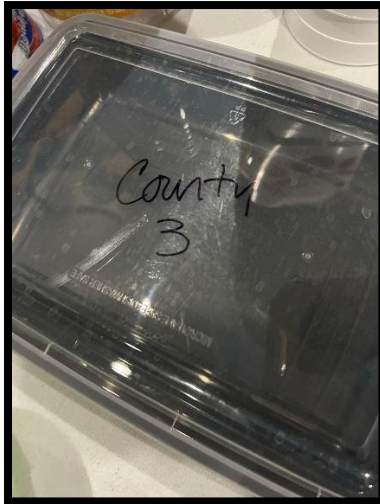
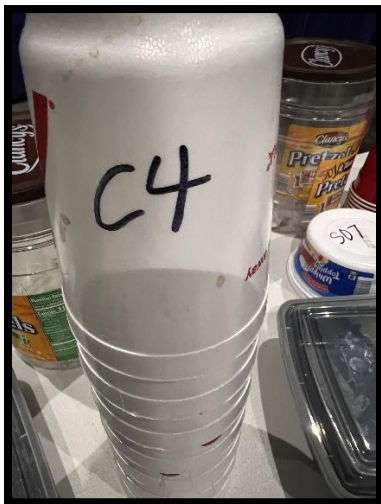




The Last Beach Cleanup

2025 Fact Briefing: California's Household Paper Waste Exports are Polluting Asia and Breaking Country Import Laws

December 2, 2025



California Plastic Waste Exported in Paper Bales Tracked to Malaysia and Thailand (Credit: The Last Beach Cleanup)

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1. Summary

Asian country governments, local communities, and global environmental non-governmental organizations (NGOs) have been fighting against the export of plastic and mixed paper and plastic wastes from rich, developed countries, including the United States (U.S.), because of the tremendous pollution that it creates in receiving countries.¹ The pollution resulting from plastic waste including mixed plastic and paper waste imports has been proven to cause toxic chemicals such as dioxin to enter the food supply and create widespread harm to human health and the environment.²

Starting with China in 2018, major Asian countries have outright banned or severely restricted paper waste imports because the waste is known to contain significant quantities of plastic waste and other contaminants.³ As described in “Plastic Waste Trade: the Hidden Numbers” in 2023, U.S. paper bales are known by the recycling industry to include 30% contamination of plastic and other non-paper materials.^{4,5}

“Other Paper – including Unsorted” waste (shipping code HS4707.9)⁶ is the category that is typically used to describe paper waste placed in mixed curbside recycling bins at households. (It does not include sorted household cardboard waste or sorted office paper waste). In 2022, Malaysia banned the import of this category of Other Paper waste (HS4707.9) because of the large concentration of plastic contamination that was causing pollution in communities located near paper mills.^{7,8} In 2022, Vietnam also banned the import of Other Paper HS 4707.9 waste due to environmental concerns.⁹

Aseptic cartons which are designed to keep beverages and food liquids safe for many months after being pasteurized and sealed, usually are made from a lamination of aluminum, plastic and paper. These are typically comprised of 24% plastic, 6% metal, and 70% paper.¹⁰ Schematic diagrams show the many layers that comprise the cartons.¹¹ Due to the significant content of plastic and metal, such cartons are considered a different material type than Mixed Paper waste. The REMA/ISRI standard for Mixed Paper Waste (Grade 54) is separate and distinct from the standards for Aseptic and Gable-Top Cartons which typically are plastic coated but do not include the aluminum (Grade 52).¹² The USEPA also states that the term “Mixed Paper” refers to a variety of paper types but does not include composites of plastic or metal. According to REMA/ISRI, both Grade 54 Mixed Paper Waste and Grade 52 Aseptic and Gable-Top Cartons defined to be included in the Other Paper HS 4707.9 waste category.

¹ IPEN, “[Waste Trade in Southeast Asia](#),” July 2021

² Ha, “[Amazon Packages Burn in India, Final Stop in Broken Recycling System](#),” Bloomberg, December 27, 2022

³ Coca, “[Asian countries spurn and burn waste imports](#),” Dialogue Earth, January 23, 2020

⁴ IPEN, “[Plastic Waste Trade: The Hidden Numbers](#),” March 2023

⁵ Paben, “[Editor’s Perspective: First look at a retooled paper mill](#),” Resource Recycling, October 25, 2022

⁶ Flexport, [HS 4047 Definitions](#), accessed Sept. 10, 2025

⁷ Wong, “[Malaysia is not a “Garbage Dump”: Citizens against corruption, complacency, crime, and climate crisis](#),” C\$ Center Special Report, 2021

⁸ AMCS, “[Exporting scrap metals and fibre to Malaysia? Learn how to adapt and comply with the new inspection rules](#),” July 2025

⁹ Smalley, “[Another door closes on mixed paper](#),” Recycling Today, November 5, 2020

¹⁰ Miller, “[Profiles in Garbage: Aseptic Boxes, Milk Cartons](#),” Waste 360, August 1, 2001

¹¹ [RecycleMore, Aseptic Packaging: Why Items like Milk Cartons Are Difficult to Recycle](#). Accessed on September 7, 2025

¹² IsriSpecs.org, “[Aseptic Packaging and Gable-Top Cartons](#),” accessed on September 7, 2025

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California's location on the U.S. west coast with easy access to shipping, a population of 40 million people, punitive 50% waste diversion law imposed on cities,¹³ and scarce water resources required for recycling, led it to become a major exporter of paper waste to Asia over the last two decades.¹⁴

California is now exporting a massive amount of Other Paper waste (HS4707.9) to countries that have banned these types of paper waste imports, including 103,157 metric tonnes (4,126 shipping containers) to Malaysia in 2025 (January through July).¹⁵ Through the use of tracking devices, the Basel Action Network (BAN) and The Last Beach Cleanup (LBC) have evidence proving that California's plastic waste is contaminating paper bales and is being exported to Malaysia and other countries with laws prohibiting all Other Paper (HS 4707.9) waste imports or contaminated paper waste imports.

In fact, a recent action by the California Department of Resources, Recycling, and Recovery (CalRecycle) actually endorses the contamination of Mixed Paper bales from households with plastic and metal-containing aseptic cartons and encourages the exporting of these contaminated Mixed Paper bales to two countries that have banned Mixed Paper bale imports. This is aiding and abetting illegal imports in Asia, exacerbating the pollution problem, and demonstrates CalRecycle's disregard for the laws of sovereign nations.

This shocking action by CalRecycle has catalyzed BAN and LBC to publish this Fact Briefing with specific demands to CalRecycle, California waste and brokerage companies, and shipping companies.

1.1 Key Facts

In 2021, California passed a law related to paper waste that was intended to protect California consumers from false recyclability labels (SB 343).¹⁶ Under SB 343 CalRecycle is required to publish data about the types of materials and forms recycled in California.

In December 2023, CalRecycle released the SB 343 Material Characterization Study Preliminary Findings (2023 SB 343 Preliminary Report).¹⁷ In the 2023 SB 343 Preliminary Report, CalRecycle explicitly stated that Aseptic and Gable-Top Cartons were a specific "defined material stream" separate from Mixed Paper and noted that the carton stream failed to meet sortation requirements.¹⁸

In April 2025, CalRecycle published the "SB 343 Material Characterization Study Final Findings 2023/2024."¹⁹ (2025 SB 343 Final Report). In this 2025 SB 343 Final Report, CalRecycle again stated that Aseptic and Gable-Top cartons were a specific "defined material stream" separate from mixed paper and again noted that the carton stream failed to meet the sortation requirements.

¹³ California state law [AB 939](#), signed in 1989, required California jurisdictions to divert 50% of solid waste going to landfills by the year 2000. [AB 341, signed in 2011](#), established a policy goal that 75% of solid waste generated be reduced, recycled or composted by 2020.

¹⁴ Staub, "[How China fallout is shaking recycling in California](#)," February 27, 2018

¹⁵ Export data given in Section 3. [Load capacity of one shipping container is 67.7 cubic meters and USPEA reports mixed paper density of 0.37 tonnes/cubic meter.](#)

¹⁶ California Code, [Public Resources Code - PRC § 42355.51](#)

¹⁷ CalRecycle, [SB 343 Material Characterization Study Preliminary Findings](#), December 28, 2023

¹⁸ CalRecycle, [SB 343 Material Characterization Study Preliminary Findings](#), December 28, 2023

¹⁹ CalRecycle, [SB 343 Material Characterization Study Final Findings 2023/2024](#), April 2025

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On June 20, 2025, CalRecycle's Director sent a letter to the Carton Council of North America (Carton Council) explicitly stating that Aseptic and Gable-Top Cartons were a specific "defined material stream" separate from Mixed Paper and that the carton stream failed to meet sortation requirements.²⁰

However, on August 8, 2025, CalRecycle published an "Update Letter"²¹ and an "Attachment 1"²² revising their 2025 SB 343 Final Report and granting an exemption to allow Aseptic and Gable-Top Cartons (cartons) to be considered "sorted" if they were added into Mixed Paper bales. As described in the Update Letter and CalRecycle communications, CalRecycle's decision was based on the 2023 attestation of one pulp and paper company in Asia who claimed that they would recycle the combined Mixed Paper and Aseptic and Gable-Top Carton stream. The exemption granted allowed Aseptic and Gable-Top Cartons to pass CalRecycle's sortation calculation. (Note that BAN and LBC do not believe that CalRecycle's sortation calculation is valid).^{23,24}

This decision was shocking not only because it contradicted and reversed CalRecycle's long-stated position that Aseptic and Gable-Top Cartons were a unique "defined material stream" under SB 343 and could not be added to Mixed Paper bales, but moreover because the company claiming to recycle the combined Mixed Paper and Aseptic and Gable-Top Carton stream only has factories in countries that have banned both Mixed Paper and Aseptic and Gable-Top Carton waste imports (China, Malaysia, and Vietnam). CalRecycle appears to have neglected to do basic due diligence on the carton industry's recycling claim.

Finally, as BAN and LBC noted in its previous Fact Briefing,²⁵ this decision defies the SB 343 requirement that waste bales be created of ***defined streams sent to and reclaimed at a reclaiming facility consistent with the requirements of the Basel Convention.*** (emphasis added). As we had noted, it flies in the face of Basel's fundamental obligation to respect the national waste trade prohibitions and controls imposed by importing countries. Further, a waste stream collected from households, and one which contains plastic mixed with non-plastic is likely to either be controlled as Basel listings Y46 or Y48. Neither of these Basel controlled waste streams can be legally imported from the United States by Basel Parties (e.g. Malaysia, Indonesia, Vietnam) due to the Basel Convention's Party/non-Party waste trade ban (Article 4,5). Moreover, the mixing of separate waste streams results in a less recyclable combined stream that undermines Basel principles and the actual obligation on the United States found in the OECD Council Decision to which the US is a contracting party.

For these reasons, BAN and LBC do not believe that CalRecycle has the legal authority to grant any exception on the definitions of defined material streams and sortation requirements under SB 343.

In their February 2024, Fact Briefing BAN and LBC published a comprehensive, detailed assessment of the California SB 343 and AB 881 legal requirements, the material characterizations and other

²⁰ Communications received through public records request. Communications provided in Appendix 1.

²¹ CalRecycle, "[SB 343 Update Letter](#)," August 8, 2025

²² CalRecycle, "[SB 343 Attachment 1](#)," August 8, 2025

²³ BAN/LBC, "[Fact Briefing: California State's Own Data Reveals Consumer Plastics are not Recyclable and are Being Exported Illegally](#)," February 12, 2024

²⁴ CalRecycle, "[SB 343 Material Characterization Study Final Findings 2023/2024](#)," Appendix 2, April 2025. See Comment #97 made by The Last Beach Cleanup beginning on page 108.

²⁵

information stated in the 2023 SB 343 Preliminary Report, and California's plastic waste export data.²⁶ The 2024 BAN/LBC SB 343 Assessment Report proved that all of California's plastic waste bales exceeded Basel Convention contamination normative thresholds and therefore California's plastic waste bales failed under SB 343 to be "recyclable." A letter of support for the findings and recommendations signed by 106 NGOs was sent to the California Secretary for Environmental Protection and the State Attorney General.²⁷

1. Asian countries have implemented bans and restrictions on contaminated paper waste imports to protect their people from pollution and health harms caused by the wastes received from other countries, including the U.S. Malaysia has banned Other Paper waste (HS 4707.9) imports from all countries. Malaysia has also banned all plastic waste imports from the U.S. because the U.S. is not a Party to the Basel Convention. Vietnam has banned imports of Other Paper waste (HS 4707.9). Taiwan has banned imports of mixed paper waste. Thailand, Indonesia, and India have strict regulations prohibiting the import of paper and plastic waste with maximum contamination levels set at 1 to 2%. (See Section 4 for links to paper waste import regulations).

2. California is currently exporting massive amounts of mixed paper wastes to Malaysia, Vietnam, and Taiwan in violation of their national import laws. In 2024, California exported **Other Paper (HS4707.9)** waste to Malaysia (134,903 tonnes = 5,396 shipping containers), to Vietnam (13,988 tonnes = 560 shipping containers), and Taiwan (39,247 tonnes = 1,570 shipping containers).²⁸

3. California Law SB 343 requires that collected and sorted wastes be sent to recycling facilities in a manner consistent with the Basel Convention. However, Basel Convention's Article 4.1 makes clear that all waste import bans must be respected. As noted above, this is not occurring, indicating a violation of SB 343.

4. Aseptic and Gable-Top Cartons are a unique material type and constitute a "defined material stream." As noted above, in their 2023 and 2025 SB 343 reports, CalRecycle has consistently stated that aseptic and Gable-Top cartons are a separate defined material stream from mixed paper waste. REMA/ISRI defines Aseptic and Gable-Top Cartons to be a different category of paper waste.

5. Mixing plastic waste with paper waste is contraindicated by the Basel Convention, the OECD, and the European Court of Justice. SB 343 requires consistency with Basel. The U.S. is a contracting Party to OECD Council Decisions and is thus obligated not to mix wastes in a manner that impairs recycling, and such mixing was also seen as demanding greater control by 27 European countries in a landmark court decision.

6. Based on claims made by one Asian paper company with operations in countries with bans on Mixed Paper and Aseptic and Gable-Top Carton imports, CalRecycle illegitimately granted an exemption to the SB 343 sortation requirements for Aseptic and Gable-Top Cartons. Through documents provided through a public records request, communications between CalRecycle and the Carton Council show that CalRecycle relied on the claims of Lee and Man Paper Company that the

²⁶ BAN/LBC, "[Fact Briefing: California State's Own Data Reveals Consumer Plastics are not Recyclable and are Being Exported Illegally](#)," February 12, 2024

²⁷ Plastic Pollution Coalition, "[Truthful Implementation and Enforcement of California Plastics Laws](#)," March 29, 2024

²⁸ Export data given in Section 3. [Load capacity of one shipping container is approximately 25 tonnes](#).

company would recycle a combined stream of Aseptic and Gable-Top Cartons and Mixed Paper in one of their factories.²⁹ However, without regard to the accuracy of this claim, Lee and Man Paper Company only operates paper factories in three countries (China, Malaysia, and Vietnam), all of which have bans on both Aseptic and Gable-Top Cartons and Mixed Paper waste imports. CalRecycle should not have given an exemption based on a claim in turn based on illegality.

6. Trackers prove that California's household paper waste bales are being contaminated with plastic containers and exported to countries with bans or strict contamination limits.

- A Gallo Wine aseptic carton returned for deposit at a redemption center in San Juan Capistrano was trucked to a material sorting facility in Santa Ana. The aseptic carton was likely added to mixed paper or cardboard bales because it was exported to a paper mill in Thailand where it was segregated out as contamination and trucked to a rural contaminated plastic waste site in Thailand.
- A large black polypropylene plastic food tray was picked up from a San Diego County residence recycling bin and trucked to a local San Diego material sorting facility and then shipped to a paper mill in Malaysia where it was likely either dumped or burned.
- A large stack of expanded polystyrene foam cups was picked up from a San Diego County residence recycling bin and trucked to a local San Diego material sorting facility and then shipped to a paper mill in Malaysia where it was likely either dumped or burned.

1.2 Demands

- 1) **CalRecycle must immediately rescind the August 8, 2025 SB 343 Amendment that falsely declared that adding plastic and metal-containing cartons into Mixed Paper bales qualifies as "sortation" under California law.** The exemption given creates contaminated Mixed Paper exports that break the laws of major Asian countries, and as such, is not aligned with the Basel Convention which must respect national trade prohibitions of importing states. As such, under SB 343, CalRecycle cannot grant such an exemption.
- 2) **California waste companies and brokers must immediately cease exports of "Other Paper" waste (HS4707.9) to China, Malaysia, Vietnam, South Korea, and Taiwan.** This includes either Mixed Paper (Grade 54) or Aseptic and Gable-Top Carton waste (Grade 52). Exports of Other Paper (HS4707.9) waste to other countries must be clean and not exceed contamination levels set by each country. This demand should morally and ethically apply to all States as it is unethical to export wastes to countries that forbid their import.
- 3) **Shipping companies must not load Other Paper waste (HS 4707.9) from California for export to Malaysia, Vietnam, or Taiwan.** This demand should morally and ethically apply to all States as it is unethical to export wastes to countries that forbid their import.

²⁹ Communications received through public records request. Communications provided in Appendix 2.

2. California Recycling Law SB 343, Basel Convention Requirements, and Waste Bale Grades and Codes

2.1. SB 343-- Truth-in-Labeling Law

Signed into law in 2021, California Senate Bill 343 Truth-in-Labeling for Recyclable Materials is intended to prohibit the use of misleading recycling claims on non-recyclable products and packaging. California law SB 343 defines for the public what “recyclability” means. Among other requirements, it requires that waste bales created by MRFs be “defined streams” that are “consistent with the requirements of the Basel Convention.”³⁰

*“(B)(i) The material type and form is sorted into defined streams for recycling processes by large volume transfer or processing facilities, as defined in regulations adopted pursuant to Section 43020, that process materials and collectively serve at least 60 percent of recycling programs statewide, **with the defined streams sent to and reclaimed at a reclaiming facility consistent with the requirements of the Basel Convention.**”*

2.2 The Basel Convention, the OECD, and the European Court of Justice]

Respecting National Import Prohibitions

At an overarching fundamental level, the Basel Convention defines hazardous waste as either being wastes listed in the Convention's annexes I and III (Article 1,1,a) or alternatively by the national laws of the any Party involved in moving a shipment of waste (Article 1,1,b). In the first paragraph of its General Obligations (Article 4, 1, a and b) the Convention notes that countries wishing to “exercise their right to prohibit the import of hazardous or other wastes” shall inform the other Parties of their decision and Parties must then respect this prohibition. Since SB 343 requires “*that defined streams be sent to and reclaimed at a facility consistent with the requirements of the Basel Convention,*” then SB 343 effectively requires that defined streams be sent to and reclaimed only at a reclaiming facility that is allowed to import such wastes under national law. As we have noted, many of the importing countries ban the import of such plastic-contaminated, mixed paper waste. Thus, we note a clear violation of SB 343.

Respecting Party to non-Party Trade Ban for all Basel Controlled Wastes

Further, the Basel Convention, in its recent establishment (2019) of the new plastic waste categories (B3011, A1320 and Y48), created clear distinctions between waste streams in large part based on the improved chances of environmentally sound recyclability when plastics are pure single polymers and are not mixed with other polymers or non-plastic material (B3011), versus (Y48) which contains mixed polymers or otherwise contaminated with non-plastic wastes (e.g. paper, metal) (Y48). A strong case can be made that aseptic and gable-top wastes, due to the plastic composites or laminates (often as much as 25%) are in fact Y48 plastic waste, as by definition it is plastic waste contaminated with paper, and metal foil. Considered as Y48, aseptic packaging waste, including that mixed with other mixed paper should be considered a Basel controlled waste and therefore, it would be illegal for a Basel Party such as Malaysia or Thailand to import it from a non-Party such as the United States due to Article 4, 5 Party to non-Party trade prohibition, which can only be overridden by a valid Article 11 side agreement (such as the OECD Council Decision for trade in recyclable waste between OECD member states).

³⁰ California Code, [Public Resources Code - PRC § 42355.51](#)

Even if one were to make the case that the relevant Basel waste stream for aseptic packaging waste is B3026 (composite packaging), this would not be seen as correct due to the fact that the stream is mixed with other sources of paper waste (B3020 (paper waste)). Mixtures of different waste codes are not foreseen by the Basel Convention. Such a mixture would more likely fall under Y46 -- the more broad category of "Wastes collected from households".

But even if one wished to argue that the aseptic carton waste was mixed into paper bales were neither Y48 or Y46, but B3020, we would then be compelled to look at the OECD decision below. This again would represent another example of SB 343 being violated, as the OECD decision is seen as an Article 11 agreement under Basel.

Implications of Mixing of Basel Waste Streams

Basel makes a clear distinction between B3020 (mixed paper wastes) and B3026 (which is the result of pre-treating aseptic types of containers made from composite materials). Thus, the notion of intentionally mixing composite containers into B3020 (paper waste) should be considered highly suspect and contrary to fundamental principles of the Basel Convention, not to mention other waste management regimes. The concern stems in large part from the undermining of the waste management hierarchy as well as the definition of Environmentally Sound Management under the Convention. The listing B3026 notes within it that the substreams must be "inseparable," including plastic and aluminum, thus rendering them very difficult to recycle and forcing a management method lower in the waste management hierarchy, such as "waste to energy" or landfilling.

Mixing the less recyclable stream (B3026) with the recyclable stream (B3020) would not be desirable from the waste management hierarchy principle, which has been embraced by the Convention (see Decision 10/2 establishing the ESM Framework Guideline, among other instances). It also does not fit well with the definition of Environmentally Sound Management, which involves "taking all practicable steps to ensure that hazardous wastes and other wastes are managed in a manner which will protect human health and the environment against the adverse effects of such wastes" (Article 2.8). Avoiding a mixing of this kind (e.g. by not mixing) would be considered "taking a practicable step". Not taking this step to avoid mixing would therefore not be ESM, which is a fundamental requirement of the Basel Convention, and yet another example of being "*inconsistent with the requirements of the Basel Convention*."

OECD Council Decision Legal Obligation of the United States

For the United States there exists is an obligation not to engage in such mixing which is found in the **OECD Decision of the Council on the OECD Legal Instruments Control of Transboundary Movements of Wastes Destined for Recovery (OECD/LEGAL/0266)** -- one of the prime Article 11 Agreements recognized and authorized by the Basel Convention (in Article 11) and one to which the US is a Party. That agreement has adopted the Basel listings for B3020 (paper waste) and B3026 (pre-processed composite packaging waste). The OECD decision provides greater clarity in (Section B, 8) regarding mixing and requires that a mixture of two or more Green-listed (non-hazardous) wastes shall be subject to the Green control procedure, *provided the composition of this mixture does not impair its environmentally sound recovery*; and if it does impair recyclability, it must be controlled as an "amber listed" (hazardous) waste requiring prior-informed-consent (and of course triggering the Party to non-Party ban for controlled Basel wastes. It is common knowledge that adding plastic and metal foil to

paper waste will impair environmentally sound recovery, meaning that the waste becomes more problematic and thus invoking the strict prior-informed consent rules of the "amber" control procedure. Both of these are "Green listed wastes", which should not be mixed due to the impairment of recycling, and if they are, their trade must be strictly controlled. While technically the OECD accord only applies to trade between OECD countries, it would be unthinkable for the US to apply more strict policies for trade with other OECD countries than it would with non-OECD countries. And yet it is clear that the OECD forbids this form of mixing prior to export. The linkage between the OECD Council Decision with the Basel Convention by virtue of Basel's Article 11 makes this OECD violation yet another violation of SB 343 of California due to a violation being inconsistent with Basel's granting legal status to Article 11 agreements.

Also of note is Case C-654/18 (*Interseroh*, 28 May 2020), of the European Court of Justice. In this case it was ruled that under the European Waste Shipment Regulation, which implements the Basel Convention for the European Union's 27 Member States, mixed paper waste can only qualify for the simplified green-list procedure if it consists of *ordinary recyclable paper and cardboard grades*. If the load contains *laminated or composite packaging such as beverage cartons (e.g. Tetra Paks)*, it cannot be shipped under green-list rules. The exporter must also prove that any contamination does not prevent *environmentally sound recycling*. When authorities disagree on classification, the shipment must be treated as *amber-list waste, subject to full prior notification and consent procedures*.

2.3 Paper Waste Bale Grades and Codes

International Shipping Codes:

HS 4707: Recovered (waste and scrap) paper and paperboard:³¹

- **HS 4707.1:** Unbleached kraft paper or paperboard or corrugated paper or paperboard. This category includes cardboard bales sorted from household curbside recycling bins.
- **HS 4707.2:** Other paper or paperboard, made mainly of bleached chemical pulp, not colored in the mass. This category includes sorted office paper (SOP).
- **HS 4047.3:** Paper or paperboard made mainly of mechanical pulp. This category includes commercial and production paper scrap.
- **HS 4707.9:** "Other Paper" waste (sorted and unsorted) and scrap paper and paperboard: Other Paper is the category that covers paper waste placed in mixed household curbside recycling bins. In their SB 343 Material Characterization Reports, CalRecycle combined "old newspaper: (ONP) with Mixed Paper into one bale type."³²

³¹ [Harmonized Tariff Schedule of the United States](#), accessed on September 8, 2025

³² CalRecycle, [SB 343 Material Characterization Study Final Findings 2023/2024](#), April 2025

Recycling Industry Paper and Paperboard Bale Grade Codes (per ISRI-ReMA)

Aseptic and Gable-Top cartons have their own separate paper grade specification, designated as Grade 52 by the Institute of Scrap Recycling Industries (ISRI) now called ReMA. This is distinct from Grade 54, or Mixed Paper.

Grade 52 Aseptic Packaging and Gable-Top Cartons: “Consists of liquid packaging board containers including empty, used, polyethylene (PE)-coated, printed one-side aseptic and gable-top cartons containing no less than 70% bleached chemical fiber and may contain up to 6% aluminum foil and 24% PE film. Prohibitive Materials may not exceed 2%. Outthrows plus prohibitives may not exceed 5%.”³³ Grade 52 cartons are included in HS Code 4707.9.

Grade 54 Mixed Paper: “Consists of all paper and paperboard of various qualities not limited to the type of fiber content, sorted and processed at a recycling facility. Prohibitive Materials may not exceed 2%. Outthrows may not exceed 3%.”³⁴ Grade 54 Mixed Paper is included in HS Code 4707.9.

Aseptic and Gable-Top cartons are considered contamination in Grade 54 bales because they are not only fiber but have up to 24% plastic and 6% metal content and create unwanted contamination for paper recyclers.³⁵ This is why a separate paper grade specification was created for aseptic and Gable-Top cartons.³⁶

There are no specific HS shipping codes for composite wastes made of paper, plastic, and metal. Since the majority material in aseptic cartons is paper, aseptic carton waste is considered Other Paper (HS4707.9) waste.

3. California’s Mixed Paper Waste Exports to Asian Countries

California exports massive amounts of Other Paper (HS 4707.9) waste to countries with high plastic pollution rates that do not have the capacity to collect and recycle their own plastic and paper, including to many non-OECD countries in Asia and Central America and to Mexico.

Mixed Paper Waste: Table 1 shows the total amount of Other Paper waste exported by the U.S. and California in 2024 and 2025 (through July) to top receiving countries. The data source is the official U.S. Trade Online Database.³⁷ In 2024, California exported 364,804 tonnes of Other Paper waste to non-OECD countries.

³³ IsriSpecs.org, “[Aseptic Packaging and Gable-Top Cartons](#),” accessed on September 7, 2025

³⁴ IsriSpecs.org, “[Mixed Paper](#),” accessed on September 7, 2025

³⁵ Leif, “[Why carton recycling has stalled in one state](#),” Resource Recycling, May 20, 2022

³⁶ Washington State Recycling Association, [Recovery of Post-Consumer Cartons](#), May 18, 2025

³⁷ U.S. Census Bureau, [U.S. Trade Online Database](#), accessed on September 8, 2025

Table 1: 2024 and 2025 U.S. and California Mixed Paper (HS4707.9) Waste Exports to Top Receiving Countries³⁸

Selected Countries	U.S. Other Paper Waste Exports (HS4707.9) (Metric Tonnes)		California Other Paper Waste Exports (HS4707.9) (Metric Tonnes)	
	2024	2025 through July	Total 2024	2025 through July
World Total	1,330,726	966,982	387,782	225,710
Non-OECD	1,753,567	848,398	364,804	216,251
Canada	376,722	102,962	0	0
India	517,215	365,080	8,518	2,611
Indonesia	182,663	96,922	102,445	63,995
Malaysia	225,943	152,220	134,903	103,157
Mexico	101,817	73,101	15,089	6,815
Taiwan	49,145	17,378	39,247	9,798
Thailand	69,188	42,217	31,737	14,382
Vietnam	21,627	34,283	13,988	14,969

4. Asian Country Bans and Restrictions on Paper Waste Imports

4.1 Country Laws on Paper Waste Imports

Table 2 presents the laws on paper waste imports by countries who have historically been the primary destinations of California's mixed paper and plastic wastes. The mean quality of California's mixed paper waste bales is compared to the country's laws in Section 4.2

³⁸ U.S. Census Bureau, [U.S. Trade Online Database](#), accessed on September 8, 2025

Table 2: Paper Waste Import Regulation by Country: Key Elements

Country	Paper Waste (HS 4707.9) Import Regulation
China	Banned: Import of Other Paper HS4707.9 from all countries in 2018 ³⁹
India	1% maximum contamination in all paper and OCC waste imports ⁴⁰
Indonesia	2% maximum contamination in all paper and OCC waste imports ⁴¹
Malaysia	Banned: Import of Other Paper HS4707.9 from all countries in 2022 ⁴²
South Korea	Banned: Import of mixed paper waste ⁴³
Taiwan	Banned: Import of mixed paper wastes ⁴⁴
Thailand	2% maximum contamination in all paper and OCC waste imports ⁴⁵
Vietnam	Banned: Import of Other Paper HS4707.9 from All Countries in 2022 ⁴⁶

Thailand recently reduced the contamination limit of imported paper waste citing the U.S. as the top problem. According to Thailand's newspaper The Nation, "the United States is the leading exporter of recycled paper to Thailand. However, many shipments have been found to contain significant amounts of non-paper materials, classifying them as municipal waste. To address this, the Pollution Control Department (PCD) has issued new standards limiting non-paper contaminants in imported waste paper to no more than 2% for sorted paper and 3% for mixed paper."⁴⁷

In October 2025, China announced a ban on the import of "dry pulp" OCC due to high contamination.⁴⁸ This ban is expected to severely impact the export of OCC from the U.S. to countries that have intermediate pulping operations for processing U.S. OCC and paper waste into pulp for shipment to China. In effect, the restrictions placed on U.S. mixed paper waste exports are now being extended to U.S. cardboard exports.

Violations of Malaysia's Other Paper Waste (HS 4707.9) Ban: Despite Malaysia's total ban on Other Paper waste (HS4707.9) imports since 2022, U.S. waste companies continue to export Other Paper waste to Malaysia. Figure 1 shows that California is by far the largest state exporter and accounts for 67% of the Other Paper waste exported by the U.S. in 2025 (January through July).

³⁹ Clarity, [China Confirms New Contamination Level for Waste Imports](#).

⁴⁰ Pyzyk, "[India to enforce 1% contamination rate on paper imports, conduct random inspections](#)," January 15, 2020

⁴¹ Basel Action Network, "[Indonesia to allow waste imports with 2% contamination limit](#)," July 19, 2021

⁴² EnvilienceAsia, "[Malaysia revised order on import prohibition](#)," March 9, 2022.

⁴³ Daiwa Shiro Trading, "[South Korea to phase out industrial waste imports in 2030](#)," March 22, 2021

⁴⁴ Lin, "[New waste plastic, paper import rules to take effect](#)," October 2, 2018.

⁴⁵ REB Market Intelligence, "[Thai Government and Siam Kraft Industry agree 2% contamination limit on waste paper imports](#)," September 13, 2021

⁴⁶ Staub, "[Another Asian country bans imports of mixed paper](#)," November 3, 2020.

⁴⁷ The Nation, "<https://www.nationthailand.com/sustainability/net-zero/40050095> Thailand sets new standards for paper waste imports to promote sustainable recycling," May 16, 2025.

⁴⁸ McNees, "[Chinese recycled pulp import restrictions raise concern](#)," Recycling Today, October 24, 2025.

Figure 1: 2025 U.S. Paper Waste Exports to Malaysia by State (January through July 2025)

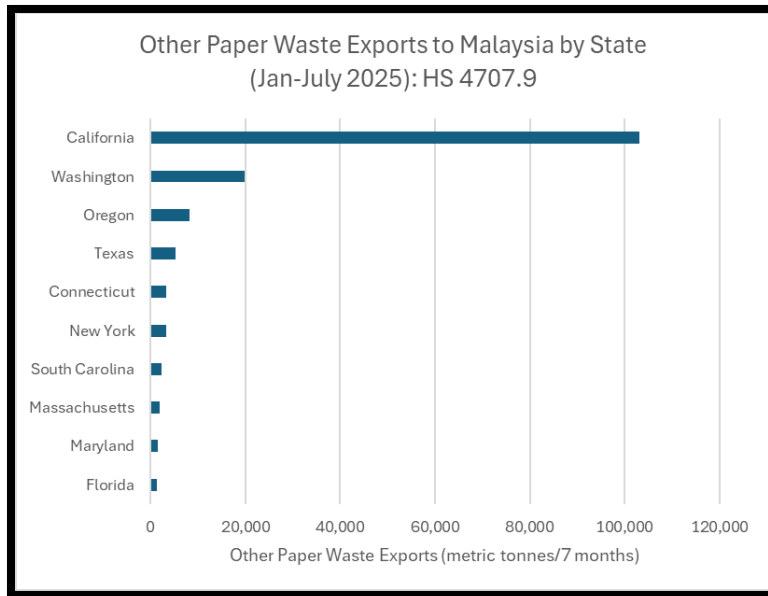
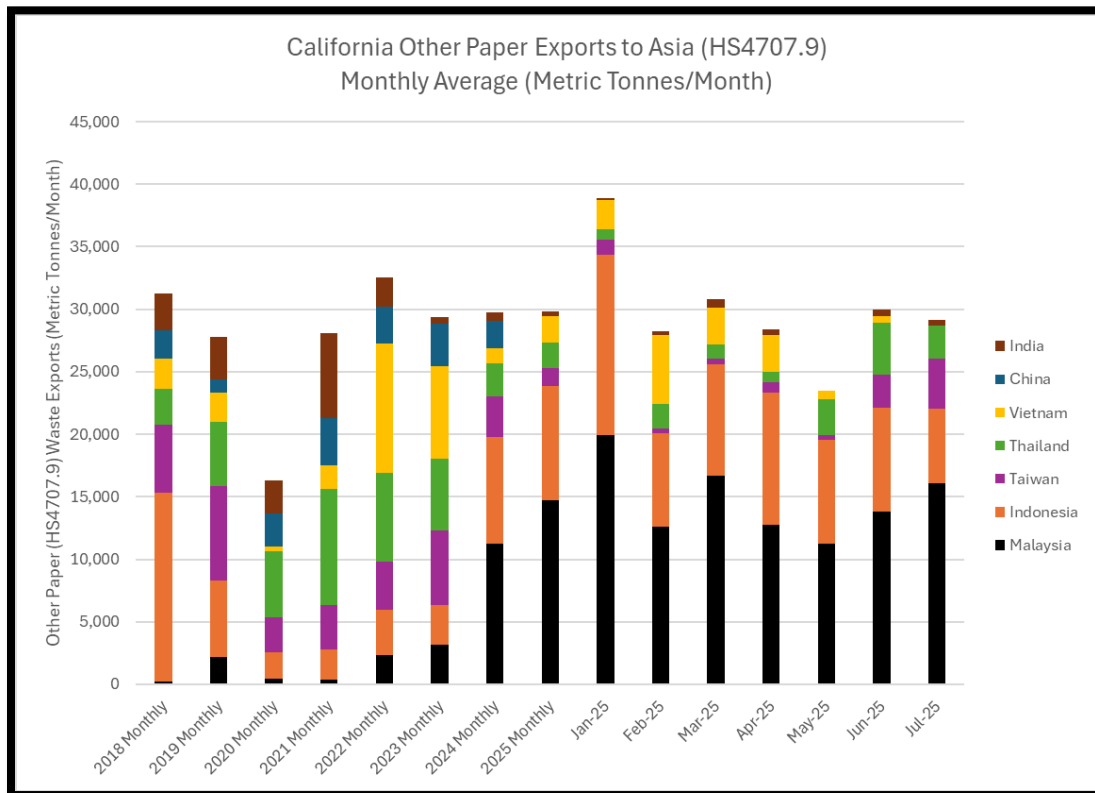


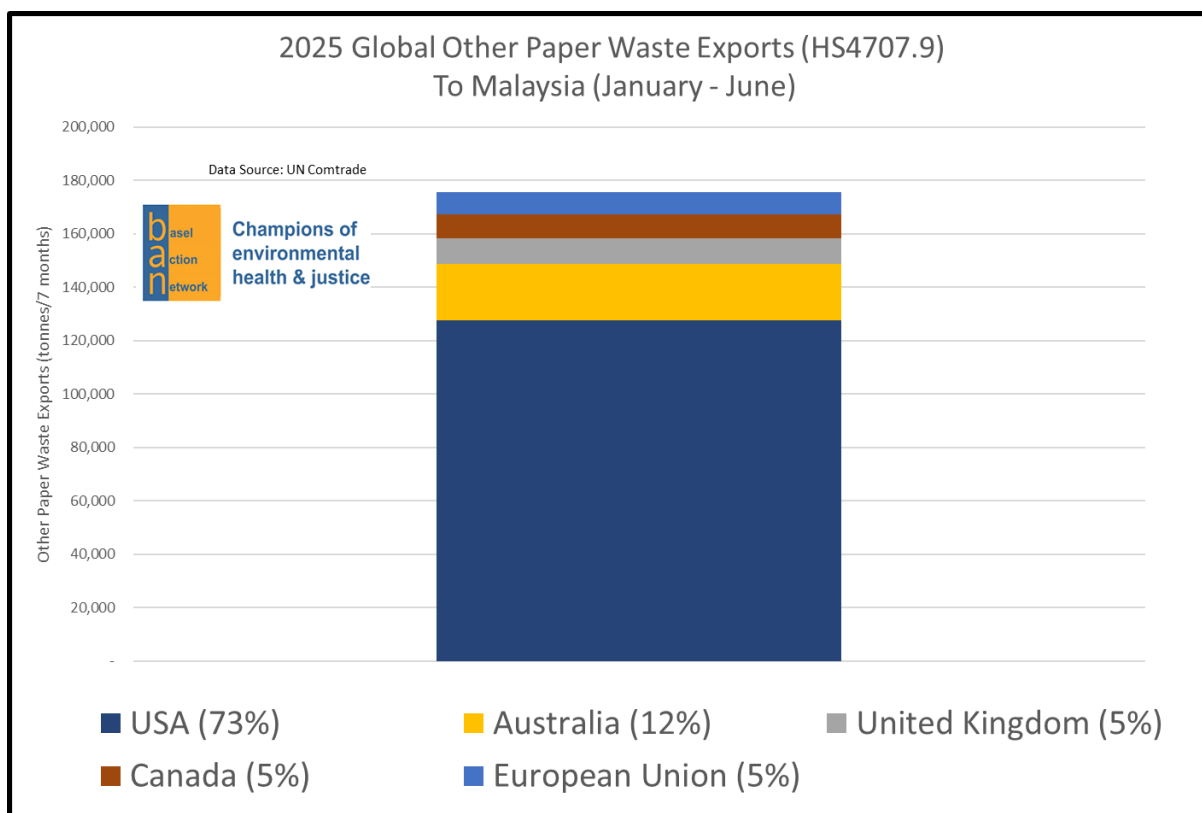
Figure 2 shows that since Malaysia enacted its ban on Mixed Paper (HS4707.9) imports in 2022, California has increased exports of Other Paper (HS 4707.9) waste from an average of 365 tonnes/month (2021) to an average of 14,737 tonnes/month in 2025.

Figure 2: California's Exports of Mixed Paper to Asia by Monthly Average



It's worth noting that most other countries are respecting Malaysia's ban on Other Paper (HS4707.9) waste and the U.S. the largest exporter by far. Figure 3 shows that the U.S. accounts for 73% of the banned mixed paper waste (HS 4707.9) being imported into Malaysia. Since California accounts for 67% of U.S. exports, this means that California alone accounts for 49% of the illegal global imports of mixed paper waste entering Malaysia.

Figure 3: Global Exports of Mixed Paper to Malaysia in 2025 (January to June)



4.2 Comparison of California Paper Waste Bale Composition and Import Country Laws

The 2025 SB 343 Final Report includes bale composition data for old corrugated cardboard (OCC) and a combined old newspaper and mixed paper streams (ONP & Mixed Paper).⁴⁹

Table 3 shows that mean OCC and ONP & Mixed Paper bales produced in California MRFs have high contamination rates:

- OCC Total contamination = 6%
- ONP and Mixed Paper Total contamination = 17%

California's OCC and ONP & Mixed Paper bales do not achieve the quality allowed for import into the four countries that have not explicitly banned paper imports: China, India, Indonesia, and Thailand. If any California MRFs are exporting OCC or ONP & Mixed Paper bales to India, Indonesia, Thailand or countries with contamination limits, then the MRFs are breaking the laws of the receiving countries.

⁴⁹ CalRecycle, [SB 343 Material Characterization Study Final Findings 2023/2024](#), April 2025

Table 3: Percent of Material Type and Form (MT&F) in Outflow (Mean)⁵⁰

MT&F Category	OCC (2 Samples)	ONP & Mixed Paper (44 Samples)
F01 Cardboard/ Old Corrugated Containers (OCC)	91	29
F02 White Office Paper and Mail	0	10
F03 Newspaper and Newspaper Inserts	0	9
F05 Paper Bags and Kraft Paper	0	2
F06 Folded Paper Containers and Other Paperboard Packaging	3	10
F07 Other Mixed Paper	1	13
F08 Magazines and Catalogs	0	8
Total Contamination	6	17
F10 Composite Food Service and Paper Packaging	0	4
F12 Remainder Composite Fiber	0	2
Other Rare Items	6	9
F11 Uncoated Soiled Fiber Products	0	1
X12 Remainder/ Composite Mixed Material Multi-Use	0	1

5. Trackers Prove that California Paper Exports are Contaminated with Plastic Waste

The tracker studies were led by volunteers. Links to locations on Google Maps are given. Volunteers lead tracking investigations across the world to prove that certain product recyclability claims are false, stop greenwashing of single use plastics, and stop costly contamination in curbside recycling bins.⁵¹ As detailed in the State of California’s lawsuit against ExxonMobil, false recyclable claims and labels harm Californians by increasing contamination in curbside recycling bins which increase recycling service costs.⁵²

⁵⁰ CalRecycle, [SB 343 Material Characterization Study Final Findings 2023/2024](#), April 2025

⁵¹ Metz, “[CBS Mornings: Starbucks promotes recycling to customers but many plastic cups end up in the trash](#),” December 2, 2024.

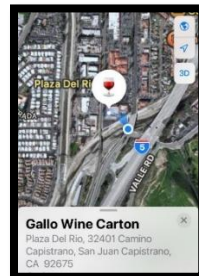
⁵² California Department of Justice, THE PEOPLE OF THE STATE OF CALIFORNIA, ex rel. ROB BONTA, ATTORNEY GENERAL OF CALIFORNIA, Plaintiff, v. EXXON MOBIL CORPORATION, Defendants, September 24, 2024. Available at: <https://oag.ca.gov/news/press-releases/attorney-general-bonta-sues-exxonmobil-deceiving-public-recyclability-plastic>

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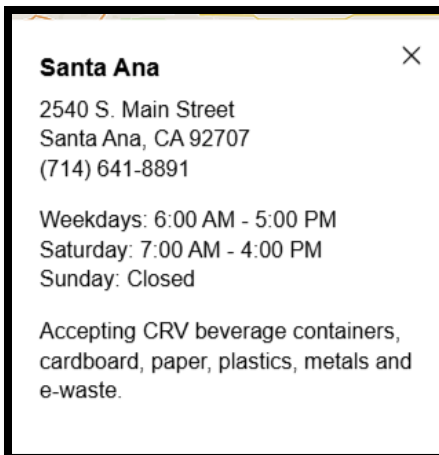
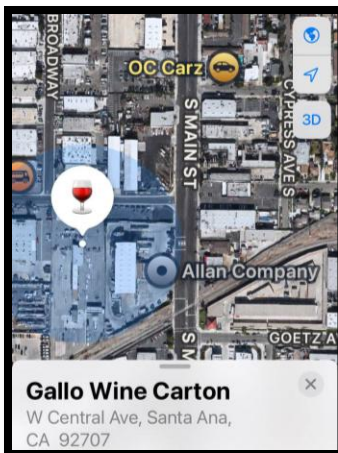
5.1 Tracker Report: Export of Gallo Aseptic Carton to a Rural Contaminated Plastic Waste Site in Thailand

Summary: Instead of being recycled, the Gallo wine aseptic carton was exported to a paper mill in Thailand where it appeared to be separated and dumped at a contaminated plastic waste site in a rural area.

1. **Tracker Placement: May 17, 2025:** An Apple AirTag was glued inside of a Gallo wine aseptic carton. A red wine glass icon was assigned to identify this tracker.
2. **Tracker Deployment: May 17, 2025:** The Gallo wine aseptic carton was returned to the [Sunset Recycling California CRV redemption center](#) in San Juan Capistrano for refund of the 25 cent deposit.



3. **Tracker Movement: May 21, 2025:** The Gallo wine aseptic carton pinged at the [Allan Company recycling center in Santa Ana, California](#). Allan Company is a material recovery facility company and consolidator that accepts a variety of household wastes including mixed paper and cardboard.⁵³



⁵³ [Allan Company website](#), accessed on September 11, 2025

4. **Tracker Movement: August 8, 2025:** The Gallo wine aseptic carton pinged at the [SCG \(Siam Cement Group\) paper mill and recycling factory in Kanchanaburi, Thailand](#). According to the company, SCG is a paper company that recycles paper and cardboard into new paper and paper board products at the Kanchanaburi pulping plant.⁵⁴

It appears that the Gallo wine aseptic carton was added by Allan Company to household mixed paper or cardboard bales and exported to the SCG plant in Thailand. It is not likely that segregated bales of Grade 52 cartons were shipped to Thailand because according to CalRecycle's RDRS system,⁵⁵ there are no reports of Grade 52 Carton bales shipped to Thailand or other countries in Asia. There are numerous reports of Grade 54 mixed paper and household cardboard shipped from California to Thailand.



It is likely that this shipment was not legally compliant with Thailand's import laws because Thailand has a law called "Criteria for Contaminant Levels in Imported Paper Waste" that prohibits the presence of hazardous chemicals, radioactive substances, infectious materials, and toxic community waste entirely.⁵⁶ Acceptable contamination levels are sharply restricted, with plastic, metal, glass, synthetic materials, wood, and soil limited to no more than 3% in mixed paper waste. Since aseptic wine cartons contain 30% plastic and metal, they cannot be mixed into paper bales and imported into Thailand.

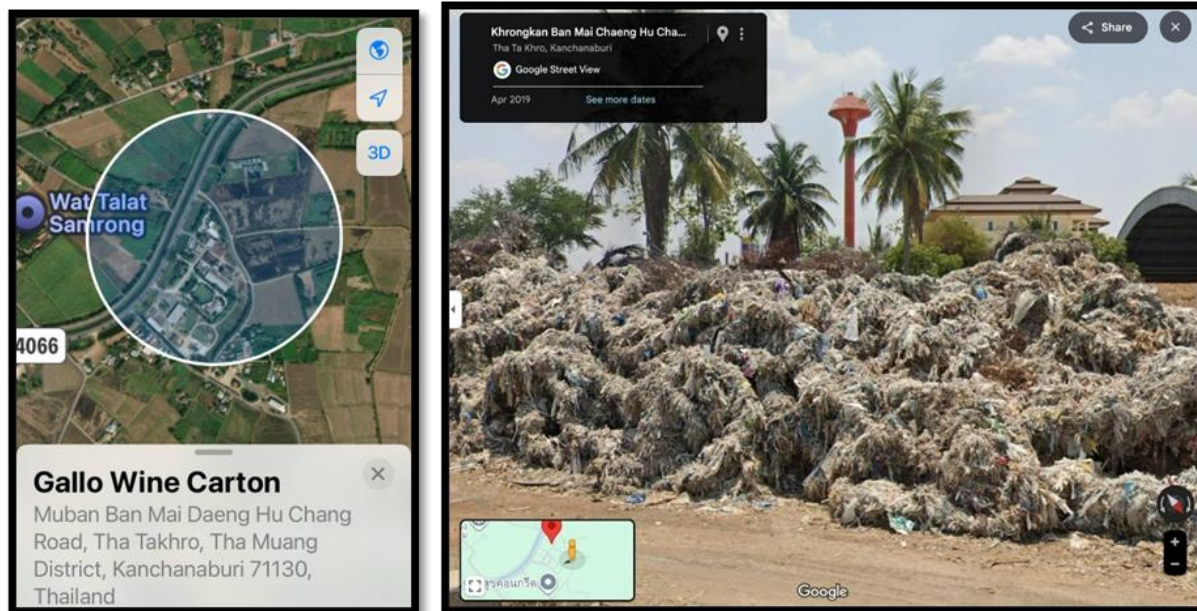
5. **Tracker Movement: August 29, 2025:** The Gallo wine aseptic carton pinged at [a small rural waste transfer site](#) that appears to be pile of plastic waste contamination that was segregated before or during processing at the SCG pulping plant. The AirTag tracker would have been destroyed if the aseptic carton was put in the intensive water-mixing process at the pulp mill. It is likely that the plastic and metal-containing aseptic carton was removed before processing and SCG did not attempt to recycle it because it would contaminate their paper pulping operation.

⁵⁴ [SCG Company: Recovered Paper website](#), accessed on September 11, 2025

⁵⁵ [CalRecycle, RDRS System](#), public records request.

⁵⁶ AsseanNow, "[Crime Stricter Controls on Paper Waste Imports Amid Surge in Smuggling](#)," May 18, 2025

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The final fate of the aseptic carton after arriving at the rural waste site is not known because the tracker stopped pinging at the rural waste site. Based on the [photo of the site found on Google maps](#), the plastic waste pile appears to be highly contaminated and very poor quality and not possible to be recycled.

The surrounding area is agricultural with banana and sugar cane farming. It's possible that the plastic waste was burned for disposal or as fuel for industry in the local area.⁵⁷ When the plastics and metals are burned, toxic air pollution (including dioxins and furans) is emitted, and it settles on the nearby farms. Scientific proof of toxins entering the food chain from burning of imported plastic waste contamination in paper has been shown by IPEN in Indonesia.⁵⁸ Studies have also proven that toxins emitted from waste burning in rural areas are entering the food supply in Thailand.⁵⁹

⁵⁷ Campbell, "[Thailand Is Tired of the Noxious Fumes From Recycling Your Trash](#)," November 11, 2022

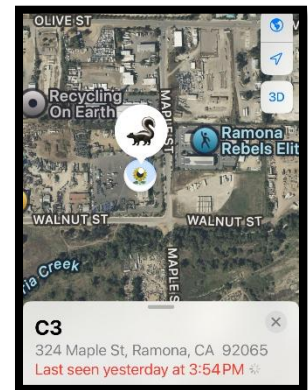
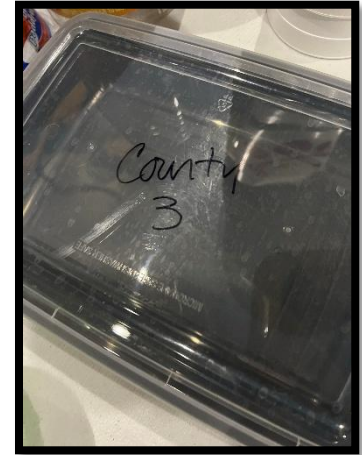
⁵⁸ IPEN, "[Plastic Waste Poisons Indonesia's Food Chain](#)," November 13, 2019

⁵⁹ Arnika, "[Two New Studies Revealed POPs Pollution across Thailand](#)," November 23, 2017

5.2 Tracker Report: Export of Large Polypropylene (PP5) Food Trays to Paper Mill in Malaysia

Summary: Instead of being recycled, the PP5 food trays were exported to a paper mill in Malaysia where they appeared to be separated and dumped nearby.

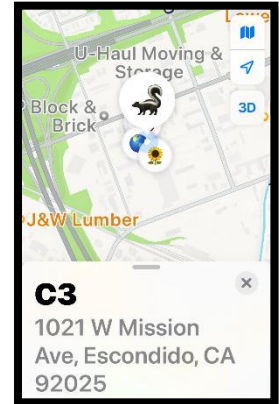
1. **Tracker Placement: October 16, 2024:** An Apple AirTag was glued between two large black polypropylene (PP5) food trays with a clear lid that were sourced from a takeout order at a restaurant. The skunk icon was used to identify this C3 tracker. The PP5 food trays are accepted for recycling by the local curbside waste company which transfers recycling materials to a company called EDCO.⁶⁰ Since there are no U.S. factories that want to buy and recycle California's polypropylene waste,⁶¹ the intent of this deployment was to identify where the PP5 food trays went.
2. **Tracker Deployment: October 23, 2024:** The PP5 food trays was placed in a household curbside recycling bin in [Ramona in San Diego County](#).
3. **Tracker Movement: November 7, 2024:** The PP5 food trays pinged at the [Ramona Disposal Transfer Station](#).



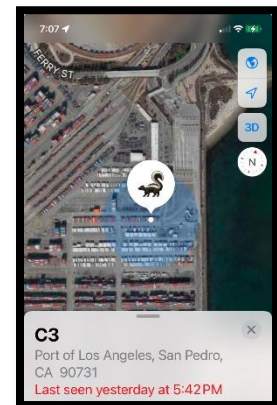
⁶⁰ [EDCO/Ramona Curbside Recycling Acceptance List](#), accessed on September 14, 2025

⁶¹ The Last Beach Cleanup, [SB 343 Survey](#)

4. **Tracker Movement: November 8, 2024:** The PP5 food trays pinged at the [EDCO Escondido Resource Recovery MRF](#). EDCO Company is a material recovery facility company that accepts a variety of household wastes including mixed paper and cardboard.⁶²



5. **Tacker Movement: November 14, 2024:** The PP5 food trays pinged at the [Port of Los Angeles in San Pedro](#). Port of Los Angeles is a major port for exporting paper and plastic waste to Asia.⁶³



6. **Tracker Movement: January 17, 2025:** The PP5 food trays pinged at the [ND Paper Mill in Bentong, Malaysia](#). According to the company, ND Malaysia is a paper company that recycles paper and cardboard into new paper and paper board products at the Bentong pulping plant.⁶⁴

It appears that the PP5 food trays were “sorted” by EDCO into household mixed paper or cardboard bales and exported to the ND plant in Malaysia. According to



⁶² [EDCO Escondido Resource Recovery website](#), accessed on September 14, 2025

⁶³ Paben, “[How scrap plastic exports shifted at largest U.S. port district](#),” Resource Recycling, April 17, 2018

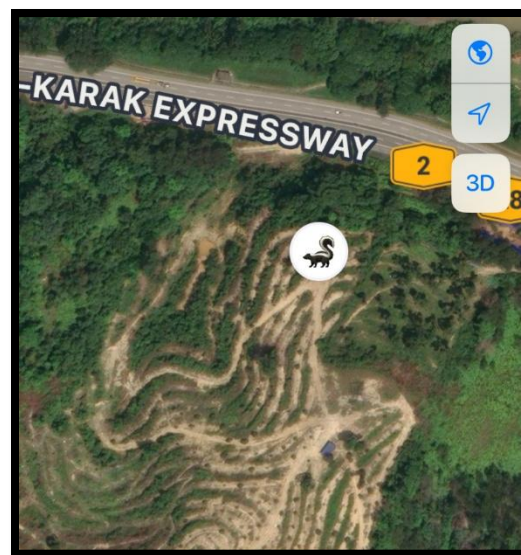
⁶⁴ [ND Paper website](#), accessed on September 14, 2025

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CalRecycle's RDRS system,⁶⁵ there are numerous reports of Grade 54 mixed paper and household cardboard shipped from California to Malaysia.

If the shipment was Other Paper HS4707.9, it was not legally compliant with Malaysia's import laws because Malaysia has banned Other Paper HS4707.9 imports. If the shipment was cardboard (Hs4707.1), it was highly likely that the shipment was not in compliance with ISRI's specifications that Prohibitive Materials may not exceed 1% and Outthrows plus prohibitives may not exceed 5%.⁶⁶

7. **Tracker Movement: April 29, 2025:** The PP5 food trays pinged at the [dump site adjacent to the ND Malayaia pulp mill](#). The AirTag tracker would have been destroyed if the plastic trays were put in the intensive water-mixing process at the pulp mill. It is likely that the PP5 food trays were removed before processing and ND Malaysia did not attempt to recycle them because it would contaminate their paper pulping operation.



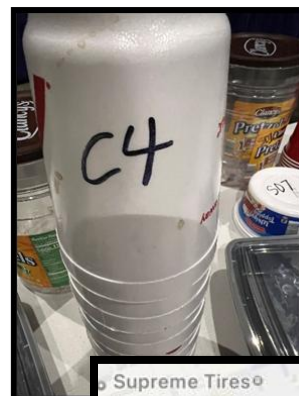
⁶⁵ [CalRecycle, RDRS System](#), public records request.

⁶⁶ ISRIspec.org, [Old Corrugated Containers \(OCC\), Grade 11](#), accessed on September 14, 2025

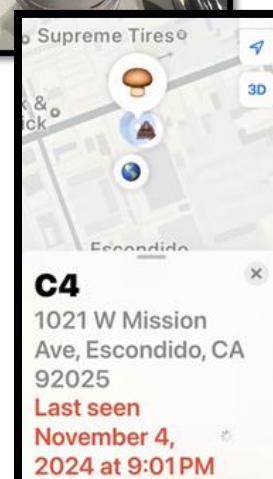
5.3 Tracker Report: Export of Expanded Polystyrene Foam (EPS Foam) Cups to Paper Mill in Malaysia

Summary: Instead of being recycled, the EPS foam cups was exported to a paper mill in Malaysia.

1. **Tracker Placement: October 16, 2024:** An Apple AirTag was glued inside of a stack of six EPS foam cups that were sourced from fast food restaurants. The mushroom icon was assigned to this C4 tracker. The EPS foam cups are accepted for recycling by the local curbside waste company which transfers recycling materials to a company called EDCO.⁶⁷ Since there are no U.S. factories that recycle EPS foam cups,⁶⁸ the intent of this deployment was to identify where the EPS foam cups went.
2. **Tracker Deployment: October 23, 2024:** The EPS foam cups were placed in a curbside recycling bin in [Ramona in San Diego County](#).

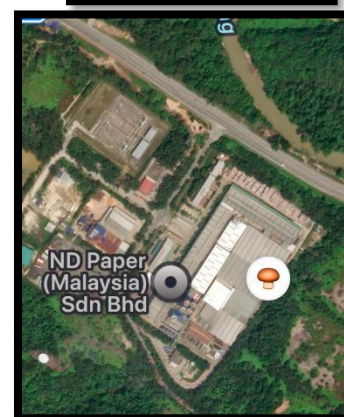


3. **Tracker Movement: November 4, 2024:** The EPS foam cups pinged at the [EDCO Escondido Resource Recovery MRF](#). EDCO Company is a material recovery facility company that accepts a variety of household wastes including mixed paper and cardboard.⁶⁹
4. **Tracker Movement: January 11, 2025:** The EPS foam cups pinged at the [ND Paper Mill in Bentong, Malaysia](#). According to the company, ND Malaysia is a paper company that recycles paper and cardboard into new paper and paper board products at the Bentong pulping plant.⁷⁰



It appears that the EPS foam cups were “sorted” by EDCO into household mixed paper or cardboard bales and exported to the ND plant in Malaysia. According to CalRecycle’s RDRS system,⁷¹ there are numerous reports of Grade 54 mixed paper and household cardboard shipped from California to Malaysia.

If the shipment was Other Paper HS4707.9, it was not legally compliant with Malaysia’s import laws because Malaysia has banned Other Paper HS4707.9 imports. If the shipment was cardboard



⁶⁷ [EDCO/Ramona Curbside Recycling Acceptance List](#), accessed on September 14, 2025

⁶⁸ Greenpeace, “Circular Claims Fall Flat Again,” 2022 and The Last Beach Cleanup, [SB 343 Survey](#)

⁶⁹ [EDCO Escondido Resource Recovery website](#), accessed on September 14, 2025

⁷⁰ [ND Paper website](#), accessed on September 14, 2025

⁷¹ [CalRecycle, RDRS System](#), public records request.

(Hs4707.1), it was highly likely that the shipment was not in compliance with ISRI's specifications that Prohibitive Materials may not exceed 1% and Outthrows plus prohibitives may not exceed 5%.⁷²

The final fate of the EPS foam cups after arriving pulp mill is not known because the tracker stopped pinging at the plant. The EPS foam cups are contamination in the paper pulping process and would not have been recycled with paper. Based on the fate of the PP5 food trays at the same site, the EPS foam cups could have been disposed at the nearby dump site.

6. Basis of CalRecycle's Exemption in the August 8, 2025 Update to SB 343 Material Characterization Report

Through documents provided through a public records request, communications between CalRecycle and the Carton Council of North America (Carton Council) show that CalRecycle relied on the 2023 claims of Lee and Man Paper Company that the company could recycle a combined stream of Aseptic and Gable-Top Cartons and Mixed Paper in one of their factories.⁷³ However, Lee and Man Paper Company only operates paper factories in three countries (China, Malaysia and Vietnam), all of whom have bans on Other Paper (HS 4707.9) waste imports which includes Aseptic and Gable-Top Cartons and Mixed Paper waste. CalRecycle should not have given an exemption based on this illegitimate claim. Importantly, the decision also contradicted and reversed CalRecycle's long-stated position that Aseptic and Gable-Top Cartons were a unique "defined material stream" under SB 343 and could not be added to Mixed Paper bales.

Key excerpts of communication documents are provided in this section. The referenced documents received through the public communication requests are provided in full in Appendix 1.

1. May 23, 2025: Carton Council Letter to CalRecycle claims that the WM Sacramento MRF positively sorts aseptic cartons and mixes them into paper bales

Paper screens also sort some portion of cartons onto the container line. Sacramento uses an optical sorting machine to perform an active positive sort of paper products out of the post-paper screens' container stream and those cartons are conveyed to the mixed paper line for recycling in mixed paper.

2. June 20, 2025: CalRecycle email to Carton Council states that sorting cartons into paper (Grade 54) does not constitute a "defined stream"

CalRecycle Director Zoe Heller clearly states that "the Sacramento Recycling & Transfer Station identified by CCNA adds sorted cartons into Grade 54 bales, which does not constitute a "defined stream." Director Heller recommends that the WM Sacramento MRF start segregating cartons into Grade 52 bales.

⁷² ISRIspec.org, [Old Corrugated Containers \(OCC\), Grade 11](#), accessed on September 14, 2025

⁷³ Communications received through public records request. Communications provided in Appendix 1.

Thank you for the follow up and ongoing engagement on SB 343. We have carefully reviewed CCNA's May 23rd submission and we were able to conduct outreach to large volume transfer/processor (LVTPs) facilities to verify changes in their sorting behaviors since CalRecycle's last data collection.

Two facilities, collectively serving two additional counties (Alameda and LA) now sort cartons into Grade 52 bales. However, the Sacramento Recycling & Transfer Station identified by CCNA sorts cartons into Grade 54 bales, which do not constitute a "defined stream." Therefore, the percentage of recycling programs served by facilities sorting cartons into a "defined stream" remains below the 60% threshold.

3. June 27, 2025: Carton Council email to CalRecycle argues that adding Aseptic and Gable Top cartons into Mixed Paper bales is a defined stream and requests a meeting with CalRecycle

The Carton Council references the 2023 WinnFibre letter as proof of recycling of combined carton and paper streams.

The reason we ask this question is PRC 42355.51(d)(1)(A)(i)(II) requires LVTPs to report to CalRecycle *"What material types and forms are actively recovered, and not considered contaminants, by the operation or facility?"* By requiring this reporting, we feel it is clear that the statutory intent is to allow mixed grades to be a defined stream, but with an additional criterion that LVTPs must also identify the materials they actively sort for that defined stream. In our case, this would mean that the facility is actively recovering and placing cartons in mixed paper for that LVTP to be counted. In other words, food and beverage cartons sorted into Grade 54 bales meet the intent and technical requirements of a "defined stream," as they are actively sorted by WM's Sacramento LVTP into mixed paper, which CalRecycle has confirmed is the case, are included in (and not excluded from) the recycling industry's specification for Grade 54 Mixed Paper, and are accepted in the grade and recycled into new paper products by WM's mixed paper markets. This is consistent with how cartons

We value CalRecycle's recognition of ongoing improvements in carton collection and sorting and look forward to our continued collaboration; we'd like to request a meeting to discuss the Grade 54 issue soon, so we are clear on what requirements we are working with LVTPs to meet. If possible, a meeting in the next couple of weeks would be ideal as we are working to avoid a change to the uniform national How2Recycle label that reflects CalRecycle's assertion that our products are not meeting recyclability thresholds in the state.

A letter from WinnFibre submitted to CalRecycle in 2023 illustrating the known acceptance and attestation of fiber recovery from aseptic and gable top cartons sourced from Grade 54 bales to recycle into new paper and packaging products; WinnFibre is the largest exporter of mixed paper sourced from the West Coast.

4. July 2, 2025: CalRecycle email to the Carton Council requests end markets for combined bales of aseptic cartons and mixed paper made by WM Sacramento MRF

It appears that CalRecycle had a meeting with the Carton Council on July 2, 2025, regarding carton sorting. Dan Brown followed up with an email requesting “information on the end market(s) that Sacramento Recycling & Transfer Station is sending it’s PSI-54 bales to, validating that those end market(s) accept and have appropriate equipment/processes to recycle cartons?”

From: Brown, Dan@CalRecycle <Dan.Brown@calrecycle.ca.gov>
Sent: Wednesday, July 2, 2025 1:23 PM
To: Jordan Fengel <Jordan.Fengel@cartoncouncil.org>
Subject: Quick follow-up

Hi Jordan,

Based on our discussion today, I had one quick follow-up. Do you have information on the end market(s) that Sacramento Recycling & Transfer Station is sending it’s PSI-54 bales to, validating that those end market(s) accept and have the appropriate equipment/processes to recycle cartons? I am not seeing that in the info you’ve provided previously, and based on our discussion today I think that would be really helpful as we discuss our path forward internally.

Thank you!

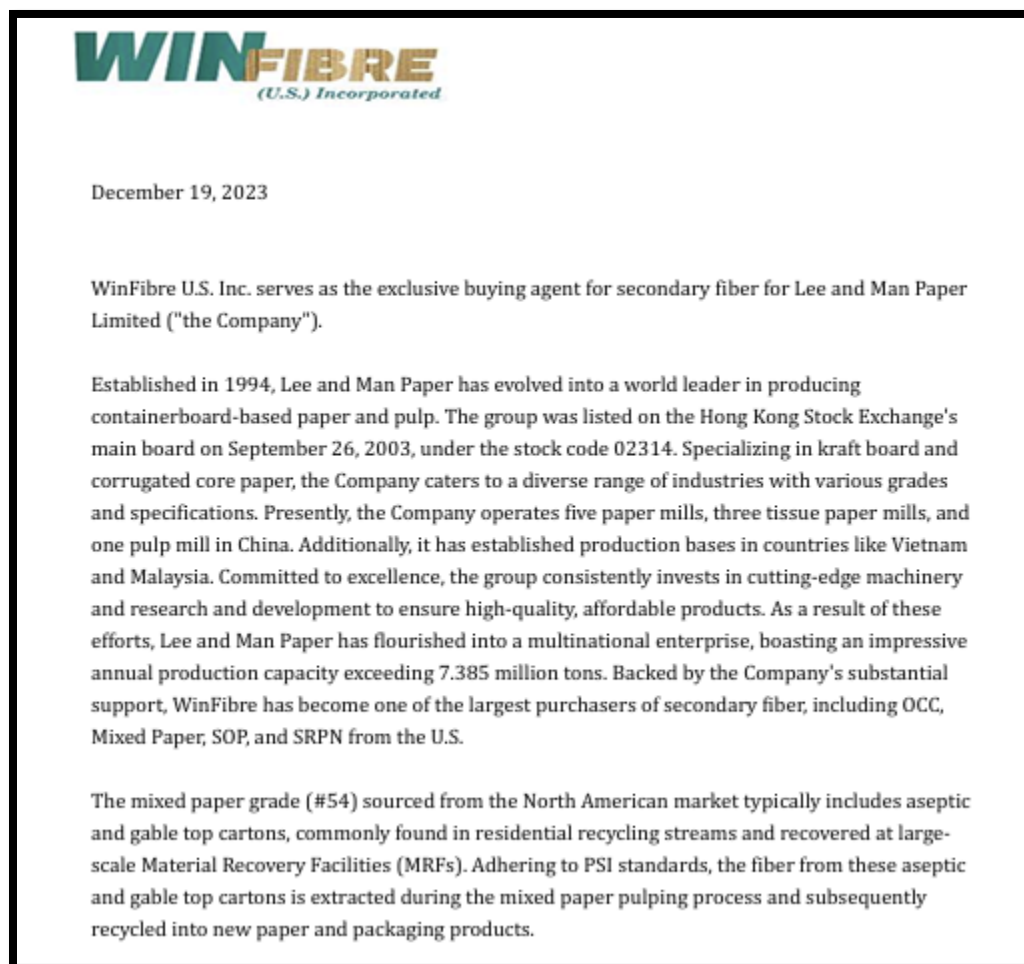
Dan Brown (he/him)
Environmental Program Manager II
Policy Development and Analysis Office

5. July 2, 2025: Carton Council email to CalRecycle stating that they could not provide specific information on buyers for WM Sacramento MRF combined carton and mixed paper bales, but referenced and attached a 2023 attestation by WinnFibre

Hi Dan,

This is an area that MRFs are still protective of and do not widely share with associations, etc., so we do not have this specific information but do know that one of their end-markets that they have sold to is WinnFibre, who also submitted information to CalRecycle back in 2023 about cartons in mixed paper.

July 2, 2025: WinnFibre Letter Attestation of Lee and Man Paper



Lee and Man Limited (Lee and Man Paper Company) has paper operations in China, Vietnam, and Malaysia.⁷⁴ As noted in Section 4, China, Malaysia, and Vietnam do not allow imports of Other Paper (HS4707.9) waste (including Cartons or Mixed Paper) from the U.S. or other countries. In Malaysia, local communities have lodged protests of the Lee and Man Paper pulping plant due to pollution cause from wastewater discharges.⁷⁵

⁷⁴ [Lee and Man Paper website](#), accessed on Sept. 7, 2025.

⁷⁵ Macaranga, "[Living Next to a Paper Recycling Behemoth](#)," September 9, 2022.

6. July 9, 2025: Carton Council email to CalRecycle referencing the WinnFibre letter and NORPAC as processors of mixed carton and paper streams.

Additionally, NORPAC and WinnFibre have both attested they purchase Grade 54 mixed paper where cartons are known to be included and accepted in their inbound feedstock, these are a couple of examples that prove that cartons within Grade 54 are part of a defined stream. The materials result in a positive yield of fiber, meeting Oregon's EPR yield mandates, and are not an outthrow or reject like PET thermoforms and pigmented bottles are at a PET reclaimer.

Key point: NORPAC, based in Oregon, clearly states on their website that they only process paper waste from Oregon and Washington.⁷⁶ Since Oregon and Washington export mixed paper waste to other countries,⁷⁷ it is clear that NORPAC does not have sufficient capacity for the states that they serve and cannot be considered a viable end market for California's paper waste. Additionally, CalRecycle's RDRS data shows no exports of California mixed paper waste to Oregon in the first quarter of 2025.⁷⁸

7. July 9, 2025: CalRecycle response to Carton Council acknowledging the Carton Council submittal

From: Brown, Dan@CalRecycle <Dan.Brown@calrecycle.ca.gov>
Sent: Wednesday, July 9, 2025 5:54 PM
To: Jordan Fengel <Jordan.Fengel@cartoncouncil.org>
Cc: Heller, Zoe@CalRecycle <Zoe.Heller@calrecycle.ca.gov>; Faith Conley <faith@weidemangroup.com>; Mark Weideman <mark@weidemangroup.com>
Subject: RE: Follow-Up on Carton End Markets and Consistency Across Materials

Good afternoon, Jordan

I appreciate the follow up and the additional items for consideration. We are continuing to evaluate the information you provided.

Thank you!

Dan

8. July 14, 2025: Carton Council email to CalRecycle

In the email, the Carton Council states that if CalRecycle does not change the 2025 CalRecycle SB 343 Final Report to include the Sacramento MRF, then aseptic cartons will not qualify for How2Recycle's "widely recyclable label."

The Carton Council again asserts that the WM Sacramento MRF is sending combined bales of Aseptic and Gable-Top Cartons and Mixed Paper waste to WinnFibre (Lee and Man). **Note that if WM Sacramento is shipping any type of mixed paper waste or aseptic cartons to the Lee and Man Paper**

⁷⁶ [Norpac Recycles website](#), accessed on September 7, 2025

⁷⁷ [US Import/Export Database](#)

⁷⁸ [CalRecycle RDRS data](#) accessed through public information request

plants in China, Malaysia, Taiwan, or Vietnam, they are breaking the laws of those countries. (See Section 4).

The Carton Council’s claim that “As we all understand” SB 343 specifically focuses on only the two elements of acceptance and sortation and does not include consideration of end markets is false. As described in Section 2.1, SB 343 specifically requires assessment of reclaiming facilities. Furthermore, in the 2025 SB 343 Final Report, CalRecycle states that assessment of reclamation facilities is required to “determine the recyclability status of any particular product or packaging.”⁷⁹

As you may be aware, How2Recycle is scheduled to make its determination tomorrow on whether to downgrade food and beverage cartons from their current ‘widely recyclable’ designation to ‘check locally.’ This potential downgrade is directly related to the status of our figures within the SB 343 Final Report. Such a change would have significant negative implications for the carton recycling industry nationwide, effectively reversing seven years of maintaining the ‘widely recyclable’ designation with How2Recycle.

As we all understand, SB 343 specifically focuses on two elements: household access and the sortation of materials into a defined stream—both of which cartons meet, particularly the sortation element, with the WM Sacramento MRF actively using an optical sorter to sort cartons from the container line into the fiber line, Grade 54 mixed paper. Consideration of responsible end markets, while critical to the integrity of the recycling system, falls under SB 54 rulemaking and is not within the scope of SB 343. In support of this, last week we spoke with WM, who confirmed that WinnFibre is their material handler for mixed paper from the Sacramento MRF. For your convenience, I have reattached the letter WinnFibre submitted to CalRecycle in 2023, attesting to their knowledge and utilization of cartons in the mixed paper they source. Additionally, CalRecycle should soon receive, if it has not already, a letter from WM outlining their vetting process for end markets, associated legal considerations, and related documentation.

9. July 18, 2025: Letter from CalRecycle to the Carton Council accepting the Carton Council’s argument that an exception should be made for adding cartons into mixed paper streams at the WM Sacramento MRF.

In granting the exception to the WM Sacramento MRF, CalRecycle Director Heller is effectively accepting the attestation of WinnFibre (Lee and Man Paper) to import combined Aseptic and Gable-Top Carton and Mixed Paper waste bales into countries that have banned such imports.

⁷⁹

In response to that request, CalRecycle conducted additional outreach and analysis to independently verify information provided by CCNA and evaluated the impact of the updated information. The results of this analysis were communicated to CCNA on June 20, 2025. In that communication, CalRecycle amended the results presented in Table 2 of the Final Report to indicate that two additional counties were served. Information provided by CCNA also highlighted technology changes at an additional facility, Sacramento Recycling & Transfer Station, allowing that facility to positively sort cartons which it then aggregated into Grade 54 (mixed paper) bales. CalRecycle communicated that counties served by this facility would not be added to the results shown in Table 2 of the Final Report.

Subsequent discussions with CCNA have requested that CalRecycle consider including counties served by Sacramento Recycling & Transfer Station in the results shown in Table 2 of the Final Report. Justifications include, but are not limited to:

- Technological investments at the facility allowing for more reliable recovery of cartons during sortation
- Education and outreach to counties served by this facility highlighting the acceptance of cartons in curbside recycling
- The availability of end markets purchasing Grade 54 bales that accept and recycle cartons

- Solely for the purposes of information published by the department pursuant to PRC section 42355.51(d)(1)(B)(iii), CalRecycle will amend the results shown in Table 2 of the final report to include the five counties served by Sacramento Recycling & Transfer Station
- CalRecycle does not, at this time, include any other counties served by LVTPs sorting cartons into Grade 54 bales in the amendments to Table 2 of the Final Report.
- CalRecycle is not making any determination of recyclability with this finding, nor is CalRecycle making a determination of the recycling rate for cartons.

11. August 8, 2025: CalRecycle published an Update Letter⁸⁰ and an Attachment 1⁸¹ to revise the SB 343 Material Characterization report.

In their public posting, CalRecycle granted an exemption to the WM Sacramento Recycling & Transfer Station MRF for sorting Aseptic and Gable-Top cartons and combining them into Mixed Paper (Grade 54) bales. CalRecycle stated “that there are end markets purchasing Grade 54 bales that accept and recycle cartons from this facility.”

⁸⁰ CalRecycle, “[SB 343 Update Letter](#),” August 8, 2025.

⁸¹ CalRecycle, “[SB 343 Attachment 1](#),” August 8, 2025

In addition, the Sacramento Recycling & Transfer Station (8491 Fruitridge Road, Sacramento) has upgraded its sorting technology and processes. It now positively sorts cartons and aggregates them into Grade 54 (mixed paper) bales. As a result, the five counties served by this facility also have been added to Table 2 of the Final Report, based on the following:

- The facility has invested in technology that improves the reliable recovery of cartons during sortation.
- Education and outreach efforts have informed the counties served that cartons are accepted in curbside recycling.
- There are end markets purchasing Grade 54 bales that accept and recycle cartons from this facility.

As described above, the one company (Lee and Man Paper) claiming to be willing to process the combination of Aseptic and Gable-Top Cartons and Mixed Paper only has factories in three countries (China, Malaysia, and Vietnam) that have banned the import of all Other Paper (HS4707.9) wastes which includes Aseptic and Gable-Top Cartons and Mixed Paper. It's also worth noting that while CalRecycle claimed that "there are end markets purchasing" the bales, no proof of purchase was provided to CalRecycle in communications and no evidence of such purchases can be found in the public domain.

Key point: CalRecycle should not have accepted the claim that Lee and Man would process the combination of aseptic cartons and mixed paper because their factories are located in countries that have banned mixed paper waste imports. CalRecycle should not have reversed their long-stated position that Aseptic and Gable-Top Cartons were a unique "defined material stream" under SB 343 and could not be added to Mixed Paper bales.

It appears that CalRecycle neglected to basic due diligence on the credibility of the claim made the North American Carton Council, Waste Management (WM), WinnFibre (broker) and Lee and Man Pulp Paper Company.

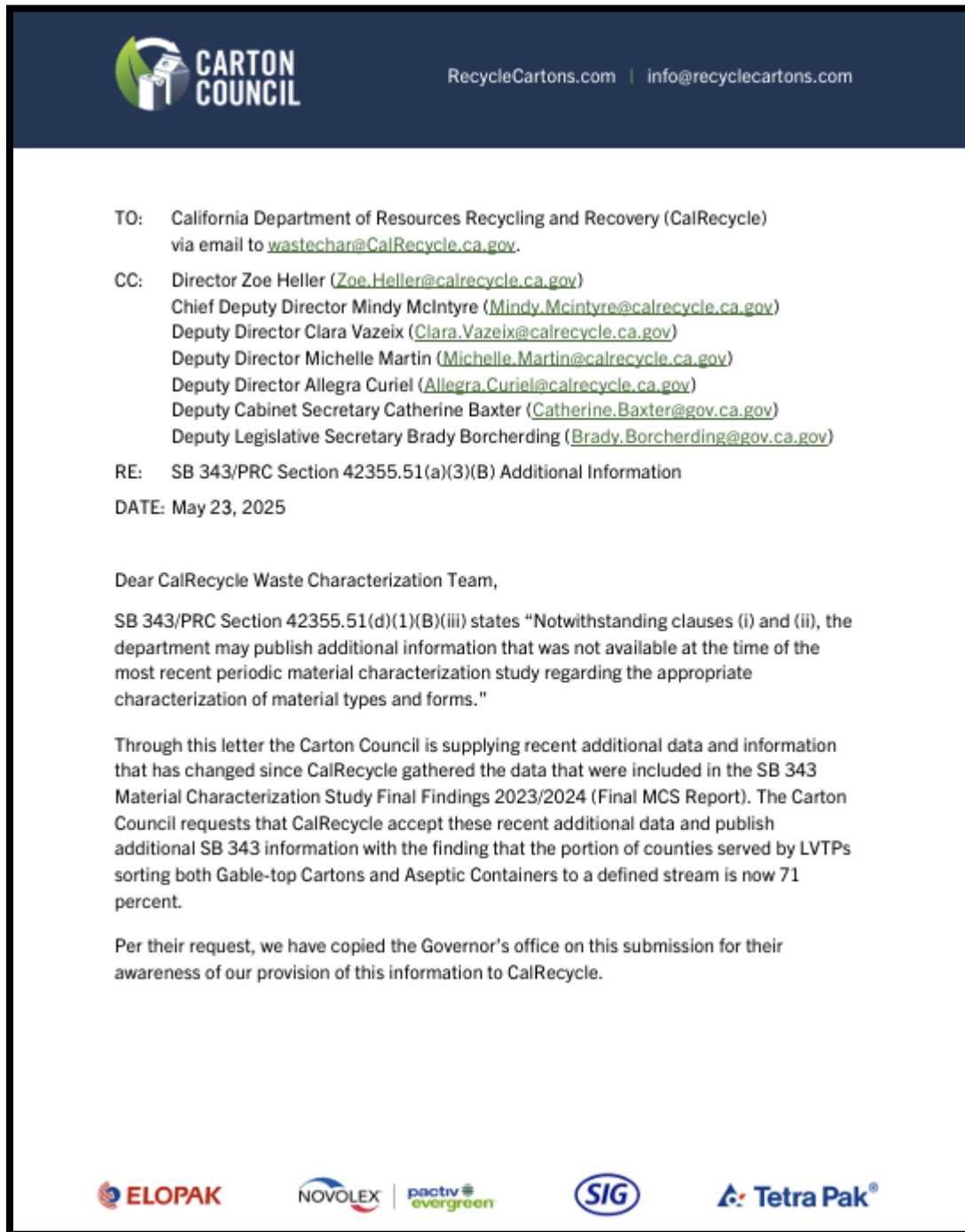
CalRecycle has previously acknowledged the harms of waste exports to other countries, stating, "Unfortunately, exporting recyclable materials to other countries does not always result in the exported materials being recycled and can also result in negative environmental, economic, and social impacts, especially if the material is contaminated or sent to a place without adequate controls or infrastructure. In some cases, contaminated recyclables are landfilled or dumped into rivers that float into the ocean and migrate into the Pacific Garbage Patch off the coast of California."⁸²

⁸² CalRecycle, "[State of Disposal and Recycling in California, Calendar Year 2021](#)"

Appendix 1: Communication Between CalRecycle and the North American Carton Council Related to Exemption for Carton Sorting into Paper Bales

These documents were sourced through a public records request to CalRecycle.

1. May 23, 2025 Letter from the Carton Council to CalRecycle





CARTON
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SB 343/PRC Section 42355.51(a)(3)(B) Additional Information | 2

LVTPs Sorting to a Defined Stream

Public Resources Code Section 42355.51(d)(2)(B)(i) requires material types and forms to be "sorted into defined streams for recycling processes by large volume transfer or processing facilities [LVTPs]...that process materials and collectively serve at least 60 percent of recycling programs statewide..."

In the SB 343 Material Characterization Study Final Findings 2023/2024 (Final MCS Report) released by CalRecycle on April 4, 2025, CalRecycle reported that it determined that X02 Gable-top Cartons - Non-CRV and X03 Aseptic Containers - Non-CRV each were sorted to defined streams by 9 LVTPs serving 16 of 34 counties included in the study, or 47 percent. The dates associated with the data on which CalRecycle made its determination were:

- April 2023 - September 2023 for LVTP facility survey data including a list of outflows produced and communities and counties served.
- Outflow composition data from:
 - August 2023 for the following 10 LVTPs: Azusa Transfer Station & MRF, Potential, City of Napa, Western Placer Waste Management Authority, Eastern Regional Material Recovery Facility, Sacramento Recycling & Transfer Station (WM), Pier96 (Recology), Tajiguas Landfill & Resource Recovery Center, GreenWaste, Visalia Transfer Station (Pena's Disposal MRF); and
 - January - February 2024 for the following 13 LVTPs: Davis Street Transfer Station, ACI Alameda County Industries Direct Transfer, Mid Valley Recycling Elm Ave., Metropolitan Recycling/Mt. Vernon Burrtec, Puente Hills (Athens), Bradley East Transfer/Sun Valley Recycling Park (WM), Ukiah Waste Solutions, Rainbow (Republic), Aqua Mansa MRF & Transfer Station, West Valley MRF & Transfer Station, Lemon Grove SANCO, Escondido SANCO, and Cold Canyon Landfill (Waste Connections).

The data on which CalRecycle based its Final MCS Report are now over one year old and some LVTPs have changed their sorting since the data were collected. Specifically:





- **Alameda County Industries (ACI) Direct Transfer** received a grant from the Carton Council to install a cartons-sorting robot and began sorting cartons into a Grade 52 cartons stream since January, 2024. Based on CalRecycle's data analysis methodology, CalRecycle would now consider this LVTP as sorting cartons for recycling. CalRecycle's file Survey_Juris_021925.csv indicates that ACI serves three counties, of which one county, Alameda County, was not served by any other LVTP sorting cartons for recycling in the Final MCS Report. Documentation that ACI has changed its sorting practices is attached as Exhibit 1. Exhibit 1 includes an email from the Chief Operating Officer of ACI confirming that they continue to recover and market cartons as Grade 52.
- **Athens Sun Valley Mat. Re. & TS (SWIS 19-AR-5581)**. This is a LVTP that appears to have participated in CalRecycle's LVTP survey, including reporting jurisdictions served (it is included in Survey_Juris_021925.csv), but it is not listed in the Survey_Outflows_Clean_021925.csv file, nor were samples taken from this LVTP. This facility has a robot supplied by the Carton Council and has produced Grade 52 bales since 2023, and continues to do so today. The Carton Council notified CalRecycle on at least two occasions before the SB 343 MCS Report was finalized that its data on this facility were incomplete or incorrect, including:
 - "CCNA Comments Pertaining to SB 343 Prelim Findings Rpt 3-25-2024.docx" submitted to CalRecycle on 3/25/2024; and
 - "CCNA Comments on SB 343 Revised Report.docx" submitted to CalRecycle on 2/18/2025.

CalRecycle's file Survey_Juris_021925.csv indicates that Athens Sun Valley serves three counties, two of which were not counted as served by any other LVTP sorting cartons for recycling in the Final MCS Report – these two additional counties include Kern and Ventura counties. Please use the documentation included in Exhibit 2 as proof that this LVTP is sorting cartons for recycling into Grade 52. Exhibit 2 includes an email from Athens' MRF Product Sales Manager confirming that they continue to recover and market cartons as Grade 52.

- **Sacramento Recycling & Transfer Station (WM)**. At the times that CalRecycle performed its (1) LVTP survey and (2) gathered outflow composition data, Sacramento did not accept cartons for recycling, but they were still placed in the





incoming stream by consumers. Because cartons were not accepted by Sacramento for recycling, Sacramento did not proactively sort them for recycling, although some were sorted by their equipment into mixed paper and were recycled. Composition data for cartons in outflow streams were collected at Sacramento August 11-14, 2023. CalRecycle subsequently calculated these scaled values for cartons at Sacramento based on the 2023 data:

Scaled value	MT&F	Outflow
1.546777	X02	ONP and Mixed Paper
none found	X03	ONP and Mixed Paper
8.467125	X02	Residuals
9.696223	X03	Residuals

These values are now obsolete and no longer valid for Sacramento because in 2024 Sacramento retrofitted its LVTP to expand its sorting capabilities and now accepts and sorts cartons for recycling. In all LVTPs some portion of cartons are directed by screens onto a mixed paper quality control sort line after which the mixed paper is deposited into a mixed paper bunker. Sacramento does not remove cartons from mixed paper either manually or using any other form of quality control equipment. Paper screens also sort some portion of cartons onto the container line. Sacramento uses an optical sorting machine to perform an active positive sort of paper products out of the post-paper screens' container stream and those cartons are conveyed to the mixed paper line for recycling in mixed paper.

CalRecycle's file Survey_Juris_021925.csv indicates that Sacramento serves six counties, five of which were not counted as served by any other LVTP sorting cartons for recycling in the Final MCS Report – these five additional counties include Glenn, Nevada, Sacramento, Shasta, and Yolo counties.

Documentation that this LVTP is now effectively sorting cartons into a defined stream is attached as Exhibit 3, which is a press release from Yolo County that identifies the addition of cartons for recycling in Woodland, West Sacramento, Winters, and Unincorporated Yolo County and notes "WM's \$29 million investment in advanced recycling technology at the Sacramento Recycling and Transfer Station. With 16 automated optical sorters, the upgraded facility captures and processes a greater percentage of recyclables." The Carton Council encourages





CalRecycle to reach out directly to Sacramento if it has any additional questions about how the facility is sorting cartons for recycling. Our contact there is:

Angel Diaz
Sacramento Recycling & Transfer Station
District Manager II
adiaz4@wm.com

Waste Management
8491 Fruitridge Road
Sacramento CA 95826
Tel. 916 737 4863
Cell 408 335 3179

- **West Valley/Fontana Materials Recovery Facility (Burrtec 36-AA-0341).** This LVTP is located at 13373 Napa Street, Fontana, CA 92335, that was included in CalRecycle's LVTP survey as it does appear in Survey_Juris_021925.csv and Survey_Outflows_Clean_021925.csv, and samples were taken from this LVTP on January 31, 2024. At the times that CalRecycle performed its (1) LVTP survey and (2) gathered outflow composition data, West Valley/Fontana recycled cartons in mixed paper. Composition data for cartons in outflow streams were collected at West Valley January 31, 2024. CalRecycle subsequently calculated these scaled values for cartons from the data collected at West Valley in early 2024:

Scaled value	MT&F	Outflow
6.929730	X02	ONP and Mixed Paper
6.929730	X03	ONP and Mixed Paper
None found	X02	Residuals
None found	X03	Residuals

In all LVTPs some portion of cartons are directed by screens onto a mixed paper quality control sort line after which the mixed paper is deposited into a mixed paper bunker. West Valley/Fontana uses an optical sorter on its mixed paper line to perform quality control and the optical sorter can be instructed to either allow cartons to flow into mixed paper or redirect them to the container line for sorting





into Grade 52. In April 2025 West Valley/Fontana changed the sorting instructions for this paper line optical sorter to redirect cartons from mixed paper to the containers sort line. At the same time the optical sorter settings were changed the facility also began manually sorting cartons from the container line and in less than six weeks had accumulated 11 bales of cartons as of May 19, 2025. Documentation that this LVTP is now effectively sorting cartons into a defined stream, as evidenced by sorting cartons from both the mixed paper line and the container lines into cartons bales is attached as Exhibit 4.

CalRecycle's file Survey_Juris_021925.csv indicates that West Valley/Fontana serves four counties, all of which were already counted as served by any other LVTP sorting cartons for recycling in the Final MCS Report.

Acceptance of Cartons in Grade 54

The official U.S. specification-setting body for paper grades allows cartons in Grade 54:

Mixed Paper (MP)

Search...

ITEM CODE: 54
HTS CODE: 4707900000

Paper Stock

Paper

Consists of all paper and paperboard of various qualities not limited to the type of fiber content, sorted and processed at a recycling facility.
Prohibitive Materials may not exceed 2%
Outthrows may not exceed 3%

[Terms & Definitions](#)

Effective as of: July 14th, 2022

Downloaded from https://www.isrispecs.org/orpheus_resource/mixed-paper-mp/ on May 2, 2025. The term "Outthrows" as used throughout this section is defined as "all papers that will make the pack undesirable and unsuitable for consumption





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as the grade specified." The term "Prohibitive Materials" as used throughout this section is defined as any materials which by their presence in a packing of paper stock, in excess of the amount allowed, will make the pack unacceptable and unusable as the grade specified.

The following graphic shows market locations for Grade 54 Mixed Paper, as well as Grade 52.



Note: the Grade 52 market in California is scheduled to open in late July or August 2025.

Cartons are equally accepted and not considered contaminants by end markets in either grade, so cartons do not result in an increase in contamination in either grade.





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Justification for Publishing Additional Information Now

In the Final MCS Report CalRecycle already determined that both aseptic and gable-top cartons were collected for recycling by recycling programs for jurisdictions that collectively encompass over 60 percent of the population of the state. For this reason, additional discussion of increases in collection programs since the time CalRecycle last collected data are not included in this letter and instead we have focused on data for LVTPs and their sorting practices.

As has been demonstrated previously, the additional counties served by three LVTPs whose sorting practices changed with respect to cartons, and by Athens Sun Valley, which did not change but has now supplied its cartons sorting data, are:

- Alameda County, served by Alameda County Industries, was not previously served by LVTPs sorting cartons for recycling.
- Kern and Ventura Counties, served by Athens Sun Valley, which was missing data on commodity grades produced in CalRecycle's data files, and so was not credited by CalRecycle as sorting cartons to Grade 52.
- Five counties – Glenn, Nevada, Sacramento, Shasta, and Yolo – served by Sacramento Recycling & Transfer Station that were not previously served by LVTPs sorting cartons for recycling.
- Burrtec's West Valley LVTP is now performing an active positive sort for cartons into Grade 52. Previously it included them in mixed paper. No new counties are served by this LVTP.

Counting these LVTPs as sorting cartons for recycling results in an increase of 8 counties from the 16 credited in the Final MCS Report, for a total of 24 out of 34 counties served, which is 71 percent.

The Carton Council must state that **the Final MCS Report no longer is factually correct with respect to the current state of cartons sorting by LVTPs. It is imperative that CalRecycle publish this new information now and not delay.** Aseptic cartons are a shelf stable packaging allowing milk, plant-based milk, soups, and other products to stay fresh for a long period of time. Packaging that will be on the shelf 18 months from now is being





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designed now and will be finalized by mid-July. If a decision isn't made before that date, the recyclable logo will be removed by brands rather than creating a package with the recycling logo on the package and later having to take it off in order to avoid litigation (four lawsuits have been filed since the Final MCS Report release on April 4). Unnecessarily changing package printing designs will cause additional costs to California consumers as cartons manufacturers incur and pass through costs to update design layouts, create and print materials, etc. Similarly, the How2Recycle label will update which packages qualify for which of its labels in July 2025, which they have said will result in a national downgrade for cartons if CalRecycle does not publish this additional information by then.

If CalRecycle fails to act now on this request of the Carton Council, there will also be adverse impacts to California's recycling system. Today cartons sold in California are labeled as recyclable. As recyclable messaging is removed from cartons, consumers will be confused regarding cartons' recyclability and, as a result, fewer cartons will be recycled in California than is the case today, creating more household waste. Removing the recyclable designation will also create significant additional waste by removing the requirement to collect cartons through school milk programs as cartons will no longer be classified as a recyclable material. Plastics usage will also increase in California as entities that have policies to only buy products in packaging listed by CalRecycle as recyclable will shift their purchasing away from products in cartons to products in plastic, which is counter to California's legislative intent.

Without the change in status by CalRecycle of cartons to "recyclable" on the next SB 54 CMC List, communities will no longer be required to collect cartons for recycling under SB 54. If the number of municipalities collecting cartons is reduced, LVTPs will lose the critical mass of cartons needed to justify producing Grade 52 and instead may revert to sorting cartons into mixed paper. Cartons are already a low-volume material compared to the other materials LVTPs sort for recycling and any loss is not acceptable. Furthermore, if LVTPs produce less Grade 52 in California, this would jeopardize the viability of the new UPFACTORY California market for cartons that is scheduled to open in late July/August 2025. This end market is dependent on Grade 52 increasing in California, not decreasing.

The Carton Council and other partners have done their part to grow cartons recycling in California, including investing in the state's LVTPs and investing in the new cartons market for the state. The Carton Council continues to engage with LVTPs to provide assistance to them, including offering robot or optical sorter equipment grants to aid them in actively



sorting cartons for recycling. We expect the percentage of counties served by cartons recycling to continue to grow as long as CalRecycle does its part by publishing, without delay, the additional SB 343 data for cartons provided in this submittal.

Thank you for considering this request.
Sincerely,

A handwritten signature in black ink, appearing to read "J. Fengel", written in a cursive style.

Jordan Fengel,
Executive Director, Carton Council





SB 343/PRC Section 42355.51(a)(3)(B) Additional Information

Exhibit 1 - Alameda County Industries Direct Transfer Information

From: Chris Valbusa <cvalbusa@alamedacountyindustries.com>
Sent: Thursday, May 15, 2025 7:31 AM
To: Susan Robinson <susanonthelake@outlook.com>
Cc: Bernie Camara <bcamara@alamedacountyindustries.com>; Alex Button <abutton@alamedacountyindustries.com>
Subject: Re: Confirmation of cartons sorting

Hi Susan, yes, we continue to recover and market cartons at the rate of approximately 14k pounds per month.

Regards,
Chris

Chris Valbusa
Chief Operating Officer
Alameda County Industries
South Bayside Industries
610 Aladdin Ave.
San Leandro, CA 94577
Office 510-346-8147
www.alamedacountyindustries.com
www.southbaysideindustries.com

From: Susan Robinson <susanonthelake@outlook.com>
Sent: Wednesday, May 14, 2025 9:34 PM
To: Chris Valbusa <cvalbusa@alamedacountyindustries.com>
Subject: Confirmation of cartons sorting

Hi Chris,
We are providing CalRecycle with confirmation of cartons sorting at MRFs.
Could you please confirm that you are sorting cartons into a grade 52 bale for marketing? Responding to this email – and even confirmation of material sold or a photo if finished bales – would be great,
Thank you,
Susan
206.915.9183



SB 343/PRC Section 42355.51(a)(3)(B) Additional Information

Exhibit 2 – Athens Sun Valley Material Recycling & Transfer Station

From: Keng Baloco-Wong <kbaloco@athensservices.com>
Sent: Thursday, May 15, 2025 3:46 PM
To: Susan Robinson <susanonthelake@outlook.com>; Mario Gutierrez <mgutierrez@athensservices.com>
Cc: Reece Hammer <rhammer@athensservices.com>
Subject: RE: Confirmation of Carton Sorting

Irwindale will be sorting out the cartons

From: Keng Baloco-Wong <kbaloco@athensservices.com>
Sent: Thursday, May 15, 2025 11:04 AM
To: Susan Robinson <susanonthelake@outlook.com>; Mario Gutierrez <mgutierrez@athensservices.com>
Cc: Reece Hammer <rhammer@athensservices.com>
Subject: RE: Confirmation of Carton Sorting

Hi Susan,
Sun valley is definitely recovering cartons and has been for a while. Do you know what source data is not showing that SVM is recovering so we can look into and rectify?

From: Susan Robinson <susanonthelake@outlook.com>
Sent: Wednesday, May 14, 2025 9:10 AM
To: Mario Gutierrez <mgutierrez@athensservices.com>; Keng Baloco-Wong <kbaloco@athensservices.com>
Subject: Confirmation of Carton Sorting

[EXTERNAL EMAIL] [DO NOT CLICK] on any links or attachments unless you recognize the sender and know the content is safe.

Hi again Mario and Keng,
For some reason, CalRecycle is not crediting Athens' Sun Valley MRF with sorting cartons for recycling, which of course we all know is not correct. They do have Puente Hills on their list.

Can you please confirm that the following statements are accurate so that we can relay this information to CalRecycle and you get credit for the sorting you are performing?

- Athens owns and operates the Sun Valley MRF, SWIS #19-AR-5581 and RDRS #10750, which is located at 11121 Pendleton Street, Sun Valley, CA 91353
- This MRF has recycled cartons since 2023 when the Carton Council provided a robot to Athens to sort them. These cartons are baled as Grade 52 Cartons and sold for recycling.

We hope to get this wrapped up this week. Feel free to give me a call with any questions.

Thank you,
Susan
CCNA, West Coast Field Representative
206.915.9183





COUNTY OF YOLO
Office of the County Administrator

625 Court Street, Room 202 • Woodland, CA 95695
www.YoloCounty.org

FOR IMMEDIATE RELEASE
November 15, 2024

Contact: Dwight Coddington
Email: PIO@YoloCounty.gov
Phone: (530) 908-0186

Yolo County Kicks-Off New Food and Beverage Carton Recycling Services on America Recycles Day

(Woodland, CA) – Just in time for America Recycles Day, also known as National Recycling Day, on November 15, the Yolo County Landfill is excited to announce that food and beverage cartons are now accepted in the recycling stream. Residents serviced by WM in Woodland, West Sacramento, Winters, and Unincorporated Yolo County, will be able to place cartons in their blue-lidded recycling bin beginning November 15. Residential customers of Yolo County serviced by Recology in Davis, El Macero, North Davis Meadows and other rural pockets of Davis and Winters, will have access to drop-off cartons for recycling seven days a week, 24-hours a day, at 2727 Second Street in Davis, effective December 1.

"We are excited to announce a new milestone in our efforts to reduce waste and promote sustainability in Yolo County, states Marissa Juhler, Yolo County Director of Integrated Waste Division. This initiative reflects our commitment to expanding recycling opportunities, protecting our environment, and supporting our economy. We encourage everyone to take advantage of this new program and help us keep Yolo County clean and green for future generations."

This initiative comes in response to the growing demand for recycling services. Gable-top and aseptic cartons are made from a mix of paper, polyethylene, and aluminum (aseptic cartons). These layers provide protection against light, air, and harmful bacteria, but do not prevent them from being recycled. The estimated quantity of gable top and aseptic cartons generated in California is roughly 70,000 tons each year, of which only 20% is recycled in the state, demonstrating an opportunity for additional recycling growth of this material.

Recycled cartons (milk cartons, soup cartons, juice boxes, etc.) provide the raw materials for building products, as well as paper products such as tissue paper and paper towels. Cities throughout the state, such as Napa, San Diego, San Francisco, and Oakland are already participating in carton recycling. Cartons do not belong in trash carts since they are recyclable and are not to be placed in the organics bins since we do not want the plastic and aluminum layers contaminating the finished compost product. Therefore, source separation is necessary to ensure that all three waste streams are utilized correctly. "The Carton Council is committed to increasing carton recycling so these valuable materials can go on to have a second life," said Jason Pelz, Vice President of Recycling for the Carton Council. "We're thrilled to see Yolo County join the growing number of communities adding cartons to their programs."

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The Last Beach Cleanup and Basel Action Network Contaminated Paper Waste Fact Briefing (December 2, 2025)



From: Sean Heasley <sheasley@burrtec.com>
Sent: Monday, May 19, 2025, 12:53 PM
To: Robert Rios <robert@burrtec.com>; Alex Zavala <azavala@burrtec.com>
Subject: Re: CalRecycle MRF Data - Cartons

Currently we have 11 bales .

I am not sure about the grade of the material.

The process is correct we remove it from the stream via optical sorter and a human positive sort.

Thank you,

Sean Heasley
Division Manager
West Valley MRF/TS
Burrtec Waste Industries
909.899.0911 Ext 3605

From: Robert Rios <robert@burrtec.com>
Sent: Monday, May 19, 2025 12:08 PM
To: Sean Heasley <sheasley@burrtec.com>; Alex Zavala <azavala@burrtec.com>
Subject: Fwd: CalRecycle MRF Data - Cartons

Can you help confirm

Sent via the Samsung Galaxy S20 FE 5G, an AT&T 5G smartphone
Get [Outlook for Android](#)

From: Susan Robinson
Sent: Wednesday, May 14, 2025 9:32 PM
To: Robert Rios <robert@burrtec.com>
Subject: CalRecycle MRF Data - Cartons

Hello Robert,
We are providing information to CalRecycle to update their database regarding cartons.
Could you confirm whether the information below is correct?
In 2024 Burrtec's marketed cartons in mixed paper from this MRF. Beginning in 2025 the West Valley/Fontana MRF changed the settings on the optical sorter it uses on its mixed

paper line and the optical sorter now redirects cartons to the container line, where they are now sorting cartons from the container line to produce cartons Grade 52 bales.

Following is a summary of how cartons are now sorted going forward:

- West Valley/Fontana uses a combination of optical sorters and manual sorters to sort all cartons it receives into Grade 52.
- The defined stream to which cartons are now actively being sorted for recycling is Cartons Grade 52.
- The West Valley/Fontana MRF has nearly accumulated a truckload of cartons since Burrtec's began sorting cartons to Grade 52 in April of 2025. Burrtec's intends to continue to sort cartons to Grade 52 due to the new California cartons market.

If you could just respond that this is accurate – hopefully, by the end of the week, we would be grateful.

Thank you,
Susan

The Last Beach Cleanup and Basel Action Network Contaminated Paper Waste Fact Briefing
(December 2, 2025)

2. June 20, 2025: Email from CalRecycle (Zoe Heller) to Carton Council (Jordan Fengel)

From: Heller, Zoe@CalRecycle <Zoe.Heller@calrecycle.ca.gov>
Sent: Friday, June 20, 2025 4:40 PM
To: Jordan Fengel <Jordan.Fengel@cartoncouncil.org>; Faith Conley <faith@weidemangroup.com>
Cc: McIntyre, Mindy@CalRecycle <Mindy.McIntyre@CalRecycle.ca.gov>; Vazeix, Clara@CalRecycle <Clara.Vazeix@CalRecycle.ca.gov>; Martin, Michelle@CalRecycle <Michelle.Martin@CalRecycle.ca.gov>; Curiel, Allegra@CalRecycle <Allegra.Curiel@CalRecycle.ca.gov>; Catherine.Baxter@gov.ca.gov; Brady.borcherding <Brady.borcherding@gov.ca.gov>; Mark Weideman <mark@weidemangroup.com>; Melendez, Ana <ana.melendez@calepa.ca.gov>; Hayes-Bautista, Catalina@EPA <catalina.hayes-bautista@calepa.ca.gov>
Subject: RE: SB 343/PRC Section 42355.51(a)(3)(B) Additional Information

Hi Jordan and Faith

Thank you for the follow up and ongoing engagement on SB 343. We have carefully reviewed CCNA's May 23rd submission and we were able to conduct outreach to large volume transfer/processor (LVTPs) facilities to verify changes in their sorting behaviors since CalRecycle's last data collection.

Two facilities, collectively serving two additional counties (Alameda and LA) now sort cartons into Grade 52 bales. However, the Sacramento Recycling & Transfer Station identified by CCNA sorts cartons into Grade 54 bales, which do not constitute a "defined stream." Therefore, the percentage of recycling programs served by facilities sorting cartons into a "defined stream" remains below the 60% threshold.

While the updated percentage remains below 60%, a new facility expected to be a market for Grade 52 bales is projected to open in Lodi, CA later this year. Given its proximity to Sacramento Recycling and Transfer Station, we recommend that CCNA collaborate with this facility to evaluate the option of sorting cartons into grade 52 bales that the new Lodi facility will accept. We would be happy to work with CCNA and the facilities in question to facilitate these discussions. Similarly, we are happy to work with CCNA to identify other potential opportunities to meet the SB 343 requirements.

It is also important to note that labeling restrictions only apply to products **manufactured** after October 4, 2026, and does not apply to products manufactured prior regardless of the date of sale.

We acknowledge the significant progress that CCNA has made to comply with the SB 343 requirements, and we remain committed to supporting CCNA in achieving SB 343 goals.

Happy to set up a meeting to discuss the results of CalRecycle's evaluation and next steps.

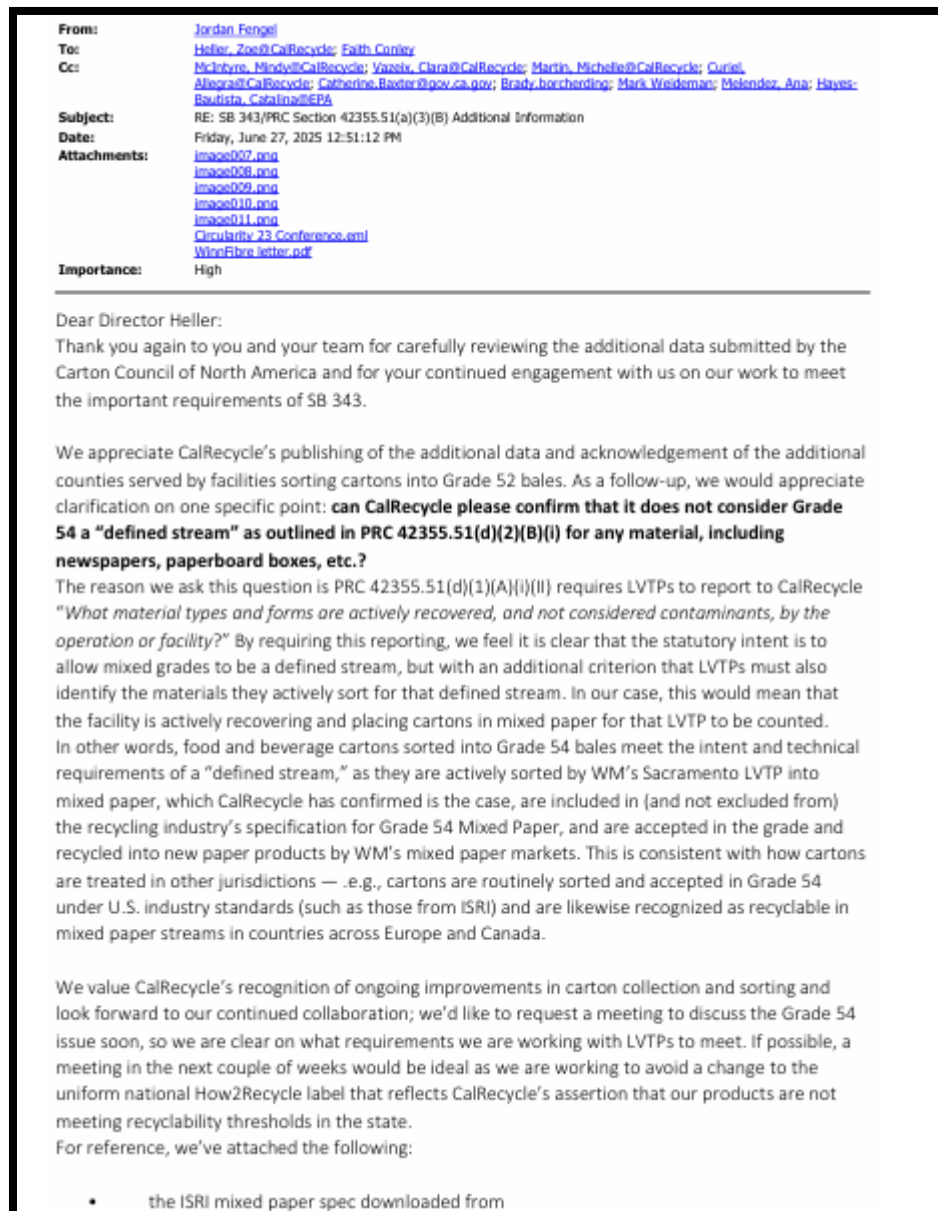
Thank you,
Zoe

Zoe Heller
Director
CalRecycle (Department of Resources Recycling and Recovery)
Phone: (916) 341-6075



The Last Beach Cleanup and Basel Action Network Contaminated Paper Waste Fact Briefing
(December 2, 2025)

3. June 27, 2025 Email from Carton Council (Jordan Fengel) to CalRecycle (Zoe Heller)



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https://www.isrispecs.org/orpheus_resource/mixed-paper-mp/ just a couple of days ago that states the grade consists of, "all paper and paperboard of various qualities not limited to the type of fiber content, sorted and processed at a recycling facility."

- the NORPAC email is in reference to Oregon's EPR program allowing cartons into the defined mixed paper stream and the NORPAC mixed paper mill attesting that they accept and pulp both gable top and aseptic cartons, meeting OR's package yield requirements.
- A letter from WinnFibre submitted to CalRecycle in 2023 illustrating the known acceptance and attestation of fiber recovery from aseptic and gable top cartons sourced from Grade 54 bales to recycle into new paper and packaging products; WinnFibre is the largest exporter of mixed paper sourced from the West Coast.

Thank you,
Jordan

Jordan Fengel

Executive Director

Carton Council

Phone: +1 940-220-0585

www.recyclecartons.com



Need to schedule a meeting? Book some time on my [calendar](#)

4. July 2, 2025 Email from CalRecycle (Dan Brown) to the Carton Council (Jordan Fengel)

From: Brown, Dan@CalRecycle <Dan.Brown@calrecycle.ca.gov>

Sent: Wednesday, July 2, 2025 1:23 PM

To: Jordan Fengel <Jordan.Fengel@cartoncouncil.org>

Subject: Quick follow-up

Hi Jordan,

Based on our discussion today, I had one quick follow-up. Do you have information on the end market(s) that Sacramento Recycling & Transfer Station is sending it's PSI-54 bales to, validating that those end market(s) accept and have the appropriate equipment/processes to recycle cartons? I am not seeing that in the info you've provided previously, and based on our discussion today I think that would be really helpful as we discuss our path forward internally.

Thank you!

Dan Brown (he/him)

Environmental Program Manager II

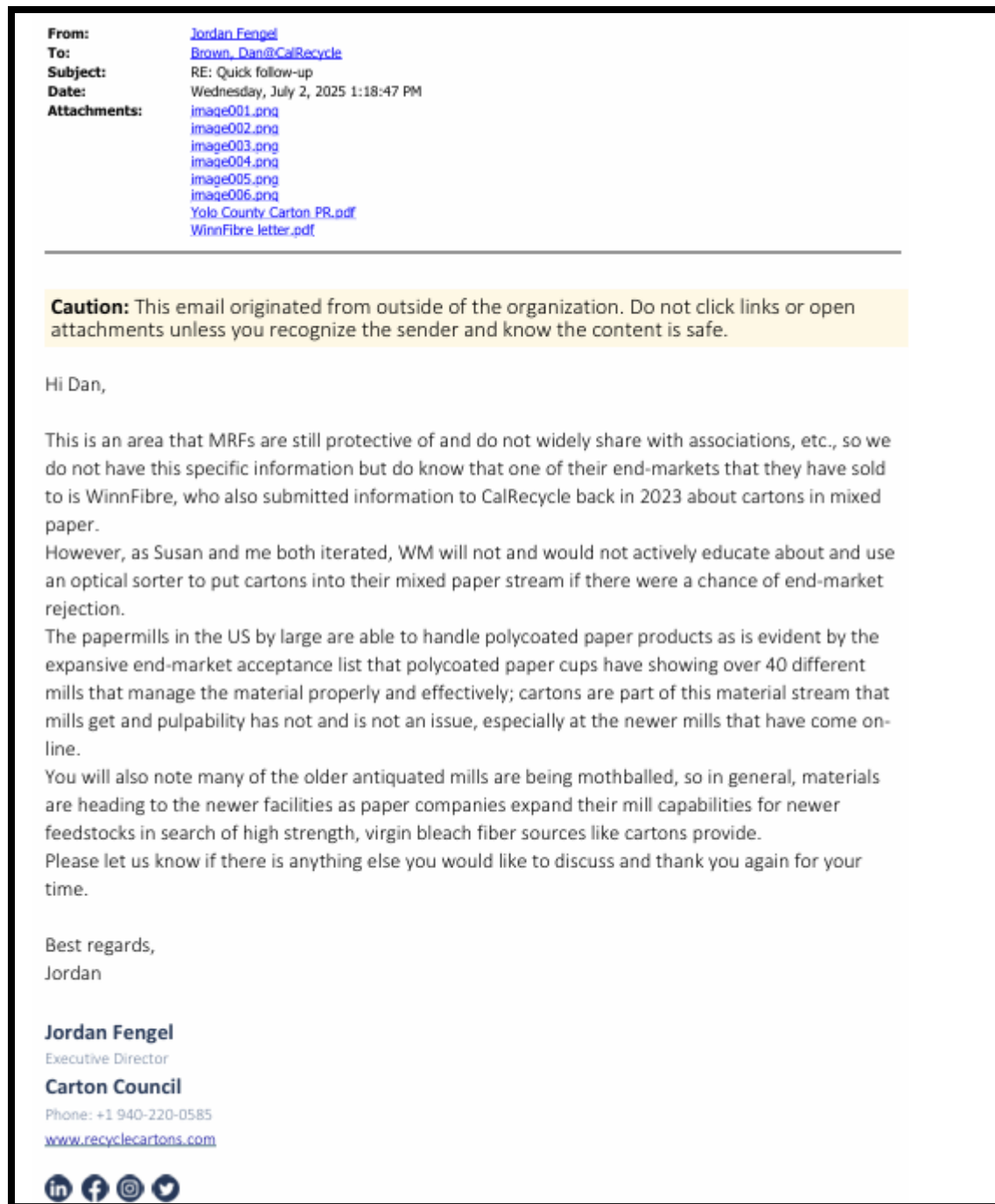
Policy Development and Analysis Office

(916) 322-0957

Dan.Brown@CalRecycle.ca.gov

California Department
of Resources Recycling
and Recovery

5. July 2, 2025 Email from Carton Council (Jordan Fengel) to CalRecycle (Dan Brown)



6. July 2, 2025: Attachment to Carton Council Email



December 19, 2023

WinFibre U.S. Inc. serves as the exclusive buying agent for secondary fiber for Lee and Man Paper Limited ("the Company").

Established in 1994, Lee and Man Paper has evolved into a world leader in producing containerboard-based paper and pulp. The group was listed on the Hong Kong Stock Exchange's main board on September 26, 2003, under the stock code 02314. Specializing in kraft board and corrugated core paper, the Company caters to a diverse range of industries with various grades and specifications. Presently, the Company operates five paper mills, three tissue paper mills, and one pulp mill in China. Additionally, it has established production bases in countries like Vietnam and Malaysia. Committed to excellence, the group consistently invests in cutting-edge machinery and research and development to ensure high-quality, affordable products. As a result of these efforts, Lee and Man Paper has flourished into a multinational enterprise, boasting an impressive annual production capacity exceeding 7.385 million tons. Backed by the Company's substantial support, WinFibre has become one of the largest purchasers of secondary fiber, including OCC, Mixed Paper, SOP, and SRPN from the U.S.

The mixed paper grade (#54) sourced from the North American market typically includes aseptic and gable top cartons, commonly found in residential recycling streams and recovered at large-scale Material Recovery Facilities (MRFs). Adhering to PSI standards, the fiber from these aseptic and gable top cartons is extracted during the mixed paper pulping process and subsequently recycled into new paper and packaging products.

Lee and Man's mills continuously invest in state-of-the-art processing equipment, enabling the Company to efficiently utilize this material in the production of paper and packaging products.

For any inquiries, please feel free to reach out to me at byronluo@winfibre.com.

A handwritten signature in black ink, appearing to read "Byron Luo".

Byron Luo
CEO, WinFibre (U.S.) Inc.

The Last Beach Cleanup and Basel Action Network Contaminated Paper Waste Fact Briefing (December 2, 2025)

7. July 9, 2025: Carton Council email to CalRecycle

From: Jordan Fengel <Jordan.Fengel@cartoncouncil.org>
Sent: Wednesday, July 9, 2025 10:50 AM
To: Brown, Dan@CalRecycle <Dan.Brown@calrecycle.ca.gov>
Cc: Heller, Zoe@CalRecycle <Zoe.Heller@calrecycle.ca.gov>; Faith Conley <faith@weidemangroup.com>; Mark Weideman <mark@weidemangroup.com>
Subject: Follow-Up on Carton End Markets and Consistency Across Materials
Importance: High

Caution: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Dan,

Thank you for your continued dialogue on this important issue.

Regarding your request for information on the end market verification, as previously shared, WM Sacramento Recycling & Transfer Station vets its end markets and is actively sending Grade 54 bales to end markets that can utilize and yield fiber from materials within the bale, including food and beverage cartons, and ensure the materials are responsibly managed.

In my previous email, I also shared the Yolo County public release about this specific WM MRF upgrade facilitating carton recycling and the letter from WinnFibre that they submitted to you all in 2023; I hope this helps your internal review process. Additionally, we would like to better understand CalRecycle's approach to ensure clarity and consistency across material types.

Specifically: **Is this same end market validation methodology being applied to other commodities, or is this specific to cartons?**

For example:

- PET thermoforms received the same sortation rate as clear PET bottles. To our knowledge, few PET thermoforms are sorted into a purely thermoform grade. They are typically sorted into PET bottle bales, despite having a different melt viscosity and are removed and disposed of by at least a couple traditional PET reclaimers.
- Likewise, pigmented PET creates a similar question as that format also received a 100% sortation rate. During a recent PET reclaimer visit, we were informed that opaque pigmented PET is considered a contaminant and cannot be recycled in that stream, so it is removed and disposed by them. Yet, it appears to have been deemed compliant with sortation requirements like clear PET.

PL01	PET Clear Bottles - Non-CRV	Plastic	34	100
PL02	PET Clear Beverage Bottles - CRV	Plastic	SAP	SAP
PL03	PET Pigmented Bottles - Non-CRV	Plastic	34	100
PL04	PET Pigmented Beverage Bottles - CRV	Plastic	SAP	SAP
PL05	PET Thermoformed Clamshells and Containers	Plastic	34	100

It appears cartons are being singled out for end market validation requirements that are not being applied to other materials.

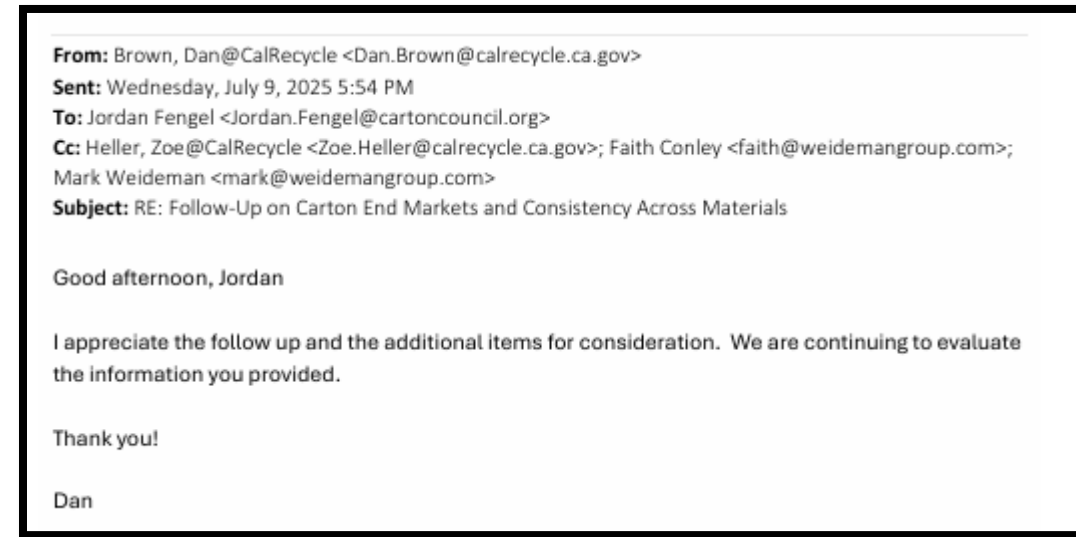
Additionally, NORPAC and WinnFibre have both attested they purchase Grade 54 mixed paper where cartons are known to be included and accepted in their inbound feedstock, these are a couple of examples that prove that cartons within Grade 54 are part of a defined stream. The materials result in a positive yield of fiber, meeting Oregon's EPR yield mandates, and are not an outthrow or reject like PET thermoforms and pigmented bottles are at a PET reclaimer.

Clarifying this would help ensure equitable treatment across commodities under SB 343 requirements, which we all understand is specifically focused on two elements: household access and sortation of materials into a defined stream. Separately, responsible end markets are a part of SB 54 rulemaking. Furthermore, today we had a follow-up call with the How2Recycle team who stated multiple CPGs are asking to remove the widely recyclable logo from cartons because of the uncertainty and legalities caused by SB 343. Member companies of Carton Council also have reported brands are opting to remove the recycling logo now as the design work for 2026 needed to be finalized last week and no decision was granted by CalRecycle at the time of needing to make their decision.

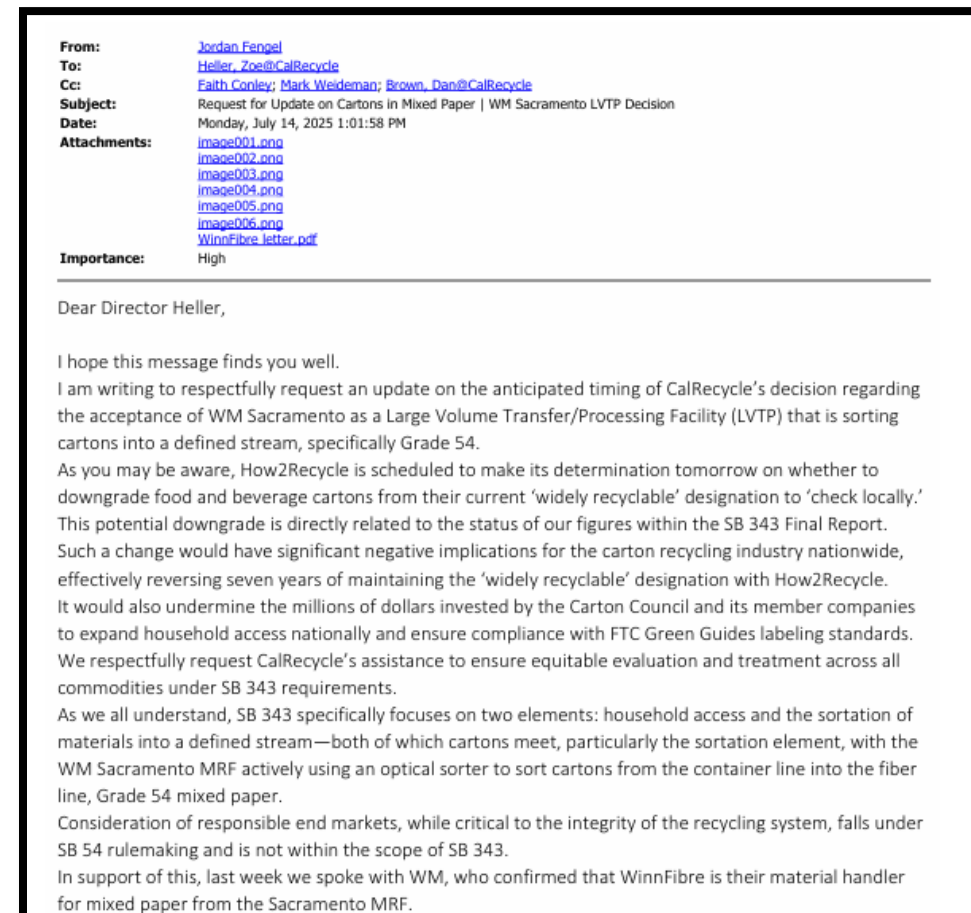
We appreciate and await your timely feedback.

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8. July 9, 2025: CalRecycle Email to Carton Council



9. July 14, 2025: Carton Council Email to CalRecycle



The Last Beach Cleanup and Basel Action Network Contaminated Paper Waste Fact Briefing
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For your convenience, I have reattached the letter WinnFibre submitted to CalRecycle in 2023, attesting to their knowledge and utilization of cartons in the mixed paper they source.

Additionally, CalRecycle should soon receive, if it has not already, a letter from WM outlining their vetting process for end markets, associated legal considerations, and related documentation.

Furthermore, I would like to note that we recently expanded household access to carton recycling in Austin, Texas, adding nearly 500,000 new households.

Food and beverage cartons are also included on Oregon's USCL, with all MRFs in that state sorting cartons into Grade 54, thereby adding over 800,000 households with carton recycling access.

While the Carton Council continues to expand household access to carton recycling nationally and within California, and increase the recycling of cartons, the current trajectory will set back nearly a decade of our efforts and investments.

We greatly appreciate your continued attention to this matter and look forward to any updates you are able to provide at your earliest convenience.

Thank you, Director Heller.

Best regards,
Jordan

Jordan Fengel

Executive Director

Carton Council

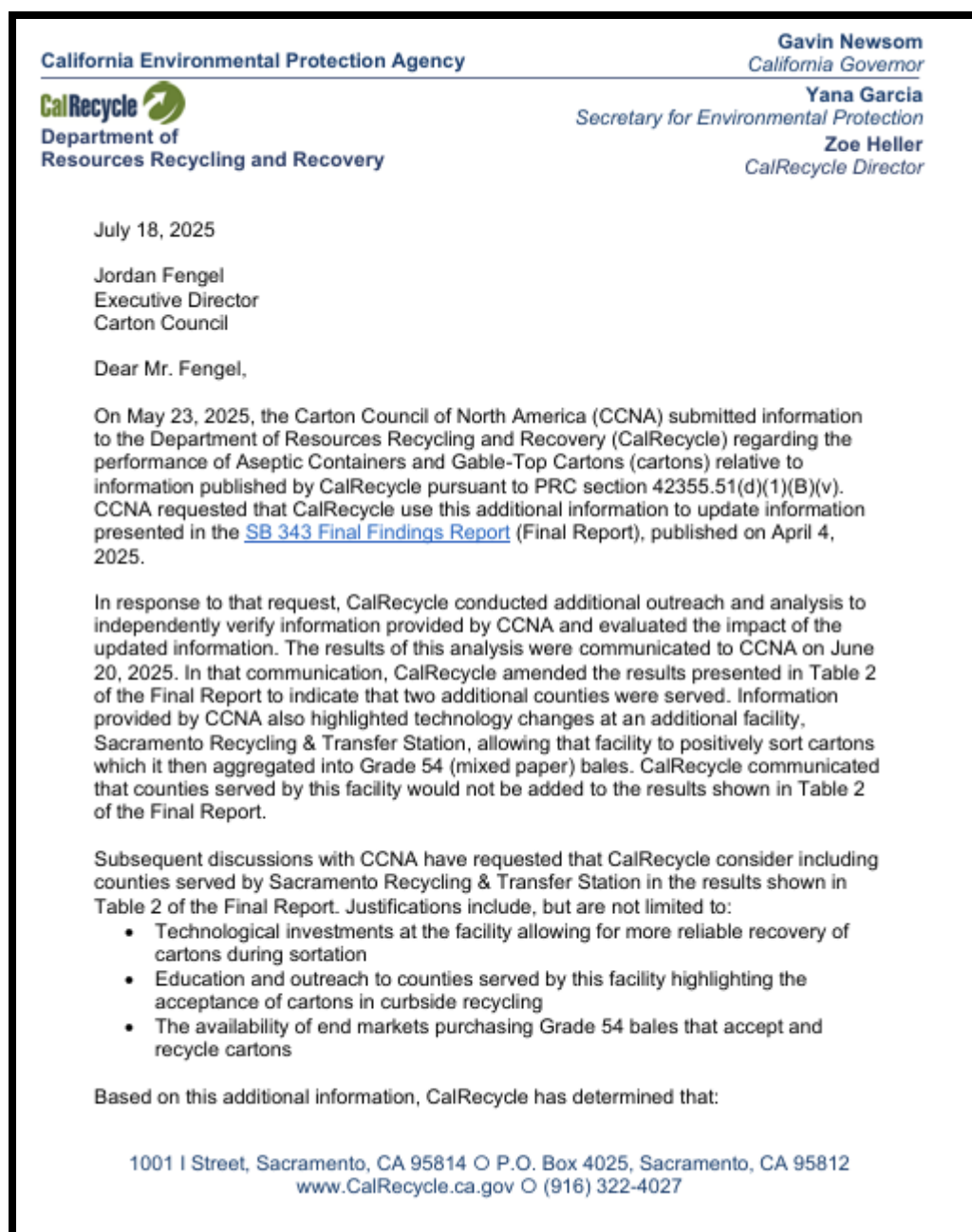
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Need to schedule a meeting? Book some time on my [calendar](#).

10: July 18, 2025 CalRecycle Letter to the Carton Council



The Last Beach Cleanup and Basel Action Network Contaminated Paper Waste Fact Briefing
(December 2, 2025)

- Solely for the purposes of information published by the department pursuant to PRC section 42355.51(d)(1)(B)(iii), CalRecycle will amend the results shown in Table 2 of the final report to include the five counties served by Sacramento Recycling & Transfer Station
- CalRecycle does not, at this time, include any other counties served by LVTPs sorting cartons into Grade 54 bales in the amendments to Table 2 of the Final Report.
- CalRecycle is not making any determination of recyclability with this finding, nor is CalRecycle making a determination of the recycling rate for cartons.

Therefore, in addition to those identified in the Final Report, seven more counties are now considered to be served. Accordingly, CalRecycle has updated the SB 343 findings for Material Type and Form (MT&F) codes X02 and X03, presented in Table 2 of the Final Report, as shown below:

MT&F Code	MT&F Name	MT&F Class	Previous Counties Served	Updated Counties Served	Previous Percent of Counties Served	Updated Percent of Counties Served
X02	Gable-Top Cartons – Non-CRV	Fiber	16	23	47%	68%
X03	Aseptic Containers – Non-CRV	Fiber	16	23	47%	68%

CalRecycle will publish this information pursuant to PRC section 42355.51(d)(1)(B)(iii), which authorizes CalRecycle to publish additional information that was unavailable at the time of the most recent periodic material characterization study conducted pursuant to section 42355.51(d)(1)(B)(ii).

Sincerely,



Zoe Heller
Director

1001 I Street, Sacramento, CA 95814 O P.O. Box 4025, Sacramento, CA 95812
www.CalRecycle.ca.gov O (916) 322-4027