouts Plastic Shopping Bag

Purchased by a consumer in 2021 at Albertsons in Laguna Niguel, CA.  
Address: [29941 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.albertsons.com/locations/ca/92677)

There are six elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) "Recycle": Remove
- 4) Chasing arrows recycling symbol: Remove or make into a solid triangle.
- 5) "Please return this bag to a participating store for recycling": Remove
- 6) "Recyclable": Remove



## 64. Staples Plastic Bag

Received at Staples store in Aliso Viejo, California in 2021.

Address: [26791 Aliso Creek Rd, Aliso Viejo, CA 92656](https://www.google.com/maps/place/26791+Aliso+Creek+Rd,+Aliso+Viejo,+CA+92656)

There is one element that requires correction:

- 1) "Please return to participating store for recycling": Remove





## 65. Stater Brothers Plastic Shopping Bags

Purchased by a consumer in 2021 at Stater Brothers in Aliso Viejo, CA.  
Address: [26892 La Paz Rd, Aliso Viejo, CA 92656](https://www.staterbrothers.com/locations/aliso-viejo)

There are five elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) Large chasing arrows symbol: Remove
- 4) "Please recycle this bag": Remove
- 5) "Please recycle bags in participating curbside recycling programs and stores": Remove



## 66. Target Store Brand Cup Plastic Bags

Purchased by a consumer in 2021 at Target in San Clemente, CA.  
Address: [990 Avenida Vista Hermosa, San Clemente, CA 92673](https://www.target.com/locations/san-clemente)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



## 67. Storopack Plastic ECommerce Bags

Received by a consumer in California in 2021.

There are two elements that require correction:

- 1) "Deflate Before Recycling": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



## 68. Target Plastic Shopping Bag

Purchased by a consumer in 2021 at Target in San Clemente, CA.

Address: [990 Avenida Vista Hermosa, San Clemente, CA 92673](#)

There are three elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
  - 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove
  - 3) "This is recyclable, so please return it to a participating store for recycling": Remove
- Bag made in France.



## 69. TJ Maxx Shopping Bag

Received at TJ Maxx store in Aliso Viejo, California in 2021.

Address: [26781 Aliso Creek Rd, Aliso Viejo, CA 92656](https://www.google.com/maps/place/26781+Aliso+Creek+Rd,+Aliso+Viejo,+CA+92656)

There is one element that requires correction:

- 1) "Recycle Plastic Bags" and circular symbol: Remove



## 70. Trusted Media Brands: Taste of Home Magazine Plastic Bag

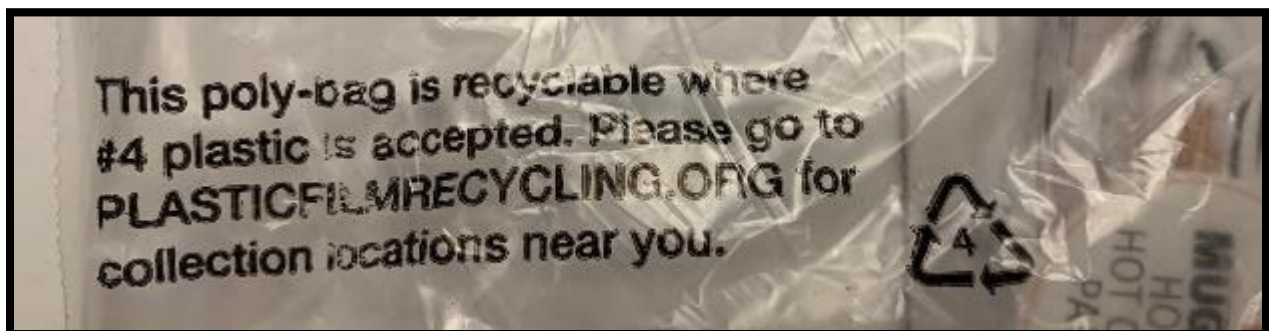
Received by a consumer in California in 2021.

There are two elements that require correction:

- 1) "This poly-bag is recyclable where #4 plastic is accepted. Please go to [plasticfilmrecycling.org](http://plasticfilmrecycling.org) for collection locations near you": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to a solid recycle



1



## 71. ULTA Beauty Shopping Bag

Received at ULTA Beauty store in Laguna Niguel, California in 2021.  
Address: [27080 Alicia Pkwy Ste B, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27080+Alicia+Pkwy+Ste+B,+Laguna+Niguel,+CA+92677)

There is one element that requires correction:

- 1) "Recyclable": Remove



## 72. Unilever Seventh Generation Plastic Film Wrap

Purchased by a consumer in 2021 at Rite Aid in Laguna Niguel, CA.  
Address: [30222 Crown Valley Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/30222+Crown+Valley+Pkwy,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



## 73. Walgreens Plastic Shopping Bags

Purchased by a consumer in 2021 at Walgreens in Laguna Niguel, CA.  
Address: [30192 Town Center Dr, Laguna Niguel, CA 92677](https://www.walgreens.com/locations/walgreens-laguna-niguel-ca)

There are five elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) Large chasing arrows symbol: Remove or make into solid triangle
- 4) "Thank you for recycling this bag": Remove
- 5) "Recycle": Remove





## 74. Walmart Plastic Shopping Bags

Purchased by a consumer in 2021 at Walmart in Laguna Niguel, CA.  
Address: [27470 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27470+Alicia+Pkwy,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



## 75. Walmart Store Brand Plastic Food Bags

Purchased by a consumer in 2021 at Walmart in Laguna Niguel, CA.  
Address: [27470 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.walmart.com/store/27470-laguna-niguel-ca)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



## 76. Walmart Store Brand Plastic Bubble Wrap

Purchased by a consumer in 2021 at Walmart in Laguna Niguel, CA.  
Address: [27470 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.walmart.com/store/27470-laguna-niguel-ca)

There are two elements that require correction:

- 1) "100% Recyclable": Remove
- 2) Large chasing arrows recycle symbol: Remove



## 77. Walmart Store Brand Plastic Cup Bags

Purchased by a consumer in 2021 at Walmart in Laguna Niguel, CA.  
Address: [27470 Alicia Pkwy, Laguna Niguel, CA 92677](https://www.google.com/maps/place/27470+Alicia+Pkwy,+Laguna+Niguel,+CA+92677)

There are two elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove



## 78. Wendy's Plastic Bag

Received by a consumer in 2021 at Wendy's in Aliso Viejo, CA.

Address: [27002 La Paz Rd, Aliso Viejo, CA 92656](https://www.google.com/maps/place/27002+La+Paz+Rd,+Aliso+Viejo,+CA+92656)

There are five elements that require correction:

- 1) "Recycle if Clean & Dry": Remove
- 2) Large chasing arrows recycle symbol and "Store Dropoff": Remove
- 3) "Return to a participating location for recycling": Remove
- 4) "100% Recyclable": Remove
- 5) Chasing arrows recycling symbol: Remove or make into a solid triangle.



## 79. WinCo Foods Plastic Shopping Bag

Seen by a consumer at a WinCo Foods store in 2021 in Sacramento, CA.  
Address: [2300 Watt Ave #133, Sacramento, CA 95825](https://www.wincofoods.com/locations/sacramento)

There are three elements that require correction:

- 1) "Recycle": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle
- 3) "Recyclable Bag Design": Remove



## 80. WinCo Foods Plastic Shopping Bag

Seen by a consumer at a WinCo Foods store in 2021 in Sacramento, CA.  
Address: [2300 Watt Ave #133, Sacramento, CA 95825](https://www.wincofoods.com/locations/2300-Watt-Ave-133-Sacramento-CA-95825)

There are three elements that require correction:

- 1) "Please return this bag to a participating store for recycling": Remove
- 2) Large chasing arrows recycle symbol: Remove or change to solid triangle



# Policy 20-18: Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling

**Committee:** Recycling

**Primary Authors:** Jan Dell and Jeff Donlevy

**Adopted:** December 18, 2020

**Background:** Flexible plastic bag, film, wrap and pouches are a top form of contamination in curbside recycling bins. The flexible plastic materials are harming curbside recycling systems because the materials have no market reclaim value, clog machinery in material recovery facilities (MRFs) and other plastic waste and fiber processors. The plastic bags and film contaminate paper and cardboard bales and lower the quality and material value of the paper bales. Many flexible plastic bags, films, wraps and pouches have a recycle symbol which causes consumer confusion and contributes to contamination.

According to The Recycling Partnership (TRP)<sup>70</sup>, more than half of Californians think plastic bags are accepted in their curbside recycling program, regardless of whether plastic bags are actually accepted by their program. TRP found that this behavior is driven by the misunderstanding that the chasing arrows recycle symbol means the item is recyclable curbside and the recycling system will fix mistakes that the residents make.

**Since consumers equate the “recycle” word and symbol with what is accepted in curbside recycling bins, the “recycle” word and symbol must be reserved for materials which are accepted in curbside bins and do not cause contamination.**

**Purpose(s):** The purpose of this policy recommendation is to end consumer confusion that plastic bags, wraps, films are recyclable through curbside bins by prohibiting the use of the recycle symbol or word on the product.

There are wide-ranging benefits of this policy recommendation: reduced contamination, reduced worker hazards and operating costs for material recovery facilities (MRFs), increased paper and cardboard bale quality and value for MRFs, and reduction of waste to landfills. There are no costs to consumers, MRFs, or city or state governments. Companies' ability to sell flexible plastic products is not impacted.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Yes

**Possible 2021 Legislative Priority?** Yes. Implementation of the policy would quickly reduce waste and contamination in MRFs.

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<sup>70</sup> The Recycling Partnership, [2019 West Coast Contamination Initiative Research Report](#).

## **Does this proposal require additional funding or changes to resource allocation?**

No, this approach would not require taxpayer funds other than promulgation of the legislation.

### **Proposal(s):**

It is proposed that flexible plastic bags, films, wraps and pouches cannot be labeled with the recycle word or symbol since the items are not curbside-recyclable materials. The definition of curbside recyclable materials is based on The Sustainable Packaging for the State of California Act of 2018, [Public Resources Code 42370.2](#).

Products that contain post-consumer recycled content may be labelled accordingly.

**Schedule for Implementation:** The time required for implementation is one year.

### **Related Issues:**

None

### **Background:**

#### Scale of Flexible Plastic Waste and Contamination Problem

Figure 1 shows the massive scale of flexible plastic waste generation and curbside contamination in California.

In the [2018 Waste Characterization Report](#), CalRecycle reported that 3,389 million lbs/year of plastic bag film and wrap waste was generated. (This amount does not include plastic bags intended for use as trash bags.) In the same report, CalRecycle states that plastic bag, film and wrap contamination is the largest type of contamination in curbside recycling bins at 12% by weight. Based on a survey of plastic film processors in California and nearby Nevada<sup>71</sup>, there is only capacity to recycle about 3% film waste. Therefore, about 97% of the waste is estimated to be disposed. [Store dropoff bins are no longer legally required in California](#) & have largely disappeared, most likely due to the lack of value and buyers for the contaminated, mixed post-consumer waste. The few plastic processors that exist prefer to buy clean Grade A or Grade B plastic film bales generated from the retail distribution centers<sup>72</sup>.

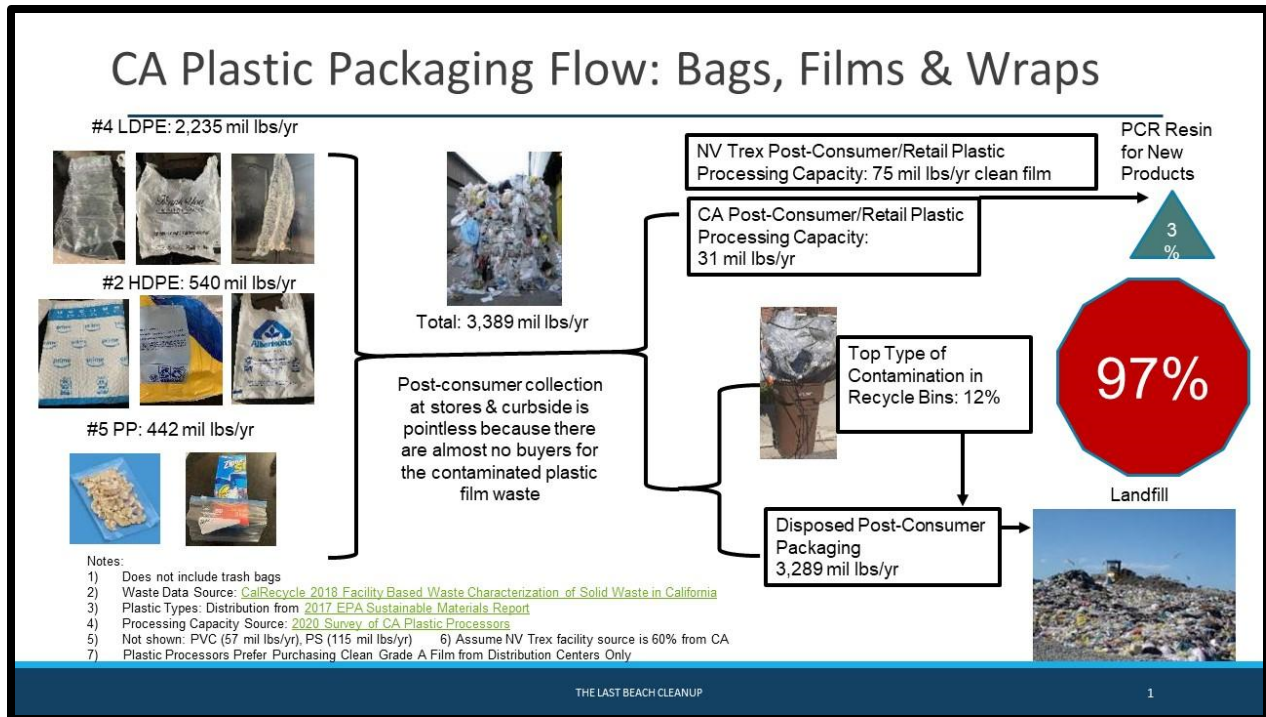
Figure 1: Flow Chart of California Plastic Bag, Film and Wrap Waste

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<sup>71</sup> [2020 Survey of California Plastic Waste Processors](#) performed by The Last Beach Cleanup.

<sup>72</sup> [Motley Fool](#), November 29, 2020





### Harms to MRFs:

According to TRP<sup>73</sup>: “Plastic bags cause MRF operators to shut down the recycling line many times a day to cut off bags that have wrapped around equipment. This maintenance shut down reduces throughput for a facility, raises cost of labor to sort materials and maintain equipment, increases waste coming out of the MRF, and puts workers at risk of injury when they are performing maintenance.”

### Contamination in Paper Bales:

MRFs and paper/cardboard processors agree that contamination of paper bales by plastic bags/films is a significant, costly problem. Paper/cardboard is a vital, valuable resource that must be recycled to avoid sourcing new feedstock (trees). Plastic contamination lowers the quality and material value of the paper and cardboard bales.

### Labels are Causing Consumer Confusion

Figure 2 shows examples of plastic bags, films, wraps and pouches with the “recycle” word or symbol collected in Southern California. While MRFs in Southern California do not accept plastic bags, films, wraps and pouches in curbside bins, the products labeled as “recyclable” has led to consumer confusion. Based on surveys focused in Southern

<sup>73</sup> The Recycling Partnership, [2019 West Coast Contamination Initiative Research Report](#)

California, TRP<sup>74</sup>, found that the majority of residents think plastic bags are accepted in their curbside recycling program.

Figure 2: Examples of Flexible Plastic Products with Recycle Word or Symbol



### Consumer Confusion is Causing Curbside Contamination

Figure 3 shows examples of plastic bags, films, wraps and pouches seen in curbside bins in Southern California in 2020.



<sup>74</sup> The Recycling Partnership, [2019 West Coast Contamination Initiative Research Report](#).



# **Policy Proposal 21-28: Renewable Technology / Organic Discards to Energy Infrastructure and Market Development**

**Adopted:** May 5, 2021

**Authors:** Coby Skye, Alex Oseguera

**Background:** The Statewide Commission on Recycling Markets and Curbside Recycling (Commission), was created by the California Recycling Market Development Act, Assembly Bill 1583 (AB 1583, Eggman) and requires the Commission to, among other things, issue policy recommendations to achieve market development and waste reduction goals. The priorities of the Commission include developing California markets for processing and re-manufacturing recycled materials, achieve the Senate Bill 1383 (Lara, 2016) targets, achieve the state policy goal of Assembly Bill 341 that not less than 75% of solid waste generated be source reduced, recycled, or composted.

In their SB 1383 regulations and related documentation, California's Department of Resources Recycling and Recovery (CalRecycle) noted the following findings:

- Organic materials that are discarded make up approximately 67 percent of the total waste stream sent for disposal each year (CalRecycle 2015, 2019).
- Organic waste decomposing in landfills accounts for 20 percent of the total anthropogenic methane generated in California.<sup>[1]</sup>
- Approximately 27 million tons of organic material will need to be redirected from landfills by 2025 to meet the SB 1383 reduction goal, including edible food recovered for human consumption as well as organic discards that will need to be processed at compost, anaerobic digestion (AD), chip-and-grind, or other organic waste processing facilities.<sup>[2]</sup>

## **Organic Discards Diversion: One of the most cost-effective Carbon Negative Emissions Opportunities**

SB 1383 (Lara, 2016) establishes a state-wide target to divert 75 percent of organic landfill waste to energy and soil amendments by 2025. This is one of the most urgent actions California can take to address the climate emergency. It is important to meet the goals of SB 1383 on time and as soon as possible. In California, a subset of landfills, dairies, and certain facilities in the oil and gas sector are among the largest sources of methane emissions, a powerful greenhouse gas (GHG) "super pollutant" also known as a Short-Lived Climate Pollutant (SLCP). Methane is 74 times more damaging to the climate than carbon dioxide emissions from fossil fuels. JPL/NASA data published in "California's methane super-emitters" in November 2019 found:

“Unique opportunities for mitigation are presented by point-source emitters—surface features or infrastructure components that are typically less than 10 metres in diameter and emit plumes of highly concentrated methane... We estimate net methane point-source emissions in California to be 0.618 teragrams per year (95 percent confidence interval 0.523–0.725), equivalent to 34–46 per cent of the state’s methane inventory for 2016. Methane ‘super-emitter’ activity occurs in every sector surveyed, with 10 percent of point sources contributing roughly 60 percent of point-source emissions—consistent with a study of the US Four Corners region that had a different sectoral mix. The largest methane emitters in California are a subset of landfills, which exhibit persistent anomalous activity. Methane point-source emissions in California are dominated by landfills (41 per cent), followed by dairies (26 per cent) and the oil and gas sector (26 per cent). Our data have enabled the identification of the 0.2 percent of California’s infrastructure that is responsible for these emissions. Sharing these data with collaborating infrastructure operators has led to the mitigation of anomalous methane-emission activity.”

On the positive side, reducing methane and other SLCP emissions is a primary way to benefit the climate now. Diverting organic material from landfills is a primary strategy to help achieve methane emission reductions. California is relying on SLCP reduction for more than one-third of all the carbon reductions needed to meet the requirements of SB 32 (Pavley, 2016). Organic material policies present a significant opportunity for preventing and capturing rogue methane emissions, achieving the states SLCP reductions, addressing the climate crisis, and helping to avert the most extreme climate disasters anticipated by 2030 by the Intergovernmental Panel on Climate Change (IPCC). The best way to do this is to follow the waste management hierarchy: first reducing the amount of organic material generated to the extent feasible, such as adopting Model Water Efficient Landscape Ordinances (MWELO) to source reduce organic discards or recovering edible food for human consumption; then diverting organic discards to composting or anaerobic digestion, or to biomass conversion facilities for organic materials that cannot be composted or digested; then finally disposing contaminated or otherwise unrecoverable organic discards.

Organic discards have been disposed of at landfills for more than fifty (50) years. While source reducing organic discards is a top priority and this policy focuses on diverting organic discards from landfills, best management practices to reduce fugitive emissions at landfills should also be encouraged.

Using composting and anaerobic digestion (and gasification or pyrolysis technologies where biological decomposition isn’t possible), organic discards such as food scraps, green waste and wood waste can be diverted from landfills and converted into carbon-negative soil amendments and fuels for electricity generation, vehicles, backup generators, and renewable pipeline biogas among other applications. Recycling organic

discards also produces compost, mulch, and other products that are crucial to achieving the state's climate and healthy soils goals. Processes with significant **negative** carbon emissions are critical to reaching the state's goal of carbon neutrality by mid-century. Lawrence Livermore National Laboratory finds that conversion of organic discards to energy is the single biggest and one of the most cost-effective and immediate opportunities in the state to provide carbon negative emissions.<sup>[3]</sup>

Using anaerobic digestion to produce renewable natural gas also provides many other critical benefits:

- Reduced air pollution from diesel trucks, which are the biggest source of air pollution in the San Joaquin Valley and South Coast Air Districts.
- Supplementing local energy supplies, including long-duration energy storage and flexible generation power that are critical for energy reliability.
- Providing carbon negative fuel for backup generators, renewable hydrogen for fuel cells, combined heat and power, cooling, and a low carbon fuel for industrial and manufacturing processes that cannot be electrified.

CalRecycle has estimated that meeting the diversion targets of SB 1383, even with significant source reduction, will require approximately 100 new facilities across the state to handle millions of tons of organic material, which in turn will require almost 4 billion dollars of capital investment in this new infrastructure.<sup>[4]</sup> To accelerate development and maximize the benefits of diverted organic discards projects, the state ought to allocate \$1.750 billion in funding for new infrastructure investments that prioritizes carbon-negative end uses, community resilience, energy security, jobs, and economic development, and other benefits to local communities. As part of this funding, the state should include conversion of organic discards to energy through retrofitting of existing facilities, such as anaerobic digestion at waste water treatment plants which are the most cost effective way to digest organic discards to provide for better methane capture and conversion to electricity or renewable biogas. This funding for infrastructure can be used most effectively when source reduction is prioritized and facilities are right sized, regardless of facility type, to process only what is discarded.

### **Market Demand/Development for Organic Discards Beneficial Product Biogas:**

In 2006, the California Legislature passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32), which created a comprehensive, multi-year program to reduce GHG emissions in California. Under the AB 32 Scoping Plan, CARB identified the Low Carbon Fuel Standard (LCFS) as one of nine discrete early action measures to reduce CA's GHG emissions. The LCFS is a key part of a comprehensive set of programs in CA to cut GHG emissions and other smog-forming and toxic air pollutants by improving vehicle technology, reducing fuel consumption, and increasing transportation mobility options. The LCFS is designed to decrease the carbon intensity of California's transportation fuel pool and provide an increasing range of low-carbon and renewable

alternatives, which reduce petroleum dependency and achieve air quality benefits. It is critical that regulations be clarified so that they do not directly and immediately harm the goals/progress of the LCFS program.

The Greenhouse Gas Reduction Fund (GGRF) receives Cap-and-Trade auction proceeds appropriated by the Legislature and Governor for projects that support the goals of AB 32. Eligible investments identified in Statute include reducing greenhouse gas emissions through increased in-state diversion of municipal solid waste from disposal through waste reduction, diversion, and reuse. In the past five years, CalRecycle has only received small amounts of Greenhouse Gas Reduction Fund (GGRF) funding and has not had other funding to allocate to diverted organic waste. The California Public Utilities Commission (CPUC) has also provided about \$6 million to two diverted organic waste projects to subsidize the costs of renewable pipeline biogas, but CPUC funding has mostly gone to dairy digester projects and has now been used up. Additionally, the CPUC has never incentivized interconnection costs for diverted organic waste to electricity projects. Both the California Air Resources Board (CARB) and the California Energy Commission (CEC) have also proposed ending the funding for near-zero emission trucks that can run on renewable biogas from organic waste. This makes the market much riskier for renewable biogas project developers and for local jurisdictions that would like to use renewable biogas to replace diesel, the biggest source of transit air pollution, in garbage trucks and other heavy-duty vehicles, but will be stuck in or switch to diesel if the state stops incentivizing near-zero emission medium and heavy duty trucks. The result is diesel pollution continuing to negatively and disproportionately impact many of the most devastated environmental justice communities, indefinitely, without any other viable strategy that can reduce diesel pollution now or in the near term, like near-zero-emission medium and heavy duty refuse collection trucks that can and do run on carbon sequestered renewable biogas, creating sustainable local circular economies. There needs to be an effort to incentivize near zero emission technologies and policies should not create energy shocks. Reasonable time periods must be provided to allow for the orderly transition to new renewable sources generated within the State of California.

### **Renewable Natural Gas Standard (RNGS) and Procurement requirement: transportation, pipeline, and electricity pathways**

State policies could help local jurisdictions and support the state's goal of 75% organic waste diversion from landfills now. For instance, CARB could support more near-zero emissions trucks that run on renewable biogas from diverted organic waste now, and establish a Low Carbon Fuels Standard (LCFS) pathway for biogas used to make electricity to power electric vehicles. The State should also create a Renewable Natural Gas Standard (RNGS) that requires some portion of our natural gas supply to be generated from diverted organic waste sources.

A minimum biogas content or procurement requirement for renewable natural gas utilization in the pipeline/California energy marketplace would help maximize the demand for biogas, and as such, the demand for carbon sequestration via biogas, and minimize the utilization and production of fossil fuel natural gas. A RNGS would help create a more diverse and resilient renewables portfolio, reward carbon-negative power generation, support additional diversion of organic discards from landfills, and begin to make the natural gas market cleaner and more sustainable, a market much larger than the electrical market. Fossil fuel natural gas is utilized to provide over 45% of the In-State Generation of electricity. California imports more than 90% of the natural gas it uses, costing billions of dollars per year. Requiring the use of renewable biogas would displace fossil fuel consumption. According to the Bioenergy Association of California:

“Renewable gas provides a cleaner, safer and more sustainable alternative to fossil fuel gas. Made from organic waste, renewable gas can replace fossil fuel gas and provide many other benefits. Most importantly, renewable gas can:

- Cut greenhouse gas emissions by millions of tons per year;
- Produce renewable electricity that is available 24/7;
- Provide the lowest carbon transportation fuels;
- Cut fossil fuel use, air and water pollution;
- Reduce landfilling by millions of tons per year;
- Reduce catastrophic wildfire;
- Protect ratepayers by diversifying California’s gas supply; and
- Produce two to six times as many jobs as fossil fuel power.

California could produce almost 300 billion cubic feet of renewable gas per year just from organic waste --the waste from food and food processing, livestock, agriculture, yard waste, construction debris and other wood waste, soiled paper and forest biomass. Instead of landfilling or burning that waste, California could use it to generate enough renewable electricity to power 2 to 3 million homes or to generate 2.4 billion gallons of clean, ultra-low carbon transportation fuels.”<sup>[5]</sup>

Methane-rich biogas is an excellent source for green hydrogen, the holy grail of sustainable energy, and offers a viable pathway to transition from diesel now to full carbon-free resourced electrification in the future. The increased cost of utilizing biogas



in the natural gas market will help to offset the counter-productive incentives for fossil fuel natural gas production.

California's Renewables Portfolio Standard (RPS) program was established in 2002 by Senate Bill 1078 (Sher, 2002) with the initial requirement that 20% of electricity retail sales must be served by renewable resources by 2017. The program was accelerated in 2015 with SB 350 (de León, 2015) which mandated a 50% RPS by 2030. SB 350 includes interim annual RPS targets with three-year compliance periods and requires 65% of RPS procurement to be derived from long-term contracts of 10 or more years. In 2018, SB 100 (de León, 2018) was signed into law, which again increases the RPS to 60% by 2030 and requires all the state's electricity to come from carbon-free resources by 2045. The CPUC implements and administers RPS compliance rules for California's retail sellers of electricity, which include large and small investor-owned utilities (IOUs), electric service providers (ESPs), and community choice aggregators (CCAs). The California Energy Commission is responsible for the certification of electrical generation facilities as eligible renewable energy resources and adopting regulations for the enforcement of RPS procurement requirements of publicly owned utilities (POUs).

The RPS jumpstarted the electric sector's transition to renewables. A RNGS could similarly jumpstart the decarbonization of this much larger market. In-state biogas production from diverted organic discards could replace over 20% of pipeline fossil natural gas, and the significant negative carbon intensity of RNG could be an essential strategy to decarbonize pipeline natural gas and help CA achieve its net carbon neutrality goal.

CPUC incentives for both pipeline interconnection for biogas generated from organic discards and interconnection with the electrical grid for electricity generated from biogas from organic discards would help facilitate adoption and penetration of RNG into the fossil fuel natural gas market.

**Purpose:** State funding to accelerate the development of organic discards collection, processing and diversion projects, to incentivize the most beneficial projects which are critical to meet the requirements of SB 1383 and SB 32. For example, California has allocated more than \$800 million to reduce emissions from dairy waste, the largest source of methane from organic waste, and that funding has led to the development of more than 150 new dairy digesters in the last five years. Funding for local projects that divert organic discards generated in the urban sector could be enhanced, for new or existing facilities (e.g. composting facilities or wastewater treatment plants). Reducing organic discards at the source and eliminating organic material sent to landfills is the top priority.

**Legislation Required, or interaction with an agency other than CalRecycle:** Yes, legislation or a ballot initiative is required to allocate \$350 million per year from RPS, GGRF, statewide tax, and/or bond funding for a more complete sustainable system of organic waste collection, processing and diversion projects. Other agencies than

CalRecycle would be involved, including the CPUC for pipeline and transmission line incentives and either CARB or the CEC for vehicle incentives.

**Proposal:** Successfully achieving California's ambitious recycling and climate crisis goals requires partnerships and commitments from the state, local governments, solid waste management and recycling industries, and recycling and organic waste project developers. A state allocation of \$1.75 billion over the next five years, with a RNGS and LCFS pathway, would provide sufficient incentive to create partnerships with private industry and be a catalyst for the needed development to achieve the state's goals.

1. Recommend creating a Renewable Natural Gas Standard (RNGS) to establish a minimum renewable content and procurement requirements for natural gas generated from diverted organic waste, similar to the RPS for electricity.
2. Recommend establishing an LCFS pathway for biogas from diverted organic waste used to produce renewable electricity as a fuel for electric vehicles.
3. Recommend allocating \$350 million per year, over five years, for infrastructure for a complete system of organic waste collection, processing, diversion, and interconnection projects to reduce landfill waste and provide carbon negative emissions. This allocation could include, but is not limited to, grants, incentive payments, low-interest loans, loan loss reserves, interest rate reductions, loan guarantees, or other credit enhancements. The funding shall be allocated as follows:
  - a. **\$100 million per year** for developing new or expanding existing organic discards composting, anaerobic digestion, and waste prevention facilities that can provide documented and significant landfill diversion and carbon emission reduction benefits on a lifecycle basis. The capacity for such facilities should be right-sized based on the waste diversion hierarchy and local need.
  - b. **\$100 million per year** to the CEC or CARB for incentives for near-zero emission (or zero-emission, when commercially available) medium- and heavy-duty sector vehicles that run on biogas produced from organic waste.
  - c. **\$50 million per year** for developing and implementing organic discards source reduction, collection, and processing programs and infrastructure, including edible food recovery.
  - d. **\$50 million per year**, to incentivize interconnections for pipeline biogas generated from organic discards at new or existing facilities.
  - e. **\$50 million per year**, to incentivize interconnection for electricity generation from organic discards generated at new or existing facilities.

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[1] CalRecycle Contractor's Report by Ascent Environmental, Inc., *Draft Environmental Impact Report: SB 1383 Regulations Short-Lived Climate Pollutants: Organic Waste Methane Emission Reduction*, July 30, 2019.

[2] CalRecycle, *Analysis of the Progress Toward the SB 1383 Waste Reduction Goals*, August 18, 2020.

[3] Lawrence Livermore Nation Lab, *Getting to Neutral: Options for Negative Carbon Emissions in California*, January 2020.

[4] Bioenergy Association of California, *Decarbonizing The Gas Sector: Why California Needs A Renewable Gas Standard*, November, 2014, <https://www.bioenergyca.org/news/bac/bac-releases-groundbreaking-report-on-renewable-gas/>

[5] CalRecycle, *Initial Statement of Reasons – Appendix A – Cost Update*, December 2019, page 19, <https://www2.calrecycle.ca.gov/Docs/Web/115980>

## **Policy 21-29: Carbon Farming Analysis and Promotion**

**Author: Tedd Ward**

**Adopted:** June 16, 2021 **Updated:** December 1, 2021

**Background:** Efficient markets respond to market demand. Expanding the demand for compost, mulch and soil amendments will be essential as the volumes of these products increase. Thus, it is exceedingly fortunate that the need to address global climate change is driving the need to manage organics differently. Making compost from organic discards and using compost to sequester carbon has multiple climate benefits. As they decompose in a landfill, organic discards generate methane - a potent greenhouse gas. Even better, a one-time application of finished compost can help soils sequester carbon for multiple decades. While there are many aspects to California's Healthy Soils Initiative, several farming and landscaping practices can help sequester carbon. Carbon farming involves implementing practices that are known to improve the rate at which CO<sub>2</sub> is removed from the atmosphere and converted to plant material and soil organic matter. Carbon farming is successful when carbon gains resulting from enhanced land management or conservation practices exceed carbon losses.

Research by Whendee Silver of UC Berkeley indicates that a single application of a half-inch layer of compost on grazed rangelands can significantly increase forage production (by 40-70%), increase soil water holding capacity (by roughly 26,000 liters per hectare), and increase soil carbon sequestration by at least 1 ton per hectare per year for 30 years, without re-application. Compost provides a source of energy to the soil ecosystem, and improves soil moisture conditions, which leads to increased plant growth. More plant growth leads to more carbon dioxide being removed from the atmosphere through the process of photosynthesis, leading to increased transfer of carbon dioxide through the plant to the soil as roots, root exudates and detritus, yielding additional soil carbon and water holding capacity, in an ascending spiral of soil carbon increase, all from one initial compost application.

With half the state's land area in rangelands – about 56 million acres – the potential for land-based carbon sequestration is enormous. The New York Times reports that compost treatment of just 5% of that area could offset 80% of current emissions from the agricultural sector. Compost transport and application costs remain significant barriers.

California has committed to moving towards a system where food and organic materials are rarely landfilled. While SB 1383 does include procurement requirements for compost, coordinated research about and promotion of carbon farming techniques, measurement and reporting will further demonstrate the multiple benefits of compost application.

Compost application increases water retention in soils, and can be part of a comprehensive strategy to reduce fire hazards between wildlands and urban areas.

Most California communities have embraced promotion of backyard composting as a waste prevention strategy. The basic information about how use of finished compost and mulch and other gardening techniques can help sequester carbon in the soils should be included as part backyard and on-site curricula statewide. Backyard composting and carbon farming are simple, practical, tangible actions individuals can take to address climate change.

Recently, the California Department of Food and Agriculture has expanded its Healthy Soils Incentives Program to provide financial incentives (\$67.5 Million in FY 21/22) to California growers and ranchers to implement conservation management practices that sequester carbon, reduce atmospheric greenhouse gases (GHGs), and improve soil health. GHGs benefits are estimated using quantification methodology and tools developed by California Air Resources Board (CARB), USDA-NRCS and CDFA and soil health improvement will be assessed by measuring soil organic matter content. CDFA also offers technical assistance including workshops and Climate Smart Education Specialists as a partnership with the University of California.

**Purpose(s):** This proposal would:

- Assess the potential for the strategic and general application of compost and mulch materials and techniques to sequester carbon as an important part of California's efforts to reduce greenhouse gas emissions.
- Assess the potential for establishing standards for the application of finished compost and mulch materials where appropriate and practical in the aftermath of fires, along wildland/urban boundaries or as part of mine reclamation.
- Assess potential concerns and controls for reducing the potential for application of finished compost to be a vector for the spread of invasive weeds.
- Build partnerships between communities promoting different carbon farming practices for agricultural sectors, municipal parks, schools, and volunteer networks supporting carbon farming to support consistent measurement and analysis.
- Develop adaptable outreach materials, in partnership with CDFA and other state agencies, to promote carbon farming activities for specific types of land and agricultural application, erosion control, for municipalities, community gardens, parks and schools, and for individuals.

**Proposal(s):** That CalRecycle technical staff hire a qualified consultant or coordinate staff efforts to produce a report that would:

- Provide a basis for quantifying the GHG-reduction benefits of strategic application of compost and mulch materials in agricultural, landscaping, restoration, erosion control, conservation and general application of compost and mulch materials and similar techniques to sequester carbon, so such benefits may be considered under environmental reviews.

- Assess the potential for establishing standards for the application of finished compost and mulch materials where appropriate and practical in the aftermath of fires, along wildland/urban boundaries or as part of mine reclamation.
- Address the potential for the application of compost and mulch to spread contaminants such as non-degradable materials or invasive species or pathogens, and suggest controls to be established to address those ongoing concerns.
- Establish a criteria-based assessment of the optimal strategies to document and implement the benefits of carbon farming through voluntary and state-directed initiatives.
- Summarize municipal programs promoting different carbon farming practices for agricultural sectors, municipal parks, community gardens, schools, and volunteer networks, with commentary regarding measurement and analysis of the sequestered carbon as measured or reported under different programs.
- Assess ways that carbon farming efforts can be acknowledged and supported through procurement under SB 1383-related programs.
- CalRecycle should actively participate in further development of the *California 2030 Natural and Working Lands Climate Change Implementation Plan* so this plan incorporates compost and carbon farming to further help carbon sequestration and market demand for finished compost and mulch.

Also, that CalRecycle staff further develop webpages devoted to Carbon Farming, highlighting California communities with carbon farming programs. CalRecycle's web resources on this topic would include adaptable outreach materials to promote carbon farming and related community-engagement activities for specific types of land and agricultural application, erosion control, for municipalities, parks and schools, and for individuals.

**Would this policy proposal require legislation, or interaction with an agency other than CalRecycle?** Not immediately. CalRecycle staff responsible for fostering the development of markets for finished compost could begin coordinating these potential carbon farming efforts with other entities with interest in soil or water conservation, including the California Association of Resource Conservation Districts, the California Farm Bureau, agricultural trade associations like CCOF, the California Department of Food and Agriculture, the State Soils Staff from the USDA Natural Resources Conservation Service, and the Department of Conservation Division of Mine Reclamation.

The Healthy Soils Program (HSP) provides technical and financial incentives for farmers and ranchers to adopt healthy soils practices, including compost application. Approximately, two-thirds of HSP grantees are using compost as part of their healthy soils project.

**Possible 2021 Legislative Priority?** No.

**Does this proposal require additional funding or changes to resource allocation?**

No. This would be part of CalRecycle's larger effort to administer SB 1683 and related requirements for shifting management of organic materials away from disposition in landfills (and associated methane generation) and towards processing those materials as resources.

**Related Issues:** Promoting and realizing the benefits of carbon farming are an essential aspect to building customer demand for mulch and finished compost.

Eco-Cycle has initiated a Community Carbon Farming Campaign, from which much can be learned:

<https://www.ecocycle.org/take-action/community-carbon-farming>