



California's Statewide Commission on Recycling Markets and Curbside Recycling

Policy Recommendations

Due July 1, 2021, Submitted June 25, 2021

Table of Contents

Executive Summary	4
Origins	6
Foreword	8
One Commission, Four Committees	10
The Recycling Market Development Committee	10
The Organics Committee	10
The Recycling Committee	10
The Labeling and Media Committee	11
Two-Person Working Groups	11
Priorities of this Commission	13
Urgent Action to Support Redemption	14
Let's Stop the Fires!	15
Stop Undermining Recovery Economics	16
Follow the Waste Hierarchy: Prevention First	19
Producer Responsibilities	21
Getting There from Here: Not less than 75% of Solid Waste Generated be Source Reduced, Recycled, or Composted	22
Legislative and Agency Responses to Commission Recommendations	26
Other Proposals	26
Illegal Dumping and Litter	27
Market Development Recommendations	28
Waste Prevention	33
Food Waste Prevention	33
Food Rescue	34
On-Site and Community Composting	34
Recommendations to Improve Recycling	36
Recommendations to Improve Organic Materials Management	37
Labelling & Media Recommendations	40
List of Policies	43

Policy 20-01: Extending Producer Responsibilities Framework for Household Hazardous Waste (HHW)	45
Policy 20-02: Transition from Single-Use Propane Cylinders to Refillable	49
Combined Policies 20-03/04: Precautionary Principle & Problem Products	54
Policy 20-05: State Agency Buy Recycled Campaign	61
Policy 20-06: Recycling Market Development Zone Loan Program	63
Policy 20-07: Consolidated Permit Process Utilization and Enhancement	65
Policy 20-08: Governor’s Office of Business and Economic Development (GO-Biz) Enhanced Role	68
Policy 20-09: CalRecycle Market Development Focus	69
Policy 20-10: Controls on Plastic Waste Exports	73
Policy 20-11: Carpet Stewardship and Flooring	76
Policy 20-12: Food Recovery Policies	79
Policy 20-13: Right to Repair	82
Policy 20-14: Beverage Container Recycling, Changes to the Bottle Bill and Support CalRecycle AB 54 Report	85
Policy 20-15: What is Recyclable?	89
Policy 20-16: Design for Recyclability - Plastic Container Labels and Shrink Sleeves	96
Policy 20-17: Design for Recyclability - Beverage Containers	101
Policy 20-18: Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling	105
Policy 20-19: Compostable Products Certification and Approval for Composting or Anaerobic Digestion	110
Policy 21-20: Letter to the Legislature on Urgency Changes to Bottle Bill	113
Policy 21-21: Correct Counterproductive Incentives	165
Policy 21-22: Adding Returnable Bottles into the California Bottle Bill	123
Policy 21-23: Redefine Reusable Food Service Packaging	125
Policy 21-24: Producer Responsibility for Market Development	128
Policy 21-25: Fiber products recycled content requirements	132
Policy 21-26: Hospitality Textile Recycling	140
Policy 21-27: Recovering Resources from Mixed C&D Debris	146

Policy 21-28: Renewable Technology / Organic Discards to Energy Infrastructure and Market Development	153
Policy 21-29: Carbon Farming	160
Policy 21-30: Label System for Products and Post-Consumer Management	163
Attachment A: Commission Policy Recommendation Scorecard	173

Executive Summary

The Legislature and Governor created California's Statewide Commission on Recycling Markets and Curbside Recycling (Commission) 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.

Working by consensus, the proposals that follow are the policy recommendations that the Commission unanimously considered most urgent.

In this report, the recommendations include policies intended 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. Commit 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 the value of materials separated for composting or recycling depends on removing contaminants resulting in clean organic materials and recyclables that have 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. As professionals, we seek to restore the public trust that when items are correctly placed in a recycling or composting bin, those materials are recovered in a legal and responsible manner. This effort includes ending the export of materials that cannot be verified as being recycled, and clarifying what can

and cannot be recycled or composted in California. We believe these are essential initial steps if recovery streams are to have markets. We know that end-use markets are essential for recycling and composting systems to work.

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. People, especially after the pandemic are very stressed, and recycling should not be stressful.

We appreciate the opportunity to provide these policy recommendations, and 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.

Origins

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 17 Commissioners are:

<u>Commissioner</u>	<u>Affiliation</u>
Heidi Sanborn, Chair	National Stewardship Action Council
Richard Valle, Vice-Chair	Tri-CED Community Recycling, CEO
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	Waste Management, Director of Government Affairs
Eric Potashner (resigned 4/20/21)	Recology, Senior Director of Strategic Affairs
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

Foreword

This Commission has been asked to do what is nearly impossible. Each of us has volunteered to do this, but readers should understand the context of these efforts. Serving without compensation, we have been asked to make recommendations about how California could:

- Build in-state recycling and composting capacity at a pace that is incompatible with the practical realities of permitting processes in California,
- 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.

Though this Commission is advisory, it operates within legal constraints on its communications and process including the [Bagley-Keene public meeting laws](#). Meetings of three 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 21st, 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 also created some 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.

Resolute support from CalRecycle staff made many of these challenges more manageable, such as getting Fair Political Practices Commission (FPPC) approval on % 2020 to be exempt from the requirement to file a Form 700 Statement of Economic Interest to the FPPC. CalRecycle was not given staff or funding to support the Commission in the original bill language so they are adding this work to their already full plate. We wanted to form more committees but CalRecycle stated they could not support more than four with hosting the calls, taking the notes, and helping draft the agendas.

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](#).

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

1. **Recommend policies to help CalRecycle meet the state's policy goals**
 - i. Not less than 75% 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% 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% reduction in disposed organic materials from 2014 levels by 2020
 - ii. 75% reduction in disposed organic materials from 2014 levels by 2025
 - iii. Recovery of 20% of edible food disposed from 2014 levels by 2025
4. **Identify products that are recyclable or compostable, and regularly collected in curbside recycling programs.**
5. **Provide regular feedback to CalRecycle on public messaging designed to encourage proper recycling and minimize contamination in curbside recycling programs.**

From the outset, we knew addressing these complicated issues would take time. After our final meeting of our first year on June 16, 2021, we will have held 24 full Commission meetings of 3-4 hours each, and more than 50 committee meetings and multiple two person meetings to develop ideas to bring to the committees and

Commission and write the report. In short, we have volunteered well over 2,500 hours of our time to help our great State of California achieve the statewide goals established for waste reduction and recycling. 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.

One Commission, Four Committees

Attempting to address the scope and detail required for policy considerations, this Commission established four committees with Chairs of each committee made ex-officio members of all other committees to facilitate communications.

The four committees were the primary forums for initial discussions on the topics addressed in this report, and most of the recommendations in this report initially came from one of these committees.

Each committee assumed responsibility for drafting policy recommendations in general topic areas, and the Commission delegated additional subject matter responsibilities as topics arose.

The Recycling Market Development Committee

Davis (Chair), Medrano, Potashner, Sanborn, Schneider (Vice-Chair) and Toyoda

The Market Development Committee is responsible for considering policies pertaining to California's market development goals as well as responsibility for addressing public comments with respect to construction and demolition materials and debris, carpeting, asphalt roofing, shingles, and drywall.

The Organics Committee

Cadena, Ferrante, Lapis, Kalpakoff (Chair commencing May 2021), Oseguera, Potashner (Chair through April 2021), Skye, Ward (Vice-Chair)

The Organics Committee is responsible for clarifying what is compostable, and considering policies pertaining to California's landfill methane-emission reduction goals and associated food rescue, organic materials disposal reduction, organic materials collection, and composting programs.

The Recycling Committee

Bouchard, Dell, Donlevy (Chair), Ferrante, Kalpakoff, Lapis, Oseguera (Vice-Chair) and Valle

The Recycling Committee is responsible for clarifying what is recyclable, and considering policies related to California's bottle bill and curbside recycling programs. This committee also addresses issues related to propane tanks, aerosol cans, and plastics recycling policies.

The Labeling and Media Committee

Davis, Dell (Chair), Donlevy, Schneider (Vice-Chair), Skye, and Toyoda

The Labelling and Media Committee is responsible for clearly communicating what is recyclable and compostable, and to provide feedback to CalRecycle on public messaging.

Two-Person Working Groups

During Commission meetings, two-Commissioner working groups were also established to address specific concerns that did not fit readily into the Committees. CalRecycle informed the Commission they could not provide any more administrative support than to the full Commission and four committees.

Waste Prevention: Schneider, Ward

This working group was responsible for drafting sections related to waste prevention, for both organic and non-organic materials. They incorporated recommendations from the Organics Committee relating to food waste prevention, food rescue, and on-site composting.

Report Structure and Editing, Plus HHW, EPR & Other Items: Sanborn, Ward

This group was responsible for the structure and editing of the report, for facilitating the process of moving policy proposals into the report and onto the google documents, and for addressing household hazardous wastes (HHW) and other discard materials that were not assigned to a Committee.

Liaison with Oregon Department of Environmental Quality: Toyoda, Lapis

This group was responsible for acting as a liaison with the Oregon Department of Environmental Quality to coordinate policy presentations, discussions, and analysis.

Construction and Demolition for Market Development Committee: Sanborn, Toyoda

This group was responsible to review the construction and demolition (C&D) materials and develop policies for the committee to consider. They developed policies regarding mixed construction and demolition sorting, and considered additional policies relating to road base, drywall, and roofing shingles.

Carpet and Flooring: Davis, Sanborn

This was a subcommittee of the Market Development committee to review the issues with the carpet stewardship program and make recommendations which resulted in the carpet policy.

Organic Materials Renewable Technologies: Skye, Oseguera

This two-Commissioner working group of the Organics Committee focused on developing a policy recommendation for a whole system approach for organic discard diversion based on the “new waste management hierarchy paradigm” and the specific

needs in organic source reduction, collection and processing infrastructure, and distribution of beneficial products.

Food Waste Prevention and Rescue, Exports and Precautionary Principle: Skye, Lapis

This two-Commissioner working group of the Organics Committee focused on policy recommendations to support the development of food rescue systems and to protect public health and the environment from toxins in products that could contaminate our composting systems, food, and the environment.

Organic materials Infrastructure: Potashner, Oseguera

This two-Commissioner working group of the Organics Committee focused on policy recommendations to support the development of necessary infrastructure to support recycling and organic waste reduction.

A note on numbering of policy proposals:

The first 19 policy proposals from this Commission were numbered as presented in our report from December 2020, renumbered as 20-xx. Some of these policies were updated in 2021. The Commission policies adopted in 2021 are numbered in the format 21-xx, where xx indicates the sequential numbering of policies as adopted, from 01 to 30. Policies 20-03 and 20-04 have been combined, making a total of 29 separate policy proposals in this report.

Priorities of this Commission

When Governor Newsom signed the legislation forming this Commission, California's ambitious goals for increasing recycling and composting and reducing the loss of materials via landfilling or incineration had already encountered significant headwinds. For recycling, **53% of buy-back redemption centers that were open in 2013 had closed by June 2021**, and market shifts and new export restrictions - especially those in China - had increased the challenges and costs of processing and marketing bottles and cans. The public is less likely to participate in recycling if it is inconvenient, if they feel items are not actually being recycled, or if environmental justice concerns are not being addressed.

To restore the public trust in California's recycling system, this Commission called for urgent and swift action on two core issues:

- 1) End the export of materials to countries that cannot properly recycle these materials due to lack of environmental regulation or proper labor standards, and ensure that packaging and products that are sold in the California marketplace are designed for recyclability and/or compostability and have markets.
- 2) Make the promise of a "deposit" program for the bottle bill real by **urgently increasing the number of redemption centers** so that Californians have accessible and convenient options to get their deposits returned.

Since the 1990's and the enactment of AB939, the market forces that supported the dramatic expansion of curbside recycling in California have changed. On the global stage, we need to first do no harm and assure that materials we export for recycling are getting recycled into new products while protecting people and the planet.

Some of the nation's largest haulers - Waste Management, Republic Services, and Casella - have adopted formal policies to sell residential plastic processed through its MRFs only to North American markets.

Lastly, there is a lot of discussion on the need to build "infrastructure," but building infrastructure is very expensive. To develop a cost-effective recovery infrastructure, we must focus on waste prevention first to right-size the system we build. Failing to implement waste reduction efforts first could result in over-building infrastructure at great expense.

Policy 20-10: Controls on Plastic Waste Exports

This Commission deeply appreciates the swift effort by members of the State Legislature to introduce legislation to codify many of the preliminary recommendations issued by the Commission, including the following:

1. AJR 4 (by Assemblymember Cristina Garcia) urging the Federal government to ratify the Basel Convention;
2. AB 881 (by Assemblymember Lorena Gonzalez) to reclassify the export of mixed plastics overseas as disposal;

3. SB 343 (by Senator Ben Allen) to eliminate the use of deceptive “recyclable” claims on products that do not have recycling markets;
4. AB 1201 (by Assemblymember Phil Ting) to limit the use of “compostable” claims;
5. AB 661 (by Assemblymember Steve Bennett) and AB 683 (Grayson) to update the State Agency Buy Recycled Campaign; and,
6. SB 289 (by Senator Josh Newman) to develop a program to safely and conveniently collect batteries for recycling.

Urgent Action to Support Redemption

The Commission submitted 8 specific recommendations on beverage container recycling in a letter on February 3, 2021 to the Legislature. That letter requested CalRecycle be granted authority to move funds and quickly open new redemption centers in areas without them. There are several bills in the legislature to deal with some of the bottle bill issues, as there are every year, but these need to be “urgency” bills to allow Californian’s to quickly benefit from an increase in redemption opportunities. In short, the Commission stands by its 17-0 recommendation that these urgent requests for action be addressed by the Legislature. California’s bottle bill system is not convenient for many Californians who need and deserve to have their money returned.

Californians should be able to trust that when they place a recyclable item in a recycling bin, that something good will come of that effort – and be assured that their recyclables won’t end up endangering vulnerable populations or becoming a source of pollution or environmental harm. They should be able to trust that if they are made to pay a deposit, that there will be a place not too far away where they could get that deposit back.

Inside California, the most urgent priority is to add more locations for redemption of bottles and cans. We must address the shortage of convenient locations for recycling as the Commission requested in our letter to the Governor’s office and legislature dated February 3, 2021. To further emphasize the importance of this issue, we asked the Chair and Vice-Chair to draft an editorial on the subject which ran in [CalMatters in April 2021](#).

California’s most urgent and direct recommendations with respect to California’s Bottle Bill still need to be addressed. Underscoring their importance, these recommendations were explicitly supported and echoed by the California League of Cities, the Rural Counties’ ESJPA, and the California State Associations of Counties.

With several counties now having experienced periods with few if any centers to redeem California Redemption Value (CRV) deposits, many critical elements of this historically successful program are continuing to decline. This compounds the public’s faltering faith that the State of California – in a central role unique in bottle-bill programs – really supports the CRV deposit system statewide. This Commission has several urgent concerns regarding this program:

- 1) Communities must have convenient access to places to redeem beverage containers for their deposits, because that is the promise under California’s bottle bill.

- 2) Many California families rely on container deposits to make ends meet – even more so when times are hard. The issue of not having accessible options to redeem bottle bill materials should be solved as it disproportionately hurts people who are economically disadvantaged.
- 3) Redemption centers and multi-material buy-back centers foster source separation, generally resulting in reduced contamination. As more of these centers close, Californians have a reduced ability to redeem source separated bottle bill materials.

These problems have been evident since 2013 and only gotten worse with the loss of many recycling centers in recent years. Urgent action is overdue, and **we repeat our calls for immediate action to increase redemption opportunities in California.**

[Policy 21-01: Letter to the Legislature on Urgency Changes to Bottle Bill](#)

Let's Stop the Fires!

In October 2019, a trash truck caught fire in the foothills of the San Bernardino Mountains. When the driver dumped the truck in a vacant lot, 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 one death 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 and small propane containers.

Additionally, the [South Bayside Waste Management Authority \(SBWMA\) had a 4-alarm fire](#) at their Recycling Processing Center which processes 80,000 tons per year (tpy) in San Carlos, California. SBWMA believes the fire 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. SBWMA was extremely fortunate that no facility workers or any of the 100 firefighters were injured in this incident. SBWMA and others may not be so fortunate in future incidents.

Additional threats to the SBWMA 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. SBWMA believes that self-insurance may not be financially feasible.

These are not isolated or rare events and issues. The [2019 Annual Waste & Recycling Facility Fire Report](#) summarizes “the waste and recycling industry has experienced 348 reported facility fires in the U.S. and Canada. Additionally, we incurred 52 reported injuries and five deaths that can be either directly or indirectly attributed to these fire incidents. Based on reasonable assumptions, we can extrapolate that 1,800-plus facility fires have occurred during that time, which, based on the number of facilities reported by the Environmental Research & Education Foundation (EREF), is more than 40% of the industry.” This does not include facility fires that are not reported in the media.

In summary, the disposal of Lithium-Ion batteries and propane cylinders in the trash and recycling whether separate or contained within 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 resulting in failure to meet our goals.

The Commission believes there is 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).

We were encouraged that a bill was introduced to require EPR for batteries by Senator Newman (SB 289) but unfortunately it did not move out of the appropriations committee in May 2021. **EPR for batteries, which includes batteries in electronic products, remains a very high and urgent priority of this Commission** due to the fact that some operators have been told insurance companies will be leaving the waste management sector due to the high risk and cost of fires. Facilities will not have the ability to self-insure, and some facilities may stop operations. If the real threat of lethal fires, harm to workers, and closing MRFs and other essential public facilities are not considered urgent to address, we are unsure what would be deemed urgent.

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

[Policy 20-02: Transition from Single-Use Propane Cylinders to Refillable](#)

Stop Undermining Recovery Economics

Sustainable businesses that are part of a circular economy can only be viable when they have a fair and level playing field. Today's economy is tilted towards extraction, having evolved by providing subsidies to what were, at the time, new extractive industries – such as oil and gas, timber harvesting, and mining. **We cannot achieve the recycling, diversion, and market development goals until the State of California aligns all policies to support and pursue achieving a circular economy, or another sustainable economic model.** Some existing state policies are subsidizing and driving linear make-take-waste behavior which the State concurrently says it wants to end under other policies such as achieving 75% recycling goal or GHG reductions.

We must work to harmonize policies throughout state government to achieve the vision and goals of the State. To align with Governor Newsom's goal of a circular economy as expressed in the State's May 2021 budget revision, we must remove the economic support for extractive industries and consider offering support to circular businesses until they are at scale.

Shifting to a Clean & Green Circular Economy

The Commission intends to further advise on the definition and application of "circular economy" in future reports, since the Governor and Legislature have used the term multiple times in the 2021 budget. The [Ellen MacArthur Foundation](#) definition of the Circular Economy has three key pillars:

- 1) Design waste and pollution out of the system,
- 2) Keep materials in use, and
- 3) Regenerate natural systems.

This proposal describes the wide variety of existing economic subsidies for established, profitable, and extractive industries. These subsidies result in an oversupply of non-recyclable and non-compostable waste materials in California's economy which is a cost shift to the public and the environment. It is important to point out that "waste" is a sign of inefficient systems resulting in a significant cost to business. By supporting the circular businesses, we literally will save millions of dollars in costs to our economy and reduce externalized negative costs to public health and the environment.

Many of the proposals in this report strive to move California towards a circular economy, as is reflected in the adopted Commission logo on the cover of this report.

The proposal that follows will help reduce incentives for waste generation and disposal and promote waste reduction and reuse.

[Policy 21-02: Correct Counterproductive Incentives](#)

Eliminate Problem Products & Keep Compost Clear of Contaminants

In addition to establishing systems to reduce fire hazards in discards, the Commission believes definitive action is required to systematically remove chemical contaminants and products that have proven to be problems for the state's recovery infrastructure and personnel. To compost and recycle correctly, we need to establish systems that continually keep those recovery streams clean and marketable.

Minimizing the amount of contamination in recyclables and organic materials is essential for the successful implementation of diversion programs. Recovery streams can be contaminated in two ways:

- i. Placement of incompatible materials that do not meet specifications for recyclables or organic materials established through state, county, and local policies.
- ii. Including materials into recycling programs that do not meet recyclability or compostability requirements.

The Commission recommends that state, county and local jurisdictions include the following elements in their waste management plans to minimize contamination:

- i. Only include verifiably recyclable or compostable materials in recovery collection programs.
- ii. Design processes to identify contamination in recycling streams at the point of collection.
- iii. Establish and implement an effective method to notify customers regarding the discovery of contamination.
- iv. Provide educational materials for proper usage, and methods to encourage proper sorting for non-contaminated recycling and composting streams.
- v. Establish and implement corrective action policies for repeated incidents of contamination.
- vi. Develop a method to eliminate materials from recycling programs if they do not meet recyclability or compostability standards to be set by the State.
- vii. Conversely, respond to initiatives to include materials and products that do meet California standards for recyclability or compostability.
- viii. Hold producers responsible to create products that have an end-of-life management plan.

A number of the policy recommendations by the Commission aim to properly identify materials and products that meet a real-world standard for being listed as recyclable and/or compostable. By doing so, a portion of the waste stream that cannot meet those standards will be counted as an increase in disposal for California's communities. The Commission recognizes that this policy direction may have significant impacts to the ability of local jurisdictions to meet AB 939 waste diversion mandates, and may have ramifications to the contractual relationship between jurisdictions and service providers.

The Commission recommends that CalRecycle develop and provide additional tools to local jurisdictions and service providers to be utilized in franchise/contract negotiations.

Numerous products are harmful to the environment, but the system is not moving fast enough to end the contamination and resulting increasing costs. The current system of passing legislation product by product is cumbersome and time consuming and why governments have passed “framework” legislation that gives policy direction to government agencies and empowers them to add products to the framework as necessary based on an objective process. Similar legislative efforts in California have thus far been unsuccessful.

Some products are immediately and easily identifiable as contaminants to recovery processes, significantly increasing costs for their removal through extra sorting and lack of markets.

Organic materials are nature’s circular economy and currency. Contaminants we introduce disrupt a very natural process. For organic materials recovery to be viable and circular, California needs to establish a process to identify and eliminate materials which are incompatible with biodigestion such as non-compostable stickers and labels on produce and even toxic chemicals such as PFAs, as outlined in these policies:

[Combined Policies 3 & 4: Precautionary Principle & Problem Products](#)

Follow the Waste Hierarchy: Prevention First

In 1989, when California committed to cut its waste in half within 10 years, that choice was made in part because communities statewide opposed expansion of incinerators and/or landfills. That opposition was largely based on the fact that people did not want to live near disposal facilities. Advocates for environmental justice recognize that such facilities tend to be located adjacent to lower-income and under-resourced communities.

Our current waste reduction strategies are not enough. The pace of disposal in California has been steadily increasing since 2013. California communities will again face challenges of how to build additional recovery or disposal capacity and service rates are already increasing. To state the obvious, materials are disposed of when the presence of such materials becomes an actual cost or burden. To meet California’s ambitious greenhouse gas reduction and recycling goals requires that we change how materials are valued through all stages of California’s economy.

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.

As California considers how to transition from an overdependence on a linear economic model where items are used only once before discard - to a more circular economy where goods can be reused and repaired - we should better appreciate the diversity of businesses that already exist and foster reuse, repair, and resource conservation through waste prevention.

Community Waste Prevention Infrastructure Sectors include:

1. Food rescue, gleaning, and redistribution
2. Composting: Community, on-site and backyard composting facilities
3. Design for Waste Reduction: Materials substitution for reducing hazards, design products for durability/reuse, [LEED](#) architecture, and xeriscaping
4. Thrift shops: Consignment, resale of clothing, furniture, and appliances antique shops
5. Vehicles: repair, restoration and salvage
6. Building Materials: Deconstruction: salvage and resale of fixtures and materials
7. Computer / Electronics: repair, salvage, and resale
8. Reusable transport, product and bulk goods packaging
9. Reusable and refillable food packaging – e.g [LOOP](#)
10. Outreach and education regarding waste prevention and reuse

The proposals that follow suggest ways that these sectors of the economy can be supported to enhance their central importance in reducing waste in California's communities.

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. The Commission has discussed but not yet reached consensus regarding policy concepts for financial support and constructive engagement with the wide range of businesses and nonprofits that provide services to prevent waste, keep goods in circulation, or reduce use of hazardous or toxic materials. In the coming year, the Commission will solicit suggestions from representatives of these sectors regarding ideas of how California might better foster growth of the many businesses and nonprofits already working in waste and toxics prevention, reuse, repair, and resale.

The Commission was given many tasks, and in our first year was unable to accomplish everything we wished we could. One regret is we were unable to finalize more policies to support waste prevention. We offer three key policies to reduce waste through right to repair, restoring successful bottle refilling programs, and suggestions to protect the integrity of the term 'reusable' in association with food service packaging.

[**Policy 20-13: Right to Repair**](#)

[**Policy 21-22: Adding Returnable Bottles into the California Bottle Bill – No Crushing Process**](#)

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

There is much more to do and we encourage anyone to offer suggestions to the Commission to expand our recommendations on waste prevention.

Producer Responsibilities

The Commission has stated firmly that we need producers to be responsible for their products in a variety of ways including design, material choice, labeling, and supporting markets. However, what terms we use to describe these various producer responsibilities vary, some being Product Stewardship and others using Extended Producer Responsibility (EPR). [CalRecycle's website](#) states “***Extended Producer Responsibility (EPR), also known as Product Stewardship, is a strategy to place a shared responsibility for end-of-life product management on producers, and other entities involved in the product chain, instead of the general public; while encouraging product design changes that minimize negative impacts on human health and the environment at every stage of the product's lifecycle.***” These terms are used interchangeably in this report to align with CalRecycle but we will likely revisit this in the fall of 2021 and make recommendations on the definitions of Product Stewardship vs. EPR.

Under California's existing producer responsibility programs, CalRecycle oversees the Producer Responsibility Organizations (PROs) that implement recovery and recycling operations for their products. California has now established EPR programs for mercury thermostats, pesticide containers, paints and stains, carpeting, mattresses, pharmaceuticals and sharps. Producer responsibility programs have proven their worth as mechanisms under which producers can be engaged in the planning, decisions, and rapid investments necessary to build recovery into their product's lifecycle in California.

To reach California's ambitious recovery goals, we must find ways to increase the proportion of discards that can be recovered. Concurrently, the increasing toxicity and hazardous nature of discards due to increasing incorporation of electronics, batteries, fuels, and liquids into products make attainment of such lofty goals unrealistic. Making producers be responsible for product take-back is especially important for hazardous, toxic, or potentially dangerous products that are otherwise destined to be illegally disposed of into the recycling, compost, trash, or illegally dumped. Increasing toxicity of products is undermining the shift to a circular economy.

The other two important producer responsibilities are:

1. To tell the truth to the consumer through proper labeling and public education indicating if the product is reusable, contains recycled content, recyclable or is compostable; and
2. To ensure that labels, packaging, or additives are not contaminants to the recycling or composting systems.

[Policy 20-16: Design for Recyclability - Plastic Container Labels and Shrink Sleeves](#)

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

In addition to producers being responsible to prevent contaminants from entering the recycling and composting systems, the Commission supports producers having more direct responsibility to develop markets for the discarded materials from their products and packaging.

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

For all Extended Producer Responsibility (EPR) or product stewardship programs, robust public oversight and enforcement to ensure a fair and level playing field are essential and CalRecycle acknowledges that in their [EPR legislative checklist](#). For programs for which EPR is a promising path, the legislature or CalRecycle should set the program performance standards for the producers to achieve those goals. Then, CalRecycle has the essential role to ensure that those recycling goals are met so the public benefits from a great program. CalRecycle should always have clear authority to penalize producers for failing to meet the goals or to take the program away from that PRO and give it to another stewardship organization or have the government take it over and run the program and send the producers the bill.

For the existing carpet stewardship program, the Commission had some specific recommendations that came from the Market Development Committee.

[Policy 11: Carpet Stewardship and Flooring](#)

Getting There from Here: Not less than 75% of Solid Waste Generated be Source Reduced, Recycled, or Composted

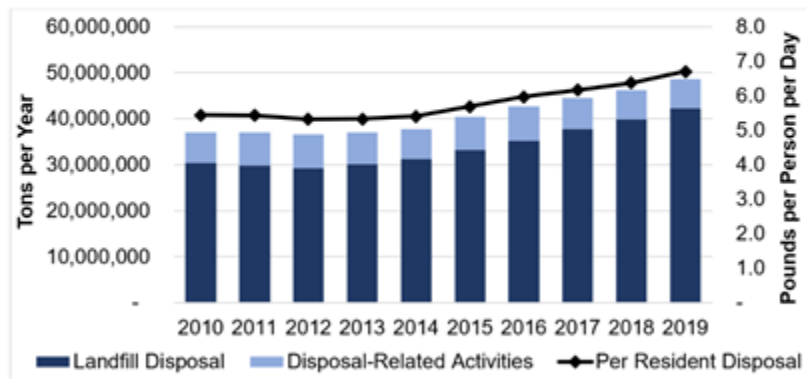
In 2012, the California Legislature declared under [AB 341 \(Chesbro\)](#) that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter. The graphs that follow demonstrate that while [California's communities have made great strides in recycling in some respects over the years](#), a 75% recovery rate will not be achieved in 2020. In fact, CalRecycle projects California's recovery rate in 2020 to be about half of that, closer to 37%.

The Commission presents this report as our best consensus advice regarding what California should do in the coming months to bring California closer to this ambitious goal.

The following charts demonstrate the challenging trends: since 2013 disposal has been increasing, and the recycling rate (which includes source reduction and composting) is decreasing.

Disposal & Disposal-Related Activities

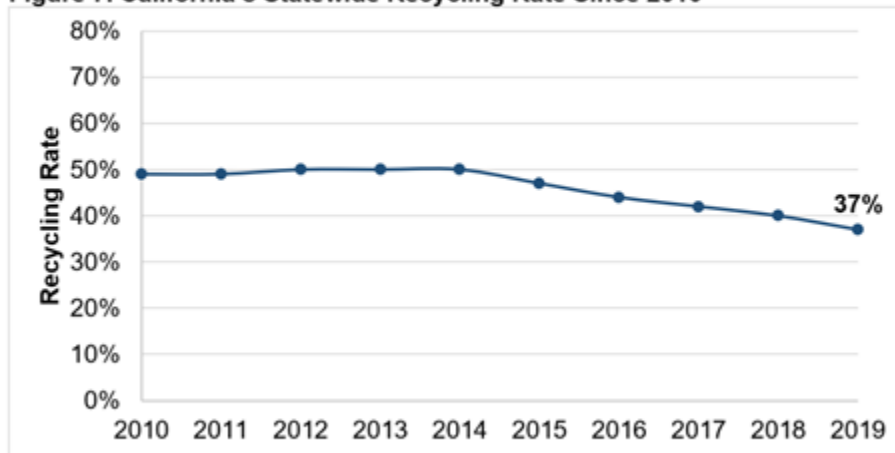
Figure 2. California's Statewide Per Resident and Total Disposal from 2010 to 2019



Source: CalRecycle Public Meeting, December 15th, 2020

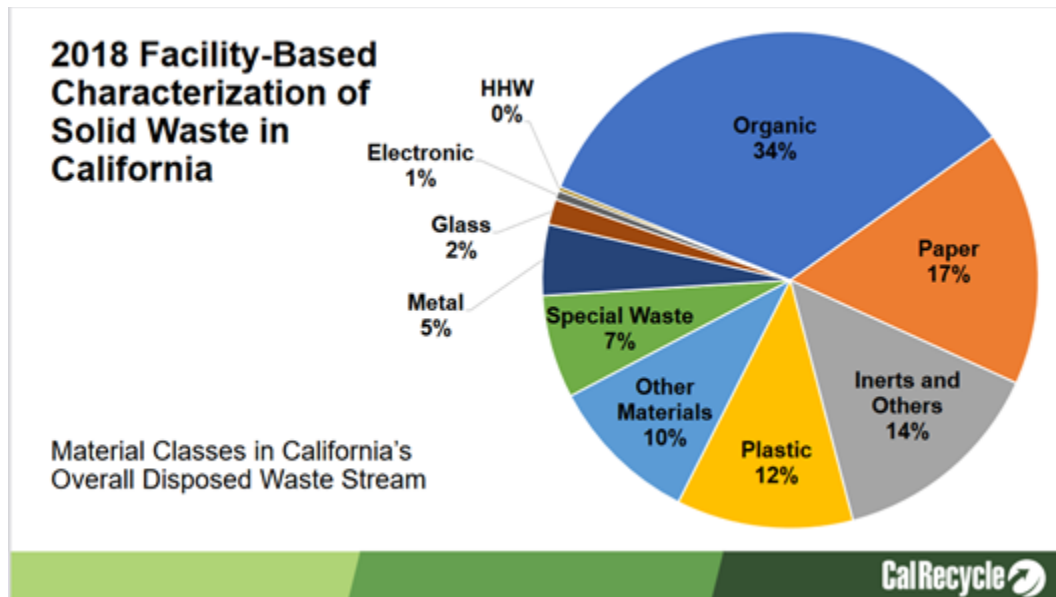
Statewide Recycling Rate

Figure 7. California's Statewide Recycling Rate Since 2010



Source: CalRecycle Public Meeting, December 15th, 2020

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 \(AB 2020, 1986\)](#), 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 established a deposit system for beverage containers, and funds collected with the purchase of motor oil, some electronic devices, and tires all provide ongoing funding for recovery of those materials respectively.

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 and 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 has established mandatory producer responsibility programs for specific products, including paints and 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, have a producer funded and operated take-back program, etc.

Investing in the State's recycling system will stimulate the economy and provide good green jobs; however, funding is needed to make this happen. The State is facing a recycling crisis with a need for robust demand for materials that are collected, sorted and recycled. This was brought to light following China's aggressive new standards that prohibited the importation of mixed bales of recyclables and set new more stringent contamination limits. In response to these new limits, 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 landfilled instead of recycled. This is directly related to the lack of fully functioning markets and the closure of nearly 1,000 recycling centers in California since 2013.

Reducing Short-Lived Climate Pollutants (SLCP) is a priority for the State, which led to the establishment of aggressive 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 goals. Organic materials make up 63% of California's waste stream, including edible food which could be recovered for human consumption, paper fibers to be recycled, and organic materials that will need to be processed at compost, anaerobic digestion (AD), or other organic materials processing facilities.

CalRecycle estimates that the total cost to implement the statewide organic waste regulations established pursuant to SB 1383 will require between 30 and 100 new facilities - not including food rescue - across the state to handle millions of tons of organic material. Fully implementing SB 1383 is projected to require nearly \$40 billion over the next decade, including a capital investment of nearly \$4 billion just 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 the loss of access to foreign

markets. Successfully achieving California’s ambitious 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 green 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 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. Despite these findings, funding has remained a complicated and elusive matter. The State has only provided \$140 million in grants and loans to develop organic materials infrastructure. Billions of dollars are needed to place the state on a trajectory to meet its aggressive - but critically needed - climate, environmental, quality of life, and health and safety goals.

Recycling should be prioritized to stimulate the economy, create green jobs, and provide cost-effective GHG emission-reduction strategies.

Legislative and Agency Responses to Commission Recommendations

July 2020 - June 2021

It was promising to see that 13 of this Commission’s 19 recommendations from December 2020 became bills or were concepts introduced into the May budget revision by the Governor’s office. Several bills including Commission-supported policies were made to be 2-year bills. One of our highest priorities, battery EPR, died in the second committee. This Commission is serious about the urgency to reduce the chances of fires in our discard systems, and improving management of batteries, devices with embedded batteries, propane cylinders and other fire hazards are essential to those efforts. At this time of drought and devastating fire seasons, fire risk should be an elevated priority for everyone. Considering these existing identified hazards to our workers and facilities, some operators face the risk of losing insurance coverage which may result in facility closures. **Again we urge legislative action to address these fire hazards.**

The bills and policies that are addressing our Commission recommendations and their status are in the [Commission Policy Recommendation Scorecard](#).

Other Proposals

Due to time constraints, the Commission was not able to complete several policies. Though some of these have been partially addressed by policy proposals. Topics of common concern which remain high priorities and will be taken up in the fall of 2021:

1. Adding more recommendations on how to reduce waste in the first place;

2. PET thermoforms being collected for recycling which requires changes to the bottle bill CRV payment system,
3. Expanding infrastructure for food rescue, managing organic materials, and developing in-state end-use markets for recyclables;
4. Clarifying proper use of the terms extended producer responsibility and product stewardship, which has been a challenge even during Commission discussions;
5. Advocating clarity of use of “circular economy”;
6. Gypsum drywall policies; and
7. Glass packaging policies.

The Commission received several comments suggesting we explore “chemical recycling technologies.” [CalRecycle staff presented to the Commission on November 4, 2020](#) on conversion technologies and what is considered recycling under the law and informed the Commission that “chemical recycling” has no current definition in the law. The Commission agreed after January 1st, 2021 to evaluate specific “chemical recycling technologies” that met the three-part test demonstrating that such operations would qualify as recycling facilities. Under [14 CCR 17402.5](#), recycling facilities only receive material that has been separated for reuse prior to receipt, that the residual amount of solid waste in the separated for reuse material shall be less than 10% of the amount of separated for reuse material received by weight, and the amount of putrescible wastes in the separated for reuse material shall be less than 1%.

Illegal Dumping and Litter

Though the Legislature did not specifically task this Recycling Commission with addressing illegal dumping, we believe litter serves as persistent testimonial regarding how our discard management policies are not yet fit to task. The illegal dumping situation is so dire in California, that the Governor mentioned it in his press conference on the 2021 budget.

Several groups have already started sharing program tools and resources litter and dumping. [CalRecycle’s Illegal Dumping Technical Advisory Committee](#) has compiled an excellent Toolbox of resources on [Prevention](#), [Abatement](#), [Cleanup](#), and [Enforcement](#).

Supervisor Nate Miley of Alameda County also had a three day workshop April 21-23, 2021 on illegal dumping education, eradication and enforcement where the Commission Chair presented about the Commission’s work and related policies that could help reduce dumping. The workshop had over 700 people attend from all demographics and regions of California and also outside of California which demonstrates this is a significant public concern and stormwater quality concern in addition to being a materials management problem.

This Commission intends to address issues about illegal dumping and persistent litter more directly in the next report.

The Commission's remaining recommendations are presented in sections by the committee that proposed them.

Market Development Recommendations

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 reindustrialize 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 [Recycling Market Development Zone Loan Program](#) and [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.

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.

The Environmental Protection Permit Reform Act of 1993 established a process allowing 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. The Commission recommends enhancements to that process under [Policy 20-07: Consolidated Permit Process Utilization and Enhancement](#).

Another recommendation is to utilize existing state permitting and business assistance more effectively under [Policy 20-08: Governor's Office of Business and Economic Development \(GO-Biz\) Enhanced Role](#).

[The California Integrated Waste Management Act \(AB 939, Sher\)](#) made all California cities, counties, and approved regional solid waste management agencies responsible for enacting plans and implementing programs to divert 25% of their solid waste by 1995 and 50% by year 2000. Later legislation mandates the 50% diversion requirement be achieved every year.

AB 939 created a supply-based recycling system supported by local ratepayers and underpinned by haulers' personnel, equipment, and facilities investments. Some recycled materials sustain high values, generating revenues in excess of processing costs. Other materials have low to no value. Export market reliance compounds pricing uncertainty with demand fluctuations, shipping bottlenecks, and inspection uncertainties.

The Commission's recommendation about plastics exports [Policy 20-10: Controls on Plastic Waste Exports](#) underscores the importance of building in-state capacity. The Commission's [Policy 20-15: What is Recyclable?](#) recommendation includes opportunities for emerging or underperforming products and materials to gain acceptance to The List through a plan or recycled content pathways.

California's recycled paper fibers remain heavily reliant on export markets. There is very limited capacity to reclaim and use cardboard and mixed paper in California. The historic dearth of paper mills precludes shifts to pulping that are occurring across the U.S. However new greenfield mills may provide opportunities to manufacture pulp for domestic or export use. California's current estimated paper export volume could support over 20 one-thousand ton per day pulping mills.

In a circular economy economic activity builds and rebuilds overall system health. The concept recognizes the importance of the economy needing to work effectively at all scales – for big and small businesses, for organizations and individuals, globally and locally.

It is based on three principles:

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems

The costs of shifting to a sustainable circular economy means moving away from reliance on rate based financial support. That 20th Century approach is not meeting 21st Century challenges. **It is highly inefficient to expect over 500 California local governments to continually adjust rates to reflect market fluctuations, or to expect that recycling collection companies will make up shortfalls.**

Recycled materials values are linked to virgin materials prices, and the current model demands that rates offset values that fail to meet local processing costs. Decoupling those links is part of the Commission recommendation to Correct Counterproductive Incentives 21-21. The Commission also adopted policy 21-24 focusing producer support for processing payments to support market's need for clean separated materials.

Policy 21-24: Producer Responsibility for Market Development

Another Commission recommendation would initiate hospitality textile recycling, with manufacturer financial support, as a manageable foray into textile end-of-life issues.

Policy 21-26: Hospitality Textile Recycling

Landfill bans and recycled content mandates are proven effective tools. Landfill bans need to be accompanied by effective programs to provide alternative recycling avenues. The Commission's Mixed C&D landfill ban proposal depends on access to processing facilities.

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

The Commission's **Policy 20-11: Carpet Stewardship and Flooring** recommendation includes banning "the disposal of separated, unsoiled carpet in California without first being sent through qualified sorters for inclusion in CARE's program".

Recycled content mandates are under discussion with drywall manufacturers, who have achieved post-consumer content rates of 25% in the Northwest compared to 4% nationally.

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.

A recycled content recommendation for fiber products to shift from virgin materials is included as:

Policy 21-25: Fiber products recycled content requirements

Recycling market development is poised to enter a new era, with new approaches to recover quality material to feed California manufacturing, sustained by values decoupled from virgin materials production. The Commission on Recycling Markets and Curbside Recycling will continue focusing on opportunities to overcome obstacles and expand recycling jobs and value-added manufacturing across the state.

The Commission is charged with issuing policy recommendations to achieve the market development goals of Public Resources Code 42005(b). The four market development goals are addressed in the following recommendations:

Policy 20-05: State Agency Buy Recycled Campaign

Policy 20-06: Recycling Market Development Zone Loan Program

Policy 20-07: Consolidated Permit Process Utilization and Enhancement

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

Policy 20-09: CalRecycle Market Development Focus

Policy 20-10: Controls on Plastic Waste Exports

In early 2021, a two-person working group consisting of Heidi Sanborn and Sara Toyoda was created from the Market Development Committee to work on C&D Waste, including

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

Increasing markets for gypsum drywall recycling was part of the C&D discussions. The intent of the work group was to engage with as many stakeholders as possible when developing the gypsum drywall policy including general contractors, C&D recyclers, gypsum processors, and manufacturers. After working with stakeholders the policy recommendations centered on source separation, minimum content, third party verification, and possibly banning drywall from landfills. Taking into account stakeholder input, only some of the recommendations were included in the initial proposal. In general, the initial proposal included source separation of clean trim scrap from job sites and 10% minimum content in post-consumer gypsum starting 2023. It escalated to separate demolition and renovated drywall scrap and a ban on drywall from landfills in 2025. The full proposal can be found in the appendix. The initial proposal was heard at the Market Development Committee on February 22 and March 22, 2021, then sent to the Full Commission.

The final proposal was heard at the Full Commission on April 7, 2021. A public comment was received from the Gypsum Association (GA) indicating they would oppose the proposal citing factors including lack of recycling infrastructure, economics, and contamination. The work group took the opportunity to work with the GA and met with them on April 15 to discuss the policy proposal. During the next month, the GA provided helpful information on the gypsum industry and recycling background. On May 18, the GA provided a new proposal for consideration that requires a 4% minimum content in post-consumer gypsum starting in 2025, with only 5 of the 6 members supporting even 4% by 2025. The full proposal is in the appendix.

There is considerable distance between the initial proposal from the work group and the GA proposal. The work group will continue to work with the GA and bring a final proposal back to the Commission. However, the overarching concerns about infrastructure and contamination that drive lower post-consumer requirements are problems that must be met by both government and industry in partnership and in a

timely manner. We would also encourage CalRecycle to work with the GA to address their needs for collection and transportation to recycling facilities and markets in order to reduce the waste drywall reaching landfills. The drywall policy is still in development because the GA has agreed to work with the work group to hopefully come to an agreement on the policy proposal for the next report.

The C&D work group also developed a policy on Full Depth Reclamation which is basically road material reuse on-site. The discussion at the Commission resulted in the Committee determining that CalTrans was already promoting this heavily and there are financial reasons for contractors to implement FDR, so we determined that we would not offer a separate policy as it is already happening. Should we hear that voluntary efforts are slowing, we will reconsider the policy for another policy report.

The shingles policy is on hold for the same reason working with the shingle manufacturers and waiting for the CalTrans research project in El Dorado to conclude. On-site roadbase reuse is already happening and the committee will bring a policy back should those efforts slow down.

The Committee discussed minimum content requirements for glass bottles that currently require 35% post consumer content if manufactured in California. According to the [Glass Packaging Institute](#) manufactured post consumer bottles are closer to 50% and most US manufactured bottles would comply with the 35% requirement. However increasing amounts of unfilled imported bottles are arriving from South America and Asia with no stated or verifiable recycled content.

Increasing post consumer glass content beyond current levels depends on developing cleaner and color separated sources of glass cullet. [Connecticut Senate Bill 1037 was adopted on June 3, 2021](#) and directs the state Department of Energy and Environmental Protection to develop a memorandum of agreement and requirements for an in-state collection and recycling system that, by 2023, will process at least 80% of the wine and liquor bottles sold in the state. The system must produce furnace-ready cullet or post-consumer glass.

The Committee will continue discussing options for bottle glass, which continues to require substantial curbside subsidies while realizing high demand for cleaner buy back material.

Regarding the carpet proposal that follows, the Commission understands that the Carpet America Recovery Effort (CARE) has the ability to limit subsidies paid to out of state processors and manufacturers. CARE may also choose to offer extra incentives to keep materials in state. CARE should structure its incentives to assure that California post-consumer carpet is meeting the needs of California processors. The Commission recommends that CalRecycle, CARE, the Carpet Stewardship Advisory Committee, and other interested parties review and consider those comments in their deliberations. CalRecycle should consider how carpet can be recovered through construction and demolition recovery programs, and how carpet recovery is addressed under the Mandatory Commercial Recycling programs.

Waste Prevention

Very few municipal and state integrated waste management resources have been focused on waste prevention. Significant public resources have, however, been directed to managing discards for recycling, composting, or disposal as well as HHW programs to maximize collection and document diversion of such materials from disposal. Waste prevention programs are rare, in part due to challenges in measuring and rewarding material and energy-efficient behaviors, and lack of program funding. The tools of discard managers - planning, permitting, facilities, collections, and contractors - are well suited to collecting and managing discarded materials, and those services are relied upon in part to protect public health. Those same discard management tools are less effective for supporting most waste-prevention businesses and activities. Waste prevention is also less frequently pursued in part due to the vast diversity of activities and systems that have waste prevention aspects.

Though waste prevention is the top priority by law and for this Commission, we have been asked to provide specific recommendations on how to improve our discard management system, but not so much about how waste could be prevented. The ambitious goals to manage 75% of organic materials without landfilling does, however, have some specific organic materials waste prevention aspects.

Food Waste Prevention

Food waste can occur at any point in the supply chain, from the field to processing, transport, purchase, storage, and rescue. In the case of food and organic materials, waste prevention activities can range from smart shopping reducing over-purchase of foodstuffs, to in-home storage and preparation, gleaning networks that harvest usable produce from orchards and fields, community events, residential and community gardens, to support organizations and facilities to store and redistribute that produce. Although such programs include collection, storage, and processing of food materials - for food rescue programs the vehicles, infrastructure, and professional networks to operate such programs are entirely unrelated to solid waste, recycling, or composting vehicles and infrastructure. While SB 1383 is driving a statewide interest in expanding food rescue, for the groups and people implementing such programs the value of delivering healthy food to families is undoubtedly a more tangible motivation than the associated reduction in food waste.

Another strategy to reduce food waste generation at the source is to provide outreach and education about methods to reduce food waste, as well as food preservation methods like soups, canning, and pickling. [CalRecycle has assembled a variety of outreach tools](#) to help promote activities that reduce food wastes in many sectors of the economy. The United Kingdom's successful 'Love Food, Hate Waste' program is worthy of study and emulation.

Furthermore, California is a part of the [Pacific Coast Collaborative \(PCC\)](#), committed to supporting businesses that are implementing measures to reduce and prevent wasted

food in the region by 50% by the year 2030 as part of the [West Coast Voluntary Agreement to Reduce Wasted Food](#) – a regional public-private partnership of local jurisdictions focused on carbon reduction.

Food Rescue

Food rescue can take place at the front-end of food production or after food has been prepared. Front-end rescue includes coordinated gleaning at orchards and in backyards, at food processing facilities and dairies, and from grocery stores and bakeries to service groups that prepare, cook, and serve food at community functions.

Food rescue programs may also collect finished food items or produce from restaurants, commercial kitchens, or bakeries and redistribute those in a tiered fashion. Food rescue hierarchies prioritize diverting food for people, then for animal feed, and only after such composting or other recovery activities.

CalRecycle's [Food Rescue Grants](#) helped start or expand food rescue in several communities, but securing future operational funding is currently a challenge in many communities, though these programs are meeting essential community needs during the COVID-19 pandemic.

[Policy 20-12: Food Recovery Policies](#)

On-Site and Community Composting

On-site composting, community composting, or backyard composting outreach programs are among the most common waste prevention programs widely implemented in California. If widely implemented, on-site composting can significantly reduce the amount of organic materials to be collected and processed. Furthermore, the potential for promoting community-wide carbon farming strategies may expand applications of finished compost made in backyards as well as by cities.

CalRecycle has webpages [describing the basics of home composting](#) and [community composting](#), but more significant efforts are needed to coordinate the promotion of these activities statewide.

California's decision to reduce methane emissions by managing most food and organic materials outside of landfills has renewed interest in ways to expand and document the benefits of food waste prevention, food rescue, facilitating the movement of organic materials to animal feed or rendering, backyard composting, and carbon farming. As waste prevention strategies, recovery professionals are once again challenged to support these programs as top priorities. Again, we note that the solid waste reduction benefits of these practices are minor or incidental to the practitioners, unless there is an incentive or requirement for reporting.

For California to reach its 75% recovery goal, waste prevention approaches should be expanded to support sustainable and energy-efficient circulation of non-organic products and materials through the economy. The following recommendations could be some initial steps to move waste prevention back from the bottom of the list to the top of the hierarchy.

Preventing Waste is Keeping Products and Materials in Circulation

In 1989, when California committed to cut its waste in half within 10 years, that choice was made in part because many communities statewide opposed expansion of either incinerators or landfills in their regions. That opposition was largely based on the understanding that most people did not want to live near such facilities. Advocates for environmental justice recognize that such facilities tend to be located adjacent to lower-income communities including higher proportions of ethnic minorities.

Our current strategies are not performing adequately - the pace of disposal in California has been steadily increasing since 2013. California communities will again soon face challenges of how to build additional recovery or disposal capacity. To state the obvious, materials are disposed of when the presence of such materials becomes an actual cost or burden. To meet California's ambitious greenhouse gas reduction and recycling goals requires that we change how materials are valued through all stages of California's economy.

In 1989, [PRC Section 40051](#) established source reduction as the top priority in the waste management hierarchy of California to achieve diversion goals of 25% by 1995 and 50% by 2000, and that were later increased to 75%. 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. The Ellen MacArthur Foundation states: ***“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.”**

As California considers how to transition from an overdependence on a linear economic model where items are used few times before wasting them - to a more circular economy where goods are designed to be durable and can be reused and repaired - we should better appreciate the diversity of businesses that already exist and foster reuse, repair, and resource conservation through waste prevention and protect and support them first.

Community Waste Prevention Infrastructure Sectors include:

- 1. Food rescue:** Gleaning and redistribution
- 2. Composting:** Community, on-site and backyard composting programs
- 3. Design to Reduce Waste:** Materials substitution for reducing hazards, LEED architecture, and xeriscaping
- 4. Thrift shops:** Consignment, resale of clothing, furniture and appliances antique shops
- 5. Vehicles:** Repair, restoration and salvage
- 6. Building Materials:** Deconstruction: salvage and resale of fixtures and materials e.g. Habitat for Humanity ReStores
- 7. Computer / Electronics:** Repair, salvage and resale e.g. Fixit Clinics
- 8. Reusable transport products:** Slip sheets, reusable pallet netting

9. **Reusable and refillable packaging:** E.g LOOP
10. **Outreach and education** Regarding waste prevention and reuse

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. The proposal that follows proposes foundational steps to assure that small appliances can be repaired.

[Policy 20-13: Right to Repair](#)

Recommendations to Improve Recycling

The Commission wants to emphasize that the closure of buyback centers and the lack of convenient redemption recycling opportunities is an ongoing existential crisis for those centers, requiring the urgent attention of the Administration and Legislature. Allowing the closure of more recycling centers is incompatible with efforts to expand recycling opportunities. **California consumers are being charged redemption fees yet being denied hundreds of millions of dollars in redemption value refunds at a time when they need those funds most to pay for basic necessities like food.**

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

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 Commission's Initial Recyclable List includes the types and forms of products and materials shown in Table 1.

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.

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's initial list represents what currently meets the criteria to be recyclable in California. The List should be reviewed and updated at least annually by the Commission and CalRecycle.

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 CA 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. We encourage all stakeholders to review the data and inform us of information that may be missing or incorrect as it is the basis for the recommendations.

[Policy 20-15: What is Recyclable?](#)

[Policy 20-16: Design for Recyclability: Plastic Container Labels and Shrink Sleeves](#)

[Policy 20-17: Design for Recyclability: Beverage Containers](#)

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

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

Recommendations to Improve Organic Materials Management

[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 components of how communities

statewide responded to requirements 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. 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.

A central duty of the Organics Committee is to help identify 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.

CalRecycle has estimated that meeting the diversion targets of SB 1383, will require almost 4 billion dollars of capital investment in this new infrastructure. To accelerate development and maximize the benefits of diverted organic discards projects, the State needs to allocate billions 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 wastewater treatment plants which is one of the most cost effective ways to digest organic discards to provide for better methane capture and conversion to electricity or renewable biogas. Aligning with current State goals, a long-term strategy to transition to full electrification should include robust new incentives for electricity and green hydrogen produced from diverted organic waste, such as a dedicated Low Carbon Fuel Standard pathway. In the short-term while this strategy is being developed, incentivizing the use of renewable natural gas (RNG) for all end uses will support the diversion of organic discards while reducing GHG emissions and pollution from the use of fossil fuels.

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. These concepts are further described in [Policy 21-28: Renewable Technology / Organic Discards to Energy Infrastructure and Market Development](#)

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 more tons of waste will need to be recycled 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.

The Organics Committee recognizes that organic materials collection, processing and marketing challenges and opportunities are different in rural Californian communities than those of more densely populated areas. The adopted [regulations](#) implementing [SB 1383](#) do provide mechanisms for delay or waiver of some requirements under SB 1383 in rural areas. In the coming year, the Organics Committee anticipates additional discussion and policy proposals related to organic materials management in rural areas, specifically:

- Regional planning efforts to develop required organic materials processing capacity should be encouraged in rural areas.
- Innovative programs for smaller-scale compost production and application on farms and ranches should be encouraged to the extent practical as the application of finished compost as a carbon-sequestration strategy - with appropriate controls regarding potential spread of contaminants such as non-degradable materials or invasive species or pathogens.
- Some rural communities that do not already have universal collection are questioning the presumption that universal collection and organic materials processing in rural areas is the most cost-effective way to achieve a net reduction of greenhouse gas emissions. This presumption warrants further analysis, and the state should assess the potential for demonstrations of decentralized and distributed organic materials recycling strategies to expand recovery of organic discards and thereby reduce greenhouse gas emissions in rural areas.

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.

The recommendations that follow were reviewed and recommended through the Organics Committee as initial steps to address these considerable challenges.

[Combined Policies 20-03/04: Precautionary Principle & Problem Products](#)

[Policy 20-19: Compostable Products Certification and Approval for Composting or Anaerobic Digestion](#)

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

[Policy 21-29: Carbon Farming](#)

Labelling & Media Recommendations

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 Labeling and Media Committee had four main goals. In addition to the primary goal of establishing a labeling system, two goals were related to working with the Recycling Committee and Organics Committees on identifying top contaminants in those respective curbside bins. Those efforts identified batteries and plastic film as top contaminants, and in response Committee helped develop [Policy 20-16: Design for Recyclability - Plastic Container Labels and Shrink Sleeves](#) and [Policy 20-18: Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling](#), to help address plastic film contamination from the waste stream. Batteries were addressed in a separate EPR policy proposal for Household Hazardous Waste.

The Committee's fourth goal was to interface 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 labelling products and curbside bins to drastically reduce contamination cost-effectively. It clarifies appropriate product labelling to stop the worst and most costly types of curbside recycling and composting contaminants.

The policy recommendation 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](#).

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

Policy 20-18: Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling

Policy 21-30: Label System for Products and Post-Consumer Management

List of Policies

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

[Policy 20-02: Transition from Single-Use Propane Cylinders to Refillable](#)

[Combined Policies 20-03/04: Precautionary Principle & Problem Products](#)

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

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

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

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

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

[Policy 20-10: Controls on Plastic Waste Exports](#)

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

[Policy 20-12: Food Recovery Policies](#)

[Policy 20-13: Right to Repair](#)

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

[Policy 20-15: What is Recyclable?](#)

[Policy 20-16: Design for Recyclability - Plastic Container Labels and Shrink Sleeves](#)

[Policy 20-17: Design for Recyclability - Beverage Containers](#)

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

[Policy 20-19: Compostable Products Certification and Approval for Composting or Anaerobic Digestion](#)

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

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

[Policy 21-22: Adding Returnable Bottles into the California Bottle Bill – No Crushing Process](#)

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

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

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

[Policy 21-26: Hospitality Textile Recycling](#)

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

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

[Policy Proposal 21-29: Carbon Farming](#)

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

[Commission Policy Recommendations Scorecard](#)

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

Date(s) before full Commission : December 2, 2020 and December 16, 2020

Primary Author(s): Commissioners Ward and Sanborn, two-person work group

Adopted: December 18, 2020

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 general 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 included in the materials disposed. 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.

HHW, while small in volume and still not yet called “diversion” because while some material is trashed, it is illegal to dispose of in the trash. HHW creates a lot of problems including hazards to those in the waste management system when they are improperly disposed of in the trash, organic materials and recycling, and very high costs to manage properly. The cost to manage HHW 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, and it's saving local governments millions of dollars they previously spent 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 which was wildly underfunded and only 15 of 33 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 in light of 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 tpy) 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.

In summary, 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.

Other products that currently pose significant risk of fires when discarded include marine flares and small propane containers.

Purpose(s): The purposes of this initiative are:

- To eliminate the mismanagement of hazardous home-generated waste (HHW)
- To ensure HHW management is fully funded
- To reduce the costs to local and state government for management HHW
- To reduce the hazard to the waste management workers when they are disposed of improperly
- 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

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

Possible 2021 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): That the state legislature pass an EPR Framework bill 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 2022.

As an urgent measure to reduce fire hazards, legislation should also be passed in 2021 to establish an extended producer responsibility program for all batteries, with particular emphasis on reducing fire and explosive hazards at all stages of distribution and recovery and establishing a robust identification system to facilitate separation of post-consumer batteries by chemistry.

The EPR program developed for batteries and subsequently identified products or categories of products will address goals, guiding principles, definitions, roles and responsibilities, governance, products or the product categories included, and how the program's effectiveness will be measured, reported, or improved over time. We urge the oversight agency to ensure that products selected for EPR programs are prioritized by immediate impacts to safety and cost in the industry so 1 lb. propane gas cylinders is one which has a separate proposal due to its not pure EPR approach and we urge that marine flares are prioritized in the next report due to the total lack of infrastructure to accept them and the extremely high cost to manage.

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.
- **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.

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

Date(s) before full Commission: December 2, 2020 and December 16, 2020

Primary Authors: Commissioners Ward and Sanborn, two-person workgroup

Adopted: December 18, 2020, revised March 3, 2021

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, packaging and freight accounts for more than 80% of the retail cost of a single-use tank.

Every year in North America, 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. propane 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 5-gallon BBQ tanks and 7-gallon forklift fuel tanks. The public is trained to refill BBQ tanks and can do the same with 1 lb. cylinders in California. The cost of the 1 lb. gas cylinders have 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 cylinder and freighting account for 80% of the product cost - the fuel costs approximately 25 cents. Costs to dispose of the 1lb. propane 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 conducting outreach/exchange events to get more reusables 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 1 lb. propane gas cylinders statewide at every company owned store that has propane. 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 1 lb. 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

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 2021 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 2020 legislative priority.

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.

Proposal(s):

- Establish an EPR system by January 1, 2024 for single-use 1 lb. propane gas cylinders that are sold in CA (and are not legally refillable) by January 1, 2023. Single-use 1 lb. gas cylinders must be labelled as to where the public can find refillables for sale and refilling.
- Refillable 1 lb. gas cylinders on the market before January 1, 2023 are exempt from the overall EPR program but must be labeled as to where cylinders can be refilled or properly discarded at end-of-life.

Related Issues:

Dangers in the Waste Stream

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**

© copyright National Stewardship Action Council, 2020



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



© copyright National Stewardship Action Council, 2020



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

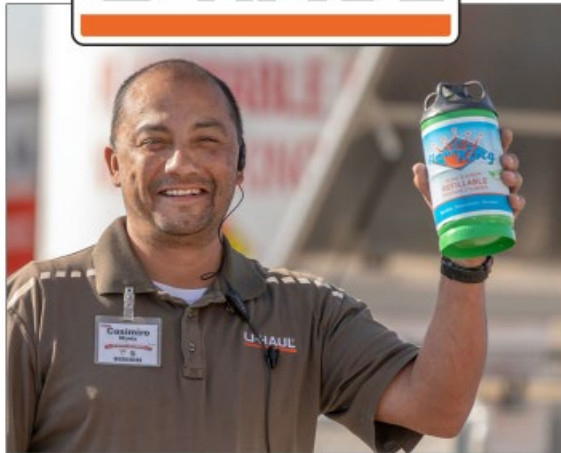


© copyright National Stewardship Action Council, 2020

U-Haul Launch



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



© copyright National Stewardship Action Council, 2020

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*

© copyright National Stewardship Action Council, 2020

RFYF in the U.S.



© copyright National Stewardship Action Council, 2020

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

Committee: Organics

Dates before full Commission: June 2, 2021 - Approved 2nd Reading

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 2021 Legislative Priority? Yes, 2021 Legislative Priority. 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.
 - 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:
 - 1) 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,
 - 2) 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:
 - i. swiftly resolve the operational or environmental challenge associated with that product or material application, potentially including
 - a. 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,
 - c. 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:
 - 1. Fund their real-world test certifying their product breaks down to compost in CA-benchmark facilities.
 - 2. Certify their product is only made of natural plant, silk, or hair fiber with no other additives.
 - 3. 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:
 - 1. Evaluate if the item meets the State definition of recyclable or compostable, including not containing the compounds identified in (1).
 - 2. 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.
 - 3. 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.
5. The legislature should enact legislation prohibiting the distribution, sale, of food packaging and food containers containing any Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS).
6. 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.
7. 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
 - threatening to human life or health, or
 - serious and effectively irreversible, or
 - inequitable to present or future generations, or
 - 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 20-05: State Agency Buy Recycled Campaign

Committee: Market Development

Date(s) before full Commission: October 7, 2020 and October 2, 2020

Primary Author(s): Commissioners Sanborn and Davis

Adopted: December 18, 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 20-06: Recycling Market Development Zone Loan Program

Committee: Market Development

Date(s) before full Commission: November 18, 2020 and October 21, 2020

Primary Author(s): Commissioners Davis and Medrano

Adopted: December 18, 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 \$2 million 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 (SMIF) 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 Zone Administrators (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:
 - Accelerate the loan approval process within 30 days of CalRecycle receiving a complete loan application.
 - Refer potential projects immediately to CalRecycle loan staff for eligibility determination and initial intake.
 - Create an online loan application form to be processed by loan staff.
 - 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 the 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 20-07: Consolidated Permit Process Utilization and Enhancement

Committee: Market Development then Organics

Dates before full Commission: December 16, 2020 and December 18, 2020

Primary Authors: Commissioners Davis, Kalpakoff, and Oseguera

Adopted: December 18, 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 post-consumer 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 21st 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 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, and 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 organic materials 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 organic materials 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 organic materials 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 20-08: Governor's Office of Business and Economic Development (GO-Biz) Enhanced Role

Committee: Market Development

Dates before full Commission: November 18, 2020 and October 21, 2020

Primary Authors: Commissioners Davis and Sanborn

Adopted: December 18, 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.

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 organic materials 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 organic materials management operations.

1. Assign a dedicated GOBiz workgroup for recycling manufacturing and organic materials management projects
2. Designate a GOBiz liaison for Essential/Significant projects under CalEPA consolidated permitting
3. Include reuse, repair, organic materials, 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 20-09: CalRecycle Market Development Focus

Committee: Market Development

Dates before full Commission: November 18, 2020 and October 21, 2020

Primary Authors: Commissioners Davis and Medrano

Adopted: 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, organic materials, 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, and 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 20-10: Controls on Plastic Waste Exports

Dates before full Commission: December 16, 2020 and December 18, 2020

Primary Authors: Commissioners Valle and Lapis, with edits from Commissioner Potashner

Adopted: December 18, 2020

Background:

On January 1, 2021, new global rules placing trade controls on plastic waste for 188 potential US trading partners will go into effect. These rules require that plastic waste which is not sorted and cleaned to single polymers without significant contamination will fall within the Basel Convention's Annex II, and as such will only be allowed for export to other Basel Parties, when there are assurances of environmentally sound management, and only if the recipient Basel Party is first notified by the exporting country and receives their consent. Further, and most important for California, as part of the United States, the 188 Basel Parties will not be able to legally receive these newly controlled wastes from the United States at all due to the fact that the United States is not Party to the Convention.

These rules were adopted globally by a consensus of Basel Parties to ensure that problematic and difficult to recycle plastic scrap trade is fully transparent and proceeds only to facilities and countries that can ensure environmentally sound management.

However, as long as the United States is not a Party to the Basel Convention, it is not known whether the US government will move to prosecute such exports, which are not technically illegal under US law, but nevertheless violate the laws of importing countries.

Meanwhile, California will be in the eye of the storm as it currently leads the nation in export volumes from its ports, of these types of mixed/contaminated bales of plastic, and paper mixed with plastic, most of which moves to Southeast Asia. Many of these Asian facilities have been revealed to utilize substandard processing methods, with considerable amounts of the waste going unrecycled, dumped and burned resulting in pollution and health impacts.

Already, even before the new rules enter into force, many countries such as Malaysia, Thailand and Indonesia are returning shipments of mixed and contaminated scrap containing scrap plastics, and setting new import restrictions. California must move quickly if it is to avoid being embroiled in an international waste trade scandal which will increasingly be exposed as shipments violating the laws of the importing Basel Party countries are seized or returned with much fanfare back to California ports.

Purpose: The recommendations below provide a remedy consistent with the US Constitution's Commerce clause, the California Unfair Business Statute, as well as Basel Convention's new trade rules, applicable to California's overseas trading partners. They require, as does the Basel Convention, full transparency as to the final destination of the wastes in the recipient country. Destination countries require this of Basel Parties that

export to them, and indeed California ratepayers should have the right to know where their waste, once collected, ends up and that it is not going to damage the environment anywhere in the world.

Further, the recommendations intend that plastic waste collection and management entities including municipalities, waste management companies, and their brokers, operating within the State of California only engage in plastic waste trade which will not violate the laws of the importing country. These recommendations call for an end to diversion credits for recycling overseas unless the recycling can be demonstrated to be lawful in all relevant global jurisdictions.

Finally, the United States is the only developed country in the world that has not ratified the Basel Convention and such ratification is long overdue. The state legislature should play a role in encouraging this important outcome.

Note: Exports of plastics waste covered under Basel listings (A3210 or Y48) which will not be allowed in accordance with this statute will include a) any exports to Basel Parties with the exception of Canada and Mexico, as long as the US remains a non-Basel Party, or b) if/when the US becomes a Basel Party, any exports which do not proceed in accordance with the Basel Convention's obligations. A list of Basel Parties is found [here](#).

Recommendation #1: Full Transparency on Plastic Waste Destinations

CalRecycle should increase transparency of information reported pursuant to the new Recycling and Disposal Facility Reporting (AB 901) to insure that all residents have access to clear information on where their recyclable materials are sent, including the names and locations of the specific facilities where material is sent once it leaves the United States, even if it is being handled by a broker.

If CalRecycle determines that information reported through RDRS indicates that a broker is exporting material in violation of the laws of the importing country, this will violate Recommendation #1 above, and CalRecycle shall notify all recycling facilities and local jurisdictions of this and the fact that this broker's activities are likely to violate importing country laws.

Recommendation #2: Elimination of Diversion Credits for Mixed Plastics Exports

The export of mixed plastics (except for bales of sorted single resin materials or mixed bales of HDPE, PET and Polypropylene that have manufacturing end markets) should be considered disposal for purposes of determining compliance with a jurisdiction's per capita disposal reduction targets. Mixed materials exported to other countries cannot be verifiably proven to have been recycled, and as such, should not count as being diverted. Since all of these mixed materials do not have clear recycling markets, and have been shown to have extremely high residual rates, the likely disposal of these exported materials should not be incentivized over any other form of disposal.

Recommendation #3: California should encourage Federal action on Basel Convention Ratification

The legislature shall pass a resolution to encourage Congress to ratify the Basel Convention at the earliest possible date. Further, after the adoption of the resolution, the

state should direct its federal advocates to work with the California congressional delegation to advocate for this change.

Policy 20-11: Carpet Stewardship and Flooring

Committee: Market Development

Dates before full Commission: November 18, 2020, October 21, 2020, and December 16, 2020

Primary Authors: Commissioners Davis and 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 of 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 4th 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 the 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 Chemical Profile for Carpeting](#).

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 the Department 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, and 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 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
 - a. 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.
 - b. 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
 - a. 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 CDFR to promote voluntary standards for food distributors and retailers to adopt the following date labels:
 - i. "BEST if Used by" or "BEST if Frozen by" to indicate freshness
 - ii. "USE by" or "USE or Freeze by" to indicate safety
 - iii. No use of consumer facing "sell-by" dates

- iv. 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.
 - b. 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.
 - c. 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
 - a. 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
 - a. Expand food prevention infrastructure 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.
 - b. 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.
 - c. 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
 - a. The legislature should incentivize corporations to reach their Corporate Social Responsibility goals through creative partnerships with food recovery organizations.
 - i. 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
 - a. 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.

- b. 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.
 - c. 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.
- a. 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.
 - b. 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

Dates before full Commission: December 16, 2020

Primary Authors: Commissioners Ward and Schneider

Adopted: December 18, 2020

Background: Right to Repair reforms, such as Assemblymember Susan Eggman's AB 1163 from last session, require manufacturers to provide access to repair information and software, and to sell spare parts and any required tools on fair and reasonable terms.

When manufacturers restrict access to spare parts and replacement parts, diagnostic tools, service manuals, and similar information, such actions ultimately have the effect that such items are landfilled, recycled, e-wasted or otherwise discarded at higher frequency and tonnages than necessary.

Electronic waste is among the fastest growing portions of California's waste stream. Although it currently makes up 2% of the waste stream, it comprises 70% of its toxicity. That waste represents an unnecessary burden on, and fire risk to California's waste systems.

With Right to Repair legislation in place, individuals and independent repair shops would have the ability to keep products in use longer. Currently, manufacturers design products that are difficult or impossible to repair without damaging the product, often forcing consumers to buy new products and discard old ones. For example: many of these products contain glued-in batteries, making them challenging and costly to recycle, or use proprietary or unusual screws that impair the ability to simply open them up. Other products are built with software locks that prevent the device from working even after it has been fixed unless the manufacturer resets or unlocks it.

Furthermore, asserting a Digital Right to Repair is becoming important because as things increasingly become a combination of hardware and software; being able to address a mechanical or electrical failure in a device may no longer be sufficient to affect repair.

Under existing law, every manufacturer making an express warranty with respect to an electronic or appliance product, including, among others, televisions, radios, audio or video recording equipment, major home appliances, antennas, and rotators, with a wholesale price to the retailer of not less than \$50 nor more than \$99.99 is required to make available to service and repair facilities sufficient service literature and functional parts to effect the repair of the product for at least 3 years after the date a product model or type was manufactured, regardless of whether the 3-year period exceeds the warranty period for the product.

Existing law also requires every manufacturer making an express warranty with respect to an electronic or appliance product, as described above, with a wholesale price to the retailer of \$100 or more, to make available to service and repair facilities sufficient service literature and functional parts to effect the repair of the product for at least 7

years after the date a product model or type was manufactured, regardless of whether the 7-year period exceeds the warranty period for the product.

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 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.

Would this policy proposal require legislation, or interaction with an agency other than CalRecycle? Legislation is needed to establish Right to Repair, and this proposal comes from AB 1163 (Eggman) copied below.

Possible 2021 Legislative Priority? Yes.

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

No.

Proposal(s): The following is the text from AB 1163 (Eggman):

SECTION 1.

Section 1793.03 of the Civil Code is amended to read:

1793.03.

(a)Every manufacturer making an express warranty with respect to equipment or other electronic or appliance products described in subdivision (h), (i), (j), (k), (l), (m), (n), or (o) of Section 9801 of the Business and Professions Code, with a wholesale price to the retailer of not less than fifty dollars (\$50) and not more than ninety-nine dollars and ninety-nine cents (\$99.99), shall make available to owners of the equipment or products, to service and repair facilities, and to service dealers, as defined in subdivision (f) of

Section 9801 of the Business and Professions Code, sufficient service literature, at no charge, and functional parts, on fair and reasonable terms, to effect the repair of a product for at least three years after the date a product model or type was manufactured, regardless of whether the three-year period exceeds the warranty period for the product.

(b) Every manufacturer making an express warranty with respect to equipment or other electronic or appliance products described in subdivision (h), (i), (j), (k), (l), (m), (n), or (o) of Section 9801 of the Business and Professions Code, with a wholesale price to the retailer of one hundred dollars (\$100) or more, shall make available to owners of the equipment or products, to service and repair facilities, and to service dealers, as defined in subdivision (f) of Section 9801 of the Business and Professions Code, sufficient service literature, at no charge, and functional parts, on fair and reasonable terms, to effect the repair of a product for at least seven years after the date a product model or type was manufactured, regardless of whether the seven-year period exceeds the warranty period for the product.

(c) This section shall not be construed to require a manufacturer to divulge a trade secret.

(d) For the purposes of this section:

(1) "Fair and reasonable terms" means that the costs and terms, including convenience of delivery, and including rights of use, are equivalent to what is offered by the original equipment or other electronic or appliance manufacturer to an authorized service dealer.

(2) "Trade secret" means anything tangible or intangible or electronically stored or kept that constitutes, represents, evidences, or records intellectual property including secret or confidentially held designs, processes, procedures, formulas, inventions or improvements, secrets of confidentially held scientific, technical, merchandising, production, financial, business, or management information, or anything within the definition of Section 1839(3) of Title 18 of the United States Code.

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

Committee: Recycling

Primary Author: Commissioner Donlevy

Date(s) before full Commission: October 2, 2020 and November 4, 2020

Adopted: December 18, 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.

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% recycling rate. Since its enactment, the BCRP has recycled over 400 billion beverage containers through an extensive collection infrastructure and achieved a 76% 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 stores 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.

(1) 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% 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.

Policy 20-15: What is Recyclable?

Committee: Recycling

Primary Authors: Commissioners Donlevy and Lapis

Dat approved by Commission: June 2, 2021

- The policy topics have been discussed at the following meetings:

2020 Full Commission:

- October 7, 2020 – informational review & discussion only
- December 16th, 2020

2021 Recycling Committee

- March 12, 2021
- May 14, 2021

2021 Full Commission

- March 3, 2021
- April 21, 2021
- May 5, 2021
- May 17, 2021 - Approved First Reading

Purpose(s): 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. 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 Commission’s Initial Recyclable List includes the types and forms of products and materials shown in Table 1.

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.

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's initial list represents what currently meets the criteria to be recyclable in California. The List should be reviewed and updated at least annually by the Commission and CalRecycle.

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 CA Statewide Recyclable List.

Would this policy proposal require legislation, or interaction with an agency other than CalRecycle? No legislation is required to publish the Commission's initial list, but a statutory change would be required for the Director of CalRecycle to create the Statewide Recyclable List.

Possible 2021 Legislative Priority? Yes. Implementation of the policy will help improve material quality and product design, reduce waste and contamination of material collected for recycling, reduce greenhouse gases, and reduce environmental damage caused by shipping non-recyclable material to other destinations that may have lower environmental and worker safety requirements than California. This policy will also help ensure a better supply of recyclable material for end users, create financially sustainable recycling markets and demand for California material, and help companies looking for a steady supply of material to invest in recycling and reprocessing facilities in California.

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

CalRecycle will be charged with maintaining the CA Statewide Recyclable List of "recyclable" products and materials and collecting information from curbside processing facilities. These tasks would require both one-time and ongoing costs.

The responsibility for identifying recyclable products and materials to be included on the statewide list will be vested in CalRecycle. The Director of CalRecycle will review and have final approval for all items on the Statewide Recyclable List on an annual basis. The Statewide Commission on Curbside Recycling and Market Development will continue identifying products and materials for consideration by CalRecycle.

Proposal(s):

Regulatory Basis: The Statewide Commission on Curbside Recycling and Markets Development is charged with identifying products that are recyclable or compostable, as defined by [PRC section 42370.2](#), and regularly collected in curbside collection recycling programs ([PRC 42005.5.b.1.B](#))

The Sustainable Packaging for the State of California Act of 2018 ([Public Resources Code 42370.2](#)) defines the six criteria for determining whether food service packaging in California is “recyclable.” Table 1 shows the seven criteria used by the Commission to determine recyclability, the numerical standards, and the sources of data employed to make initial recommendations and are to be employed in the future.

Qualification Process: A reliable process with quantified and verified metrics, based on information reported to CalRecycle by curbside sorting facilities, must be employed to determine whether a product or material meets the minimum standard for each criteria. A traceable account with original facility data sources must be provided to prove claims. Data may be no older than 1 year when submitted.

Recommended Statewide List: The Commission employed the following source of information to determine the recommended products and materials to be on the Initial CA Statewide Recyclable List (Shown in Table 2): The California Recyclability Screening Spreadsheet, including a Survey of Item Acceptance at California’s of 76 California Material Recovery Facilities (MRF Survey), was compiled by Committee members, posted for review in the public domain and fact-checked with Commission members. . The MRF Survey provides data for Criteria #1 and #2. Criteria #3 was confirmed using CalRecycle’s Recycling and Disposal Reporting System (RDRS). The Spreadsheet captures market and external information for Criteria #4, #5, and #6 [CA Recyclability Screening](#)

CalRecycle will collect data reported by facilities actively separating curbside material. That data will be employed to verify the number of MRFs that collect, segregate, bale, and sell specific products and materials meeting market specifications. CalRecycle may use additional verified data that quantifies and supports individual material types that meet the criteria.

Local Additions Allowed on Acceptance Lists: Additional items may be added to local recycling collection acceptance lists by individual cities, counties, or solid waste service providers so long as the programs are collecting, segregating, and marketing the individual material grades to a reclaimer that will reprocess and convert the material into feedstock for new products.

Pathway to and Maintaining Acceptance on CA Statewide Recyclable List: Manufacturers and other stakeholders are encouraged to develop and maintain a statewide recycling market for California products and materials by committing to purchasing and processing material collected at MRFs and meeting the 75% acceptance and sortation criteria set in Table 1. A pathway to gain acceptance on the CA Statewide Recyclable List is shown in Table 3. The pathway is focused on separation by Curbside MRFs into individual bales/grades because it is the key indicator of product recyclability, gauging market demand as measured by data provided to CalRecycle from other sources (including producers).

For products achieving 60% acceptance and sortation, or for existing items falling between 60 to 75% acceptance and sortation, a manufacturer or other stakeholder may submit evidence showing that binding agreements are in place to ensure short term future compliance by achieving 75% acceptance, sorting, and reporting to CalRecycle.

CalRecycle may, based on the evidence provided, allow a product to be a “Conditional Acceptance” product that is temporarily included or remains on the California List of recyclable items for four subsequent, consecutive quarters to allow time for the CalRecycle system to report acceptance and sorting rates. After the initial date of Conditional Acceptance, the product must achieve 75% sortation in two of four of the subsequent, consecutive quarters to gain Full Acceptance. If Full Acceptance isn’t achieved, the product is removed from Conditional Acceptance for four quarters (one year) and may reapply for Conditional Acceptance after one year. A product may not remain Conditionally Accepted for more than four consecutive reporting periods (one year).

Pursuant to the long-standing guidance from the Federal Trade Commission (FTC), a baseline for recyclability is a prerequisite that “recycling facilities are available to a substantial majority of consumers or communities where the item is sold,” which the FTC defines as at least 60%. Additionally, a producer or group of producers whose product type is accepted and sorted by 40% of California curbside MRFs may submit a plan to CalRecycle detailing how and by what date the product type would achieve the 60% threshold. CalRecycle would review the plan to determine if the threshold criteria would be met, and may require changes as conditions of approval. The plan must include verifiable data showing the current level of acceptance and sortation by California curbside MRFs as well as specific steps to achieve the 60% threshold. The product would be Conditionally Accepted so long as it meets quarterly milestones to achieve 60% acceptance at which time it would follow the 60% to 75% Conditional Acceptance route.

Product types that are subject to a California minimum recycled content requirement also may submit a plan for consideration to become Conditionally Accepted.

Applicants for Conditional Acceptance must file an application and pay CalRecycle’s review costs.

Labeling: California's Environmental Representations Law ([Business and Professions Code Sections 17580](#) and 17580.5) currently prohibit the use of certain terms, including “recycled” and “recyclable,” if they are in violation of the Federal Trade Commission’s Green Guides. We suggest that this be expanded to include use of “chasing arrows” and go beyond the requirements of the Green Guides to ensure that only products that are truly recyclable can make this environmental claim.

Schedule for Implementation: The time required for implementation will take two years for cities and hauling companies to re-work franchise and collection agreements to modify lists of acceptable items.

Related Issues: None

Table 1: Quantified Metrics for California Statewide Recyclability Criteria

Criteria	Data Source & Evidence Required	Minimum Statewide “Recyclable” Threshold
1 – Accepted in Local Recycling Programs	Public survey of local recycling programs.	Item accepted by local recycling programs serving a substantial majority (60%) of consumers or communities where the item is sold.
2 – Accepted by Curbside Recycling Service Providers	Public survey of All CA’s Material Recovery Facilities (MRFs). ¹	Accepted by 75% of MRFs or a demonstration of 75% acceptance.
3 – Separated by MRFs into Individual Bales	Reports submitted to CalRecycle on a quarterly basis identify material sorted and shipped by curbside material processing facilities.	Separated and reported to CalRecycle by 75% of MRFs or demonstration that a majority of facilities have agreements to segregate individual material types.
4 – Processed into a manufacturing input	Identification of sufficient domestic or Basel Convention-approved processors with capacity to process the collected material. Listing of material processors, location and capacity required.	Processing capacity for 75% of the product waste generated in California.
5 – Used to make new products	Evidence that the processors sell material to make new products, not to make fuel, burn for energy or other non-manufacturing uses.	Evidence for the processors in #4.
6 – Has market demand & maintains value	One year of data showing sufficient and consistent market value for product waste across the state. Intermittent or seasonal market demand is not acceptable. In lieu of one year of data, proof of new long-term contract offers made statewide will be considered.	Sufficient value for material should be equal or greater than processing cost minus disposal cost. Sufficient value is currently about 3-4 cents/lb. based on statewide averages. ²
7 – Not toxic & does not contaminate product	Products and/or additives that have a negative impact on human health or the environment are prohibited.	Does this item contaminate other material bales and hurt their values?

¹ October 2020: Current MRF count in California is 76. It is recommended that CalRecycle maintain a current list of MRFs for use in the qualification process.

² Based on statewide MRF processing cost of \$120/ton and [landfill cost of \\$45/ton \(CalRecycle 2015 data\)](#), the material value must be at least \$75/ton or 3.75 cents/lb.

Table 2: California (CA) Statewide Recyclable List

15 Consumer Item types met the criteria requirements across the state and are recyclable statewide:

Paper Products (8):

1. Mail
2. Paper Mailing Pouches
3. Kraft Bags
4. Magazines
5. Newspaper
6. OCC (old corrugated cardboard)
7. Home Office Paper
8. Paperboard Boxes (e.g. cereal, tissue, not coated)

Glass (2):

9. Bottles
10. Jars

Metal (2):

11. Aluminum cans
12. Steel cans

Plastic (3):

13. #1 PET Bottles (Screw-type narrow neck tops – no non-recyclable shrink sleeves or other non-recyclable components)
14. #2 HDPE Bottles – Natural (Narrow necks – includes jugs – no non-recyclable shrink sleeves or other non-recyclable components)
15. #2 HDPE Bottles – Color (Narrow necks – includes jugs – no non-recyclable shrink sleeves or other non-recyclable components)

Table 3: New Product Fact-Based Pathway to CA Statewide Recyclable List

Stage	Criteria 3: Separated by MRFs into Individual Bales	Data Source & Evidence Required
Not eligible to be on CA Statewide Recyclable List	Separated and reported to CalRecycle by less than 60% of curbside MRFs for four (4) of six (6) consecutive quarters.	Reports submitted to CalRecycle, on a quarterly basis, identify material sorted and shipped by curbside material processing facilities.
Conditional Acceptance on CA Statewide Recyclable List	<p>Separated and reported to CalRecycle by at least 60% of curbside MRFs for three (3) consecutive quarters and demonstration that an additional 15% of Material Recovery Facilities (MRF's) materials have agreements to segregate material within 12 months.</p> <p>Approval of plan moving from 40% to 60% MRF separation</p> <p>Inclusion in California minimum content requirement</p>	Reports submitted to CalRecycle, on a quarterly basis, identify material sorted and shipped by curbside material processing facilities.
Full Acceptance on CA Statewide Recyclable List	Separated and reported to CalRecycle by 75% of curbside MRFs	Reports submitted to CalRecycle, on a quarterly basis, identify material sorted and shipped by curbside material processing facilities.
Removal from CA Statewide Recyclable List	<p>Less than 60% of MRFs report separating material for three (3) of six (6) consecutive quarters as determined by CalRecycle.</p> <p>Failure to implement plan to move from 40% separation</p>	Reports submitted to CalRecycle, on a quarterly basis, identify material sorted and shipped by curbside material processing facilities.

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

Committee: Recycling

Date(s) before full Commission: November 4, 2020

Primary Author(s): Commissioners Dell and Lapis

Adopted: 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 that 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. 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 are 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. 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



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.

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.

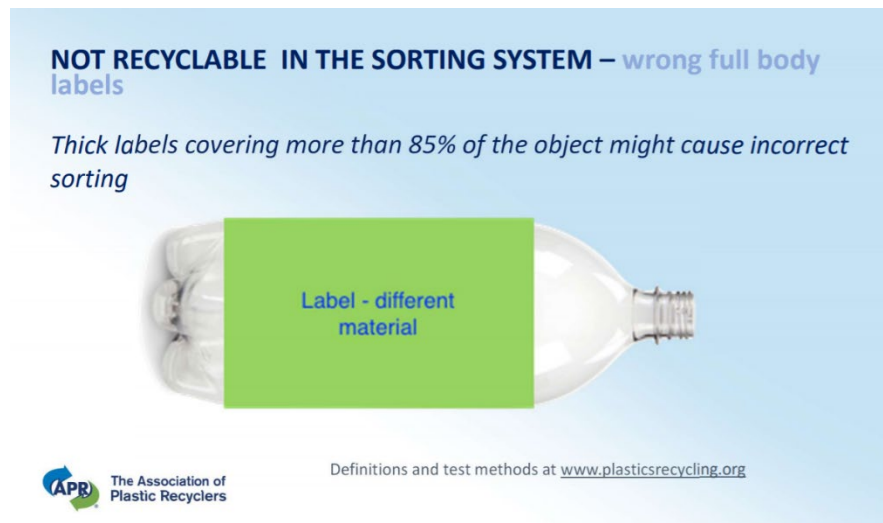
PETG and PVC shrink sleeves are harmful to PET bottle recyclers because the PETG and PVC shrink sleeves cannot be separated in mechanical recycling water “sink-float” tanks. PETG and PVC materials have a specific gravity greater than one, so they sink along with PET (1.38 sp. gr.) in the tank. But the 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. 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

Use of full body shrink sleeves is prohibited in the Design® Guides published by the Association of Plastic Recyclers (APR) and Walmart 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



NAPCOR is the trade association for the PET Packaging Industry in the United States, Canada and Mexico. 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.” 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 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. 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. 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. “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.” 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, 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

Date(s) before full Commission: November 4, 2020

Primary Author(s): Commissioners Dell and 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 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. In a 2019 study carried out by PRCC in California, 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, 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.”

Legal Precedence & Company Compliance on Clear PET Bottles: South Korea has enacted a legal requirement for clear PET bottles to improve recycling. 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.

- **Japan:** In 2001 when the recycling rate was 31%, beverage companies voluntarily stopped production of colored plastic bottles to facilitate recycling. This change has contributed to the increase in recycling of plastic bottles in Japan to 85%.
- **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.

Figure 4 shows colored plastic PET bottles sold in California. Figure 5 shows the same products sold in clear PET bottles in Japan.

Figure 4: Colored Plastic PET Bottles Sold in California



Figure 5: 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. 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.**"

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. APR notes that contamination in the recycling stream by poor package design impacts recyclers and the brands themselves. APR identifies metal components as top problematic elements for PET recycling.

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. 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.

Policy 20-18: Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling

Committee: Recycling

Dates before full Commission: December 16, 2020

Primary Authors: Commissioners Dell and Donlevy

Adopted: December 18, 2020

Background: Flexible plastic bags, 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 and clogging 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), 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.

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

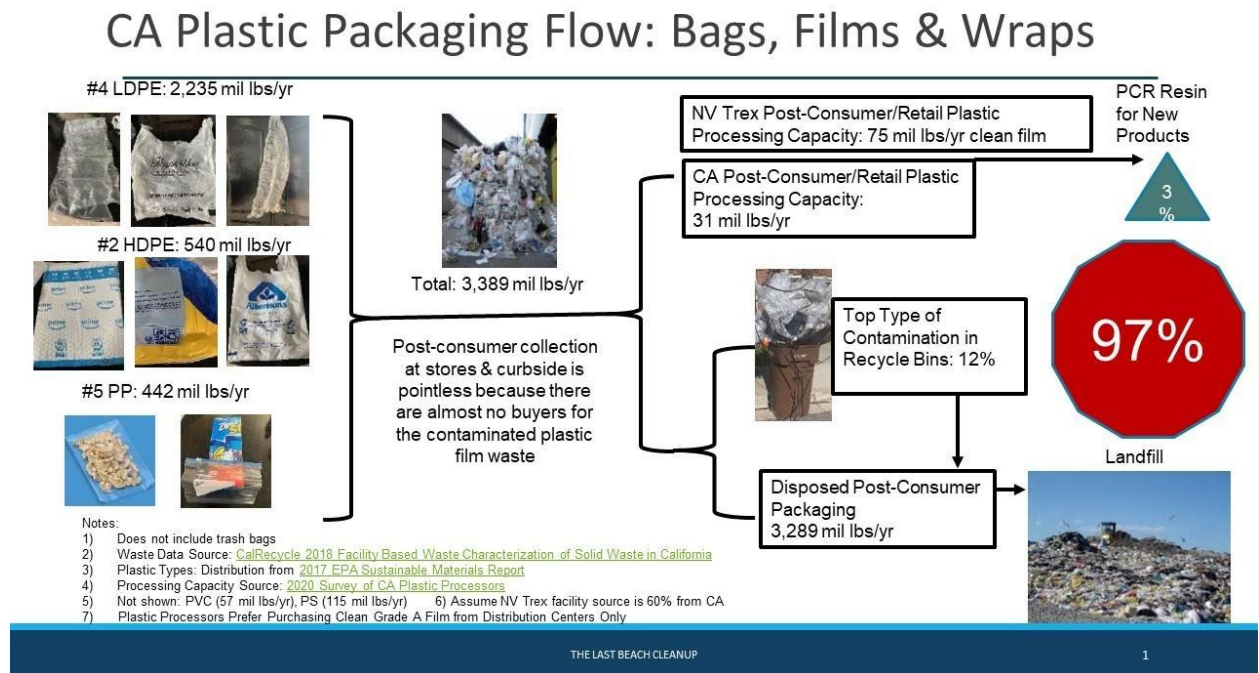
Background:

Scale of Flexible Plastic Waste and Contamination Problem

Figure 6 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, there is only capacity to recycle about 3% film waste. Therefore, about 97% of the waste is estimated to be disposed of. [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.

Figure 6: Flow Chart of California Plastic Bag, Film and Wrap Waste



Harms to MRFs:

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.”

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 7 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 being labeled as “recyclable” has led to consumer confusion. Based on surveys focused in Southern California, TRP, found that the majority of residents think plastic bags are accepted in their curbside recycling program.

Figure 7: Examples of Flexible Plastic Products with Recycle Word or Symbol

Examples of Bags/Films/Wraps with “Recycle” Labels



Consumer Confusion is Causing Curbside Contamination

Figure 8 shows examples of plastic bags, films, wraps and pouches seen in curbside bins in Southern California in 2020.



Policy 20-19: Compostable Products Certification and Approval for Composting or Anaerobic Digestion

Committee: Organics

Dates before full Commission: December 2, 2020 and December 16, 2020

Primary Author(s): Commissioners Skye and Lapis

Adopted: December 18, 2020

Background: The California Integrated Waste Management Act of 1989, administered by the Department of Resources Recycling and Recovery (CalRecycle), generally requires rigid plastic packaging containers, as defined, sold or offered for sale in this state to meet one of specified criteria.

(1) Senate Bill 1335 (SB 1335) (Allen, 2018) enacts 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 SB 1335 requires CalRecycle to publish and maintain on its Internet Web site that contains types of approved food service packaging that are reusable, recyclable, or compostable. SB 1335 requires CalRecycle to regularly, but no less than once every 5 years, evaluate the list of approved types of food service packaging and would authorize the department to add or remove types of food service packaging to or from the list based on whether the packaging is recyclable, reusable, or compostable. SB 1335 requires, on or before January 1, 2021, CalRecycle to adopt, in consultation with specified state and local agencies, regulations for determining the types of food service packaging that are reusable, recyclable, or compostable, and would prescribe specified criteria for the Director of CalRecycle to consider in determining whether a type of food service packaging is reusable, recyclable, or compostable. SB 1335 requires local governments, solid waste facilities, recycling facilities, and composting facilities to provide information requested by CalRecycle for purposes of developing those regulations.

SB 1335 requires a food service facility to provide to the department reasonable and timely access to contracts, invoices, and purchase orders that include information demonstrating whether the food service packaging material acquired by the food service facility is in compliance with the regulations. SB 1335 requires the Department of General Services or any state agency that is entering into a contract or agreement or amending an existing contract or agreement with a food service facility to ensure that the relevant contract or agreement conforms to any applicable provisions of the bill and would impose specified additional duties on the Department of General Services in relation to those contracts or agreements.

(2) AB 2287 authorizes the Director of CalRecycle to issue guidelines for determining whether a plastic product is not compliant with these labeling requirements, and whether a plastic product is designed, pigmented, or advertised in a manner that is misleading to

consumers. AB 2287 authorizes the CalRecycle to adopt the European Committee for Standardization's standard specification for biodegradable mulch film plastic, or a standard that is equivalent to, or more stringent than, that standard. AB 2287 authorizes the sale of commercial agricultural mulch film, labeled with the term "soil biodegradable" only if CalRecycle adopts the European Committee for Standardization's standard specification, or an equivalent or more stringent standard, and the commercial agricultural mulch film is certified to meet both that standard and the ASTM standard specification for compostability. AB 2287 updates the name of a specified certification for home compost, the name of the organization that developed that certification, and the names of two ASTM standard specifications, and would make other conforming changes.

Purpose(s): To ensure the resilience of the organic waste management system and achievement of California's organic waste diversion goals, this policy strives to establish standards for compostability for all foodservice ware. This policy will help limit contamination that reduces the quality and marketability of compost and other soil amendments.

Would this policy proposal require legislation, or interaction with an agency other than CalRecycle? Partially. CalRecycle has authority to implement these requirements for state facilities under SB 1335, but further legislation would be required to expand these requirements to other products sold in the state.

Possible 2021 Legislative Priority? Yes, 2021 Legislative Priority. The establishment of a market wide standard for composting and anaerobic digestion in California is necessary for the function, vitality, integrity and resilience of the organic waste management system, organic waste processing facilities, and achievement of environmental objectives which protect public health, safety and the environment.

Does this proposal require additional funding or changes to resource allocation? No, this policy recommendation includes a mechanism that regulated entities cover the costs for the administration of the certification process.

Proposal(s): Create a compostable products certification standard.

Compostable plastic foodservice ware or any other items seeking approval for sale as "compostable" pursuant to the Sustainable Packaging for the State of California Act, for the purposes of composting or anaerobic digestion, would be required to meet the following minimum thresholds.

Prior to the complete implementation of SB 1383 and subsequent roll out of composting infrastructure, a compostable product must

- Meet an ASTM Test Method for compostability (D6400 or D6868) as specified in Public Resources Code 42357.
- Obtain certification from the Biodegradable Products Institute (BPI) or equivalent third-party certified for meeting compostability and toxicity standards
- Be allowable organic inputs pursuant to the National Organics Programs and CDFA's Organic Input Materials requirements
- Not include intentionally added perfluorinated compounds
- Be clearly labeled in a manner that is clearly distinguishable upon quick inspection by consumers and solid waste processing facilities. At a minimum, products must

be labeled in accordance with standards adopted in other states (including Washington)

- Be explicitly accepted by the compost service provider that provides organic materials collection for the facility.

After the complete implementation of SB 1383 in 2024, every compostable product sold in the state or listed as an eligible product pursuant to the Sustainable Packaging for the State of California Act shall meet the following additional standards:

- If sufficient field validation has not been completed to confirm that existing ASTM Standard Specifications result in proper degradation under standard California composting conditions, a manufacturer must show approval from no less than 3 reference composting and/or anaerobic digestion (AD) facilities that represent the compost market for at least 750% of the state's municipal organic waste throughput.
- Parties proposing items for certification being compostable and/or AD must pay a fee for the administration of the item certification process. A separate fee will be required for each product that gets certified, if multiple products are submitted there may be opportunities for discounted fees. Fees will be no more than the cost to administer the testing of the product.

Any producers that wish to have their products certified must provide a complete list of all ingredients in the products with no omissions (no trade secrets). This list can be submitted confidentially for trade secret materials. The appropriate agency would confirm that all listed materials were non-toxic. Inclusion of any ingredients that are suspected to be harmful to the environment or humans will automatically disqualify a product from certification.

CalRecycle would administer the certification and labeling process. Only products that meet the certification criteria will be eligible to be sold in the state or to be advertised with the term "compostable".

Any products found to be using the label or a substantially similar label without certification will be subject to fines and penalties. Products that are designed, pigmented, or advertised in a manner that is misleading to consumers or those containing additives to increase fragmentation of non-degradable plastics shall also be prohibited.

Related Issues: This certification process is tied closely to the labeling policy proposals.

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

(At the time this letter was sent, the Commission was not authorized to adopt letterhead)

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 REDEEMBOTTLE 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% 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

Vice-Chair Richard Valle at rvalle@tri-ced.com

Co-Author/Commissioner Jeff Donlevy at jeff@dingsrecycling.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 - Los Angeles 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 Authority, Director

cc: League of California Cities

California State Association of Counties

Rural County's Environmental Services Joint Powers Authority (ESJPA)

Policy 21-21: Correct Counterproductive Incentives

Date(s) before full Commission: February 17, 2021 and June 2, 2021

Primary Author(s): Commissioners Skye and Ward

Status:Final Proposal

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% 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% 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.³ There are additional externalized costs for plastic

³ 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

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% 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.⁴

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.⁵

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 planned, plastic would use up between 10 and 13% of the carbon emissions allowable if warming is to stay below 1.5 degrees Celsius, the center reported.⁶

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.”⁷ Chemicals with the potential to disrupt the human endocrine system and thus impact fertility are widely used in plastics manufacturing. 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, and 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

⁴ <https://e360.yale.edu/features/the-plastics-pipeline-a-surge-of-new-production-is-on-the-way>

⁵ Ibid.

⁶ Ibid.

⁷ Plastic Pollution Coalition, “Science, Health & Toxicity”, <https://plasticpollutioncoalition.zendesk.com/hc/en-us/articles/225531028-Issues-Health-Hazards>

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.”^{8,9}

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 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 10% 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.¹⁰ 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.

⁸ <https://www.sciencedirect.com/science/article/pii/S0160412020322297>

⁹ <https://www.theguardian.com/environment/2020/dec/22/microplastics-revealed-in-placentas-unborn-babies>

¹⁰ Messenger, Ben “CarbonLITE Opens World’s Largest Bottle-to-Bottle Recycling Plant in Pennsylvania”, Waste Management World, October 23, 2020.

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 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% 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 counterproductive 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 counterproductive 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.

Policy 21-22: Adding Returnable Bottles into the California Bottle Bill

Dates before full Commission: June 2, 2021 and June 16, 2021

Primary Authors: Commissioners Sanborn and Lapis

Background: The bottle bill has not allowed for refillable containers for 30 years. It is time to focus on waste prevention and finally allow refillables back into the bottle bill program. Conscious Container has been conducting pilots in California on microbreweries using refillables and Oregon and Canada are already successfully using refillables and most of Europe and South America as well. We did have almost exclusively reusable bottles of coke and other beverages in the United states until the plastic bottle arrived on the market. We want to move back to reuse and source reduction first in the bottle bill program.

Purpose(s): Returnable systems are coming into California. We need to ensure our CRV Redemption systems have the necessary tools and processes in place to support this new and essential waste reduction infrastructure.

Would this policy proposal require legislation, or interaction with an agency other than CalRecycle? Yes – this policy will require statutory changes to the CalRecycle Beverage Container Recycling Program (Bottle Bill) – as advised by the CalRecycle DOR team.

Possible 2021 Legislative Priority? Yes, returnable bottles will begin entering the California marketplace in 2021.

Does this proposal require additional funding or changes to resource allocation? This proposal does not require any additional funding, only a process change to the existing CA Bottle Bill. Additional resources may be required to author and finalize the Bottle Bill language change.

Proposal:

Title: Allowing Returnable Bottles into the CA Bottle Bill Program

Returnable bottle systems are coming back to California. In order for the State of California to incur the full benefits of greenhouse gas reduction programs like reusable systems, returnable bottles must be able to flow through the state’s Beverage Container Recycling Program. A simple statutory change is needed to the CalRecycle program to enable Certified Recyclers and Certified Processors to manage returnable CRV containers processing without physically crushing (canceling) the containers while these containers remain within the State of California for collection and washing and resell back to beverage producers inside and outside the State of California. A single returnable bottle can circulate through this system multiple times.

Currently, a CalRecycle Certified Processor is required to 'cancel' a CRV container once it is received or picked up from the recycler. 'Canceling' requires the container to be crushed or shipped outside the State of California.

By allowing recyclers to redeem (pay CRV) to consumers, and claim CRV reimbursement, and any applicable processing payment and/or handling fee for returnables as they do for single-use bottles, the bottle can be reused, and enter the CalRecycle CRV system the same as any other new CRV bottle.

Some considerations for this statutory change:

- A new definition and process of 'canceling' bottles so 'returnable' bottles can access the same CRV collection incentives and infrastructure without having to be 'crushed'.
- Definition of CRV container needs to be 'returnable' as 'refillable' bottles are currently exempt from program
- Additional bottle reporting structures and processes to track returnable bottles

There are returnable glass and PET container systems around the world. The savings these systems deliver to beverage producers' packaging costs and reductions in their packaging CO2 impacts are driving investment from corporations to maintain and protect these systems around the world. A refillable glass bottle can be washed and refilled over 25 times. In a mature system, a 12oz refillable glass bottle has 95% lower carbon footprint compared to a 12oz single use glass bottle.

Returnable systems are coming into California. We need to ensure our CalRecycle CRV Redemption systems have the necessary tools and processes in place to support this new and essential waste reduction infrastructure.

A California refillable/returnable CRV bottle system will develop markets for the processing of California CRV containers which will create jobs, reduce the CRV container CO2 footprint, and reduce the CRV containers going to landfill in California.

Related Issues: AB 962 by former Assemblymember now Senator Sydney Kamlager would address all these concerns and we would recommend the Commission take an official support position on this bill if allowed (still awaiting CalRecycle's final decision as to whether that is appropriate for the Commission). We would recommend they change the measurement from weight to container as that is how the process operates around the world.

Policy 21-23: Redefine Reusable Food Service Packaging

Date(s) before full Commission: May 5, 2021, May 19, 2021 and June 2, 2021

Primary Author: Commissioner Ward

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.

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.

Proposal:

1. 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, there is at least an 80% performance standard and that such items can 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.

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

Policy 21-24: Producer Responsibility for Market Development

Committee: Market Development

Dates before full Commission: April 7, 2021, May 19, 2021, and June 2, 2021

Adopted: June 2, 2021

Primary Authors: Commissioners Oseguera and 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 or Stewardship Organization(s) for each material category. Administrative costs to implement the program would be covered by the PSO.

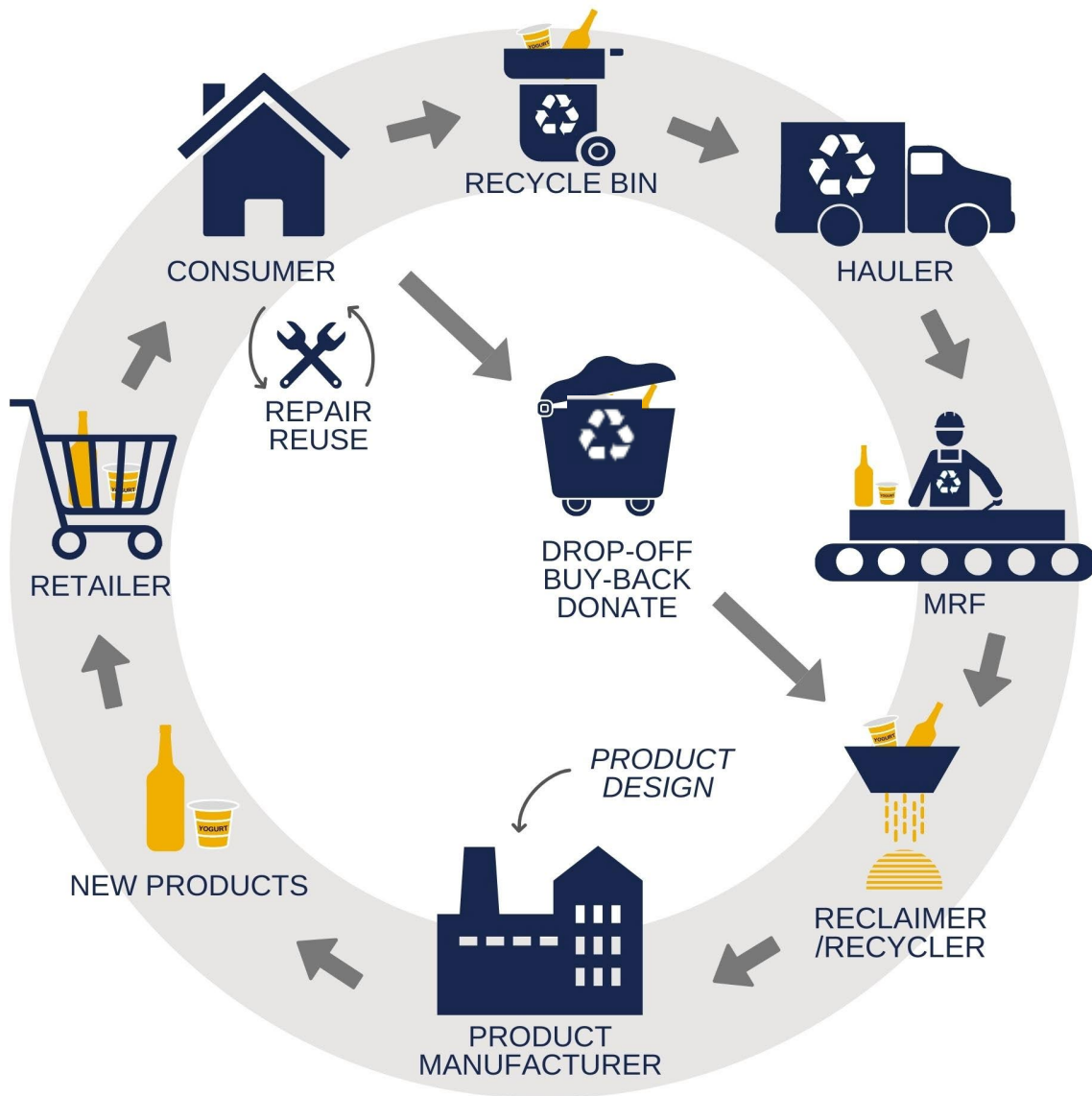
Proposal(s)

Producers of covered products must form a Producer or Stewardship Organization (PSO) 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 PSO 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.

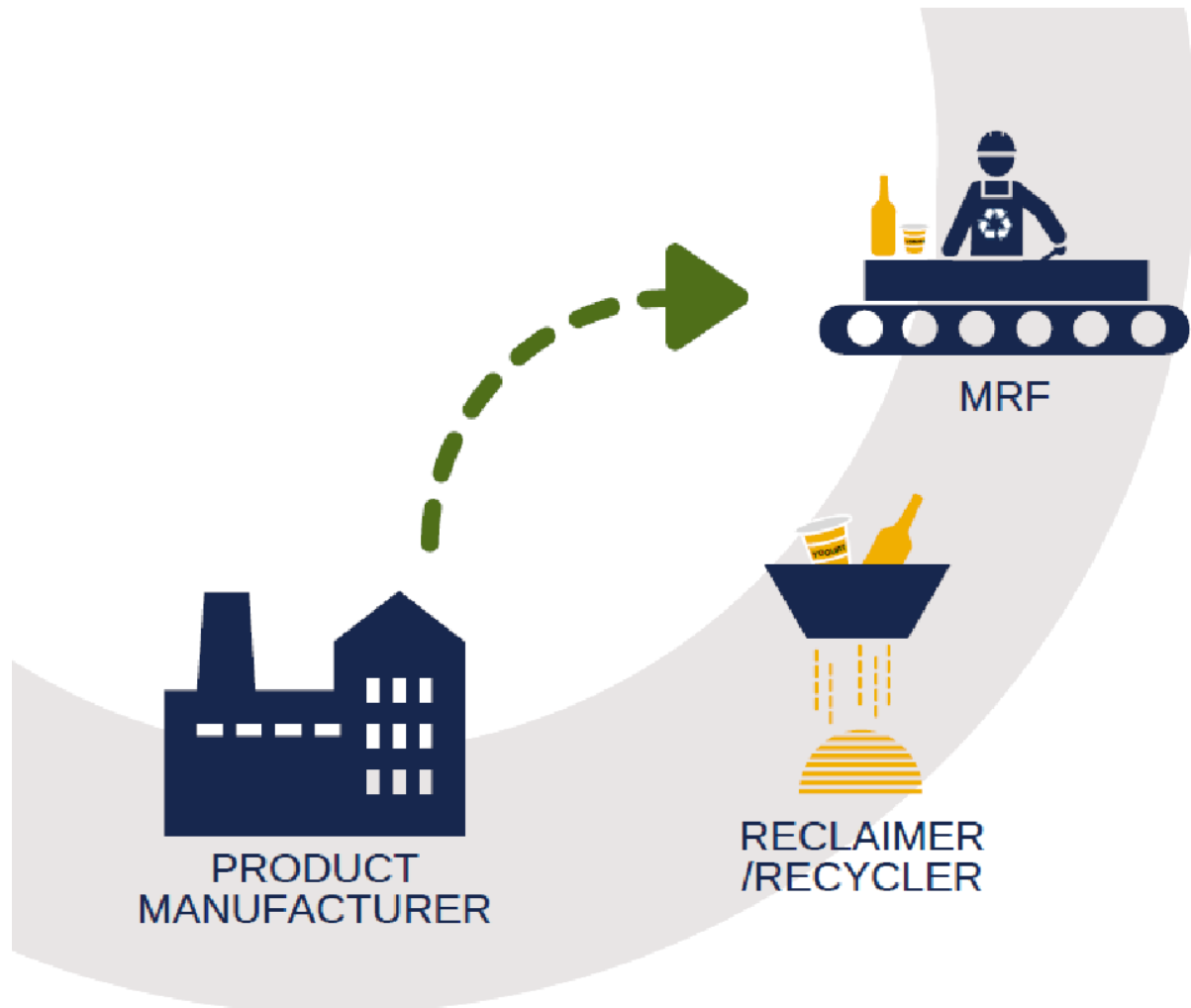
6. In accordance with PRC Section 40004, the plan does not disrupt, or otherwise adversely affect, the sustained operation or commercial viability of solid waste collection programs, solid waste recycling facilities, or composting facilities providing services in accordance with local solid waste handling 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 PSO 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 21-25: Fiber products recycled content requirements

Committee: Market Development

Date(s) before full Commission: June 2, 2021 and June 16, 2021

Approved: June 16, 2021

Primary Author: Commissioner 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 trash cans 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% 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% 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 is 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.

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](#).⁽¹⁾

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.⁶⁸ It is then sent through a chemical bleaching process to whiten the pulp.^{\(iii\)}](#)

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.^{(iii), (iv)}

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.^(v) 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.^(vi)

In 2018, when China implemented new restrictions on imports of waste materials under the China SWORD Policy, reducing imports by 96.5% 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.^(vii)

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

(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.

(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% post-consumer 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% post-consumer recycled content to be deemed Environmentally Preferable Purchasing (EPP). Paper janitorial commodities similarly need to be certified under one of two third-party certification programs and/or contain a minimum of 30% post-consumer 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 to contain, on average, no less than 50% post-consumer 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% 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% recycled content.
- (3) On or after January 1, 2030, all tissue products for sale in the state shall include no less than 90% 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% but less than 100% 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% but less than 75% 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% but less than 50% 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% but less than 25% 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% 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 will:

- 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, with a 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 21-26: Hospitality Textile Recycling

Committee: Market Development

Date(s) before full Commission: May 19, 2021 and June 2, 2021

Primary Authors: Commissioner 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 a 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, the [California Product Stewardship Council](#) 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 technology industries, 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 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, level the playing field, and serve as an accelerator for textile product designs 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 the government, but also 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 501(c)3 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 CO₂ emission reduction goals for producers while identifying preferred fibers, such as organic cotton and recycled polyester, as key switches for success.

Proposal(s):

- Option 1: Add language to:
 - [C.A. HSC § 104.15.1 Section 118425 \(ARTICLE 3. Common Towels added by Stats. 1995, Ch. 415, Sec. 6.\)](#)
 - [C.A. HSC § 104.15.1 Section 118430 \(Article 4. Wiping Rags added by Stats. 1995, Ch. 415, Sec. 6.\)](#)
- Option 2: Add Article 5 on End-of-life management for textiles.
- Option 3: Introduce comprehensive definition and responsibilities for industrial laundries. Example: [AB 2679 \(O'Donnell, 2018\). Health facilities: linen laundry.](#)

Add to the HSC regulations cited above. 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 the 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:
 - Use California-sourced natural fibers that are not treated with chemicals on the DTSC's Candidate Chemicals [list](#),

- Use natural fibers on the USDA organic natural fibers list, or
- Are B Corporation with a takeback program that includes repair/reuse.
- 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 thrift stores 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 great 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 for new products to site in California.

Related Issues: *Textile Recycling, Industrial Laundry* There are no related Commission issues at this time.

Bibliography

1. [Huge market potential in removing substances of concern from circular economy](#)- ChemSec, 2/24/21
2. [Textile Exchange Sustainability Conference Overview Report](#)- Textile Exchange, 11/2020
3. [Hospitality Linens](#)- National Association of Institutional Linen Management. Accessed 4/2/21
4. [Industrial Laundry](#)- CINET Professional Textile Care. Accessed 4/2/21
5. [Recycle Linen](#)- American Reusable Textile Assoc. Accessed 4/2/21
6. [Linen Life, Replacements and Rejects](#)- ALM Journal, Summer 2013
7. [Policies Promoting Clothing Reuse, Repair, & Repurposing](#)- CPSC, 11/10/20
8. [Home and Hospitality Round Table Summary](#)- Textile Exchange, 12/2020
9. [An Environmental Analysis of Reusable and Disposable Surgical Gowns](#)- AORN Journal, 3/2020
10. [Life Cycle Assessment of Cleanroom Coveralls: Reusable and Disposable](#)- Journal of Pharmaceutical Science and Tech., 1/11/18
11. [Personal Protective Equipment Supply Chain: Lessons Learned from Recent Public Health Emergency Responses](#)- Health Security, 6/2017
12. [Why hospitals are beginning to reuse or recycle oxygen masks, IV bags, surgical tools they used to throw out](#)- CBC, 3/6/21
13. [Sustainability-Driven Legislation – Setting The Right Conditions For Hospitality? A Review Of Viewpoints](#)- HospitalityNet, 3/29/21
14. [Textile Exchange’s 2030 Strategy: Climate+](#). Accessed 4/27/21.
15. [C.A. HSC § 104.15.1 Section 118425 \(ARTICLE 3. Common Towels\)](#)- California Legislative Information. Accessed 4/2/21
16. [C.A. HSC § 104.15.1 Section 118430 \(Article 4. Wiping Rags\)](#)- California Legislative Information. Accessed 4/2/21

17. [AB-2679 \(O'Donnell, 2018\) Health facilities: linen laundry-](#)
California Legislative Information. Accessed 4/2/21

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

Committee: Market Development

Date(s) before above Committee: April 26, 2021 and May 5, 2021

Date(s) before full Commission: May 19, 2021

Primary Author(s): Commissioners Sanborn and Toyoda

Adopted: June 2, 2021

Background:

CALGreen requires most locally permitted construction projects to divert 65% 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 commingled 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% 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% 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 third-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 third-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% if the rate is certified by a state approved third-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 third-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 third-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 third-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 third-party verified, the City could evaluate facilities that had recovery rates lower than 65%. 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 third-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 third-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 100% of the metals, asphalt, concrete, gypsum, and similar material, and at least 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% diversion rate is under CALGreen authority. In addition, legislation would be necessary to require the third-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 third-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 third-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 organic materials 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.
5. Recycling rates shall adhere to these requirements:
 - a. Measurements must be based on weight (not volume), using scales.
 - b. Recycling rates must be available on a website and viewable by the general public.
6. Facility recycling data submitted to a 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 in-dependent third party entity.
7. 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/biofuel 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 third-party verified rates) as an example.

REDUCING PERMITTED THROUGHPUT 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 21-28: Renewable Technology / Organic Discards to Energy Infrastructure and Market Development

Dates before full Commission: April 7, 2021 and April 21, 2021

Primary Authors: Commissioners Skye and Oseguera

Adopted: May 5, 2021

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% of the total waste stream sent for disposal each year (CalRecycle 2015, 2019).
- Organic waste decomposing in landfills accounts for 20% of the total anthropogenic methane generated in California.^[1]
- 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.^[2]

Organic Discards Diversion: One of the most cost-effective Carbon Negative Emissions Opportunities

SB 1383 (Lara, 2016) establishes a statewide target to divert 75% 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% 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% of point sources contributing roughly 60% 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 %), followed by dairies (26 %) and the oil and gas sector (26 %). Our data have enabled the identification of the 0.2% 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 State’s 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.^[3]

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.^[4] 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 wastewater 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.”^[5]

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.

[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

Committee: Organics

Dates before full Commission: May 19, 2021, June 2, 2021 and June 16, 2021

Adopted: June 16, 2021

Primary Author: Commissioner Ward

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 CO₂ 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, and tangible actions individuals can take to address climate change.

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.

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 1383 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.

Proposal(s): That CalRecycle technical staff hire a qualified consultant or coordinate staff efforts to produce a report that would:

- Define 'carbon farming' and clarify which lands could be used for such.

- Assess the potential for the strategic agricultural, landscaping, and general application of compost and mulch materials and other carbon farming 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 barriers to the use of compost, such as concerns regarding the potential spread of invasive plants, and how those barriers could be addressed.
- Address the potential for the carbon farming programs and techniques such as 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.
- The Governor and Legislature should consider additional funding to support these programs.

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.

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.

Policy 21-30: Label System for Products and Post-Consumer Management

Committee: Labeling and Media

Date(s) before full Commission: October 7, 2020 and February 2, 2021

Primary Author(s): Commissioners Skye and Dell

Status: First reading adopted May 5, 2021 and second reading 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.¹¹ TRP found on average that 20% of materials delivered to California materials recovery facilities (MRFs) were not accepted by local curbside recycling programs.¹² California consumers apparently are confused about the correct destination for used materials, including whether an item is compostable, recyclable, or 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, organic materials, 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.¹³ 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 at 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.¹⁴

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).

¹¹ CalRecycle, 2018 Disposal Facility-Based Characterization of Solid Waste in California, Table 8, page 22

¹² The Recycling Partnership, [2019 West Coast Contamination Initiative Research Report](#)

¹³ The Recycling Partnership, West Coast Contamination Initiative Addendum, Figure 58, page 29

¹⁴ The Recycling Partnership, [2019 West Coast Contamination Initiative Research Report, Figure 64, Page 31](#)

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.

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.¹⁵

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 the 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.

15

[https://govt.westlaw.com/calregs/Document/IA96E3070D4BA11DE8879F88E8B0DAAAE?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Document/IA96E3070D4BA11DE8879F88E8B0DAAAE?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default))

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. 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, county, regional 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 its use for labelling and the State Agency Buy Recycled Campaign.
[Policy 21-04: 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 reparability 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 2024.¹⁶ 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.¹⁷
 - 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.¹⁸
 - 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 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.

¹⁶ <https://www.ecologie.gouv.fr/indice-reparabilite>

¹⁷ <https://www.ifixit.com/tablet-repairability>

¹⁸ 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>

- 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 2020¹⁹).

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.²⁰
- 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.²¹ Energy, carbon emissions, labor, and costs are wasted from collecting and sorting unwanted, worthless items through sorting systems.²² 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 should be the first to be eliminated or redesigned, preferably to reusable products, or be made from more environmentally advantageous materials.

¹⁹ Greenpeace, [Circular Claims Fall Flat](#), February 2020.

²⁰ [FTC Green Guides](#) Website.

²¹ Recycling Today, "[The heavy toll of contamination](#)," April 19, 2017.

²² Rubicon, "[What is Recycling Contamination, And Why Does it Matter?](#)," December 4, 2017.

Companies have marketed consumer products as having an environmental benefit, such as being recyclable, since the 1980s.²³ 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."²⁴

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").²⁵

The Federal Trade Commission's Green Guides²⁶ 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% 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% 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."

²³ Business for Social Responsibility, "[Eco-promising: communicating the environmental credentials of your products and services](#)," April 2008.

²⁴ Seeking Alpha, "[Waste Management 10-K for the Year 2018](#)," filed on 2/14/2019.

²⁵ [California Business and Professions Code § 17580.5](#)

²⁶ <https://www.ftc.gov/tips-advice/business-center/guidance/environmental-claims-summary-green-guides>

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 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
 Recycle Right

Icon
TBD
 Compost Correctly

Icon
TBD
 Trash Only
 Landfill Only

Commission Policy Recommendation Scorecard			
Policy #	Topic	Introduced Legislation & Status as of 6/25/2021	Budget Revision
20-01	Extending Producer Responsibilities Framework for Household Hazardous Waste (HHW)	SB 289 (Newman): Failed to move SB 244 (Archuleta): Assembly Natural Resources (ANR)	
20-02	Transition from Single-Use Propane Cylinders to Refillable		
20-03	Precautionary Principle	AB 652 (Friedman): Senate Env. Quality AB 1200 (Ting): Senate Env. Quality AB 1201 (Ting): Senate Env. Quality	
20-04	Problem Products – Incentives and Disincentives	AB 622 (Friedman): Failed to move AB 802 (Bloom): Failed to move AB 1086 (Aguiar-Curry): Senate Env. Quality & Natural Resources and Water AB 1371 (Friedman): Failed to move	
20-05	State Agency Buy Recycled Campaign	AB 661 (Bennett): Two-year bill AB 683 (Grayson): Failed to move	
20-06	Recycling Market Development Zone Loan Program		
20-07	Consolidated Permit Process Utilization and Enhancement		
20-08	Governor’s Office of Business and Economic Development (GO-Biz) Enhanced Role		May
20-09	CalRecycle Market Development Focus		May
20-10	Controls on Plastic Waste Exports	AJR 4 (C. Garcia): Senate Floor AB 881 (Gonzalez): Senate Env. Quality	
20-11	Carpet Stewardship and Flooring		
20-12	Food Recovery Policies	AB 125 (R. Rivas): Failed to move AB 1086 (Aguiar-Curry): Senate Env. Quality & Natural Resources and Water SB 619 (Calderon): Asm Appropriations	
20-13	Right to Repair	SB 605 (Eggman): Failed to move	
20-14	Beverage Container Recycling, Changes to the Bottle Bill and Support CalRecycle AB 54 Report	AB 962 (Kamlager): Senate Env. Quality AB 1067 (Ting): Failed to move AB 1454 (Bloom): Senate Env. Quality SB 38 (Wieckowski): ANR SB 451 (Dodd): ANR AB 1311 (Wood): Senate Env. Quality	
20-15	What is Recyclable?	AB 478 (Ting): Senate Env. Quality SB 343 (Allen): Asm. Judiciary	
20-16	Design for Recyclability: Plastic Container Labels and Shrink Sleeves		
20-17	Design for Recyclability: Beverage Containers		
20-18	Label Restriction to Stop Plastic Bag/Film Contamination in Curbside Recycling		
20-19	Compostable Products Certification and Approval for Composting or Anaerobic Digestion	AB 1201 (Ting): Senate Env. Quality	
21-20	Letter to the Legislature 2/3/21 on Urgency Changes to Bottle Bill	AB 1311 (Wood): Senate Env. Quality	
21-21	Correct Counterproductive Incentives		
21-22	Adding Returnable Bottles To the Bottle Bill	AB 962 (Kamlager): Senate Env. Quality	
21-23	Redefine Resuable Food Service Packaging		
21-24	Producer Responsibility for Market Development		
21-25	Fiber Products Recycled Content Requirements	AB 416 (Kalra): Senate GO	
21-26	Hospitality Textile Recycling		
21-27	Recovering Resources from Mixed C&D Debris		
21-28	Renewable Technology for Organic Discards to Energy Infrastructure and Market Development		
21-29	Carbon Farming		
21-30	Label System for Products & Post-Consumer Mgmt.		
Total number of policies with related action from State (count as 1 even if several actions were taken on the same policy)		11	2
		13 of Original 19 recommendations resulted in some action; 1 Died	