August 19, 2026

Closed Loop Partners Center for the Circular Economy (the Closed Loop Center)

To the Washington Department of Ecology,

In response to the Washington Department of Ecology's request for comments on the preliminary statewide collection list for the implementation of the Recycling Reform Act, the Closed Loop Center is pleased to see "Polycoated Fiber Food Packaging" and "#5 PP Other Packaging & Food Serviceware" included on the residential collection list. We understand that paper and polypropylene (PP) cups fall under these categories. We support this designation and encourage its continuation throughout the regulatory and implementation process. In May, we submitted responses to the request for information regarding these packaging types and we have included them as an appendix for ease of reference. We are eager to collaborate and share additional data if it would be helpful as we continue to see forward momentum and progress of both material types nationally and within Washington.

As Managing Partner of the NextGen Consortium, a collaboration of foodservice brands that address single-use foodservice packaging waste, we are focused on continuing to advance the recoverability of key packaging types, such as paper and PP cups. Both formats have demonstrated growing access, recoverability, and viable domestic end markets, and we support their inclusion in the statewide list.

Paper cup recycling has made tremendous strides in recent years. Since the start of 2025, more than 10 million new households nationwide can now recycle paper cups. In Washington, nearly 40% of residents currently have access to paper cup recycling[1]. Several factors have driven this recent momentum, many of which are documented in our RFI (attached). Some key highlights include:

- **Strong End Market Acceptance**: More than 35 North American mills now accept paper cups.[2]
- **Broader MRF Acceptance**: Stronger end markets mean more MRFs can sort and process paper cups into marketable bales, including WM with their recent announcement of accepting paper cups across its entire portfolio.

[1] (2026) Recycling Partnership Access Database, Recycling Partnership
[2] (2026) End Markets for Post-Consumer Paper Cups, RRS

- **Demonstrated High Fiber Yield:** Paper cups are comprised of high-quality fiber and NextGen supported studies have demonstrated high fiber recovery yield in the recycling and repulping process.[3]
- **Food Contamination is Not a Major Concern**: According to a study by the Sustainable Packaging Coalition with industry partners, food residue on paper packaging (including cups), at current levels, is a minor issue to recyclers.[4]

PP cups have also made tremendous recycling gains, including recently achieving a "Widely Recyclable" status from How2Recycle. In recent years, access to recycling programs for this format has increased significantly, with a rise of over 10% since 2022. In Washington State, approximately half of residents now have access to recycling programs that accept PP cups[5], reflecting continued improvement from previous years. Research detailed in the attached RFI submission shows that MRFs can effectively capture and sort PP cups, that they have low contamination rates, and that end markets accept them.[6]

Work from the NextGen Consortium and other industry partners shows that both paper and PP cups are compatible with existing state recycling infrastructure and have established or growing end markets. We have attached our RFI responses as an appendix to provide more detail on the current landscape and welcome further collaboration with the State, as needed.

Sincerely,

Kate Daly

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[3] (2020) PE-lined Fiber Cup Repulpability Study, Western Michigan University
[4] (2026) How Clean is Clean Enough?, Sustainable Packaging Coalition
[5] (2026) Recycling Partnership Access Database, Recycling Partnership
[6] (2022) Reclamation of PP Cups and other PP Packaging Items, RRS

APPENDIX

Below is the Closed Loop Partners Center for the Circular Economy's submission to the WA Department of Ecology Request for Information (RFI) on what items should be included on the statewide collection list. The Closed Loop Center highlighted the importance of including paper and polypropylene cups in the state's recycling program.

May 8, 2026

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PAPER CUP INCLUSION IN WASHINGTON'S STATEWIDE COLLECTION LIST

Response to Washington Department of Ecology's Request for Information

INTRODUCTION

This submission responds to the Washington Department of Ecology's Request for Information (RFI) regarding the requirements outlined in Sections 090 and 110 of the Recycling Reform Act. In this submission, we propose the inclusion of paper cups in Washington's future statewide collection list because of their growing recoverability, recyclability, and market demand. In the following sections, we present studies, research findings, and insights gathered from years of industry discussions to demonstrate the significant value of recycling paper cups.

SECTION A. REQUEST FOR INFORMATION FOR WASHINGTON'S STATEWIDE COLLECTION LISTS

A1: Compatibility with Collection, Sorting, and Processing Infrastructure

- **An increasing number of communities and residents have access to paper cup recycling programs.**
    - According to The Recycling Partnership's Community Recycling Program Acceptance Data database, ~22% of communities in the U.S. accept paper cups in recycling programs as of May 2026. This access rate is up from just over 10% in late 2023, demonstrating tremendous progress.[i]
    - Many major US cities and counties have added paper cups to their lists of acceptable recycling items. This includes Seattle, New York City, Denver, Atlanta, Austin, Chicago, Detroit, Louisville, Washington D.C., Boston, and San Francisco, among several others. In addition, the state of Massachusetts has recently decided to add paper cups to its statewide list.
    - Paper cups are increasingly accepted in areas with Extended Producer Responsibility (EPR) schemes, such as Ontario and British Columbia, Canada.
    - In Washington, nearly 40% of residents have access to paper cup recycling programs, well above the national average.

- **Paper cups can be effectively sorted by Material Recovery Facilities (MRFs)**.
    - The NextGen Consortium, in collaboration with the Foodservice Packaging Institute (FPI), commissioned consulting firm Resource Recycling Systems (RRS) to conduct a series of sortation studies for polycoated paper cups at MRFs in several large cities around the U.S. The sortation studies created a better understanding of how cups flow through an MRF environment. Based on this work, we found that paper cups can be diverted to mixed paper or polycoated paper bales through technology (e.g., optical sorters, robotic sorters, etc.) or manual sorting interventions.[ii] Examples of interventions to capture cups include:
        - In Dallas, Texas, the NextGen Consortium, the Foodservice Packaging Institute, and the Carton Council collaborated on a grant to install robotic equipment at the local MRF (FCC Environmental Services) to create a cup and carton bale with an end market customer purchasing the bales. As a result, Dallas now promotes the recycling of paper cups to its residents.[iii]
        - In 2025, at TFC Recycling in Virginia, the NextGen Consortium collaborated with the Foodservice Packaging Institute to support

a MRF equipment grant that would help effectively sort and capture cups at TFC Recycling into bales designated for recycling.[iv]

- In Austin, Texas, the NextGen Consortium, FPI, and the Carton Council collaborated on a grant for an MRF to install equipment that would enable the capture of polycoated paper items, including cups. The City of Austin now promotes the recycling of these items to its residents.[v]

  - In November 2025, WM announced that it added paper to-go cups to its universal list of accepted recycled materials. To sort cups, WM indicates that many facilities utilize optical sorters before the container line to redirect paper cups to the paper stream.[vi]
  - In 2025, the Recycled Materials Association (ReMA) added paper cups to the "allowable paper commodities in the Inbound Residential Single Stream and the Inbound Residential Dual Stream specifications".[vii]
  -

- **End market/mill acceptance of paper cups continues to grow as more of these facilities can process and recycle paper cups.**
  - According to FPI, as of April 2026, there are more than 35 paper mills that accept cups in bales of mixed paper, or aseptic and gable top cartons in North America.[viii] This is up from fewer than 20 mills just a few years ago.
  - The fiber in paper cups is high-quality[ix] and strong. Paper cups are typically made of valuable long cellulose fibers as part of a solid bleached sulphate (SBS) paperboard grade. Insight from our work with paper mills indicates that the fiber in cups can help offset declining feedstock volumes of other paper types, such as newsprint and magazines.[x]
  - Mills can separate the polyethylene liner in the pulping process so that the valuable fiber can be captured at high rates and reprocessed. Several large mill companies, such as Sonoco, Graphic Packaging, and Georgia Pacific, have conducted cup trials in recent years to demonstrate their ability to effectively recycle the paper cups and have promoted these findings publicly.
  - Paper mills that accept paper cups in mixed paper represent more than 75% of domestic mixed paper demand.[xi]
  - A NextGen Consortium study with Western Michigan University's paper pilot plant found that a standard polycoated paper cup (i.e., hot coffee cup) passed the recycling and repulpability test, demonstrating a fiber yield of 89%, well above the "pass" threshold.[xii] A full copy of this report is available upon request.

A2: Ease of Material Identification and Preparation for Recycling

- **Contamination is generally not an issue for paper cup recyclability**. Liquids typically drain from cups along the journey from consumer to MRF, and while

some consumers might put waste into a cup (e.g., plastic wrappers), this does not cause an issue for reprocessing at the mills.
    - In a study by FPI, it was found that paper and paperboard programs had extremely low rates of significant residue.[xiii]
    - In 2026, the Sustainable Packaging Coalition (SPC) released a blog outlining the results from a multi-faceted research project in collaboration with its members, industry partners, and Clemson University. This project sought to better understand the impact food residue has on the recyclability and consumer treatment of paper packaging. Some key highlights include:
        1. Education and on-pack messaging are key to reducing the amount of food residue that enters the recycling system
        2. Most consumers already know to clean food residue off of packaging before recycling
        3. Most recycling facilities view food residue as a minor issue, but none are open to receiving more of it

- **Residents believe paper cups are recyclable.** According to NextGen Consortium research, more than 70% of consumers surveyed believe that their paper cup and its components can be recycled, although most still put them in their trash.[xiv]

A4: Packaging Design Characteristics and Material Flow Information

- **Paper cups have a high fiber yield.** The typical paper cup (poly-coated on one side) is roughly composed of 90-95% paper, while the rest is made up of a thin, typically polyethylene (PE) coating. In repulpability studies, such as with Western Michigan University's paper pilot plant, we found that a standard polycoated paper cup passed the recycling and repulpability test, demonstrating a fiber yield of 89%, well above the "pass" threshold.
- **Paper cups are a relatively small percentage of waste and recycling streams in the United States.** In 2022, the NextGen Consortium supported a Residential Mixed Paper Bale Composition Study, executed by RRS, of three domestic MRFs that process materials from communities that accept paper cups. These composition studies found that paper cups represented less than 0.25% of the total bale by weight on average.[xv]
- **Brands want post-consumer fiber:** As of 2024, Starbucks' paper cups are manufactured with 10% to 30% post-consumer recycled fiber (PCF).[xvi]
- **New cup coating innovations show strong potential but face a steep learning curve on the path to scalability.** The NextGen Consortium is working to identify innovative materials that can improve cup recyclability and compostability. NextGen continues to source and test alternative cup coatings to the polyethylene (PE) liner to help improve the material recyclability, recoverability, and potential composability of cups. NextGen has

tested over 20 emerging technologies and learned that replacing the PE liner requires rigorous testing and must consider commercial scalability while meeting brand performance and FDA (Food and Drug Administration) food contact standards. The benefits of new cup coatings include increased fiber yield, as demonstrated through NextGen-led testing, along with compostability for some coating types. Those innovations are critical as they may improve end-of-life opportunities for paper cups based on available regional recycling or composting infrastructure. Many of the new coatings being evaluated are also bio-based (made from renewable materials), which will further help reduce the environmental impact of single-use cups. While some of these technologies show encouraging potential, most solutions remain early-stage and will require continued iteration before achieving market readiness.

A5: End Market Viability and Responsible Market Conditions

- **A growing number of mills that process mixed paper accept cups.** According to FPI, as of April 2026, there are more than 35 paper mills that accept cups in bales of mixed paper or aseptic and gable top cartons in North America.[xvii]
- **There are stable end markets for paper cups.** Some notable end markets include tissues, paperboard packaging, market pulp, and more.[xviii]
- **Demand for fiber is high.** As mills compete for shrinking supplies of newspaper and office paper in the recycling stream, there has been growing interest in recovering material that contains high-quality fiber, such as paper cups.[xix] Since paper cups have an >80% fiber yield when processed, they provide mills with a potential new input.[xx]
- **There is an end market for paper cups in Washington.** A large paper mill in Longview, WA, has stated that they accept paper cups—providing a nearby end market solution.[xxi]

SECTION B. REQUEST FOR INFORMATION ON WASHINGTON'S NEEDS ASSESSMENT

B2: Recycling Drop-Off Services and Reuse and Refill Infrastructure

The NextGen Consortium has been testing reusable cup systems since its inception in 2018. Below are some of our key insights to help shape WA's strategies for implementation and investment.

- **Testing reuse systems is vital.** For three months in 2024, 30 restaurants in the City of Petaluma, CA swapped their single-use cups for to-go reusable cups that could be returned anywhere in town via a network of over 60 local return bins. With no deposits, penalties or sign-up required, the system was designed to be more accessible and inclusive than existing reuse models, which often come with high financial or geographical barriers to participation. Learn more here: Petaluma Reusable Cup Project.
- **Gaining more insights on scaling:** Closed Loop Partners and the NextGen Consortium are leading the Reuse Cities Initiative, a multi-brand and cross-sector collaboration to scale reusable packaging systems in the US. The program is currently focused on California, but we're interested in exploring ways to reapply our successful approach in Washington.

TABLE OF RESOURCES

Below is a list of research from both NextGen Consortium and our other industry collaborators. Please note that some of these studies are proprietary information and may be shared upon request.

	Recyclability		
Area	**Name of Study**	**Description**	**Link**
All	NextGen Consortium report "Closing the Loop on Cups: Collective Action to Advance the Recovery of Paper Cups in the U.S." (2023)	This report focuses on paper cup recovery, by assessing critical nodes of the paper cup recovery value chain—paper mills, material recovery facilities, brands, consumers and local communities—to demonstrate how, together, these stakeholders can sustain a market for paper cup recycling. Please note that while the testing methods remain relevant, some of the data around access and mills are out of date.	View Here
Consumer	NextGen Consortium's "What Happens Next: Exploring What Consumers Do with Their Single-use Cups After Purchase"	This research was conducted to answer the question: What does the U.S. consumer do with their single-use cup after they leave the point of purchase? Some key findings included:	View Summary Here (p. 34 & 35) The Full Report is

	(2022)	• ~70% of consumers throw their cup away at home, school, or the office • >70% of consumers believe their paper cup and its components can be recycled, though most put them in their trash.	Available Upon Request
Consumer	SPC's "How Clean Is Clean Enough? Consumer and Recycler Attitudes Toward Food Residue and Paper Packaging Recyclability" Blog	This project sought to better understand the impact food residue has on the recyclability and consumer treatment of paper packaging. Some key highlights include: • Education and on-pack messaging are key to reducing the amount of food residue that enters the recycling system • Most consumers already know to clean food residue off of packaging before recycling • Most recycling facilities view food residue as a minor issue, but none are open to receiving more of it	View Here.
Sortation	NextGen Consortium's "What Did It Take for Austin, Texas to Start Recycling Paper Cups?" (2025)	Circular Services' Chief Commercial Officer Joaquin Mariel talks with NextGen to learn more about why the Austin MRF decided to accept cups, and the work needed to further scale acceptance in more locations across the U.S.	View Here
Sortation	NextGen Consortium commissioned Mixed Paper Bale Audit conducted by RRS (2022)	This study was conducted to analyze the composition of a mixed paper bale, specifically focusing on the percentage of paper cups, which represent less than 0.25% of the total mixed paper bale.	Available upon request

Sortation	NextGen Consortium commissioned PE-lined paper cup flow studies (2021)	Studies conducted at 3+ U.S. based MRFs flow studies that trace the flow of paper cups at MRFs. We found that cups can be diverted to mixed paper or polycoated bales through technology (e.g. optical sorters, robotic sorters, etc.) or manual effort.	Available upon request
Sortation	Foodservice Packaging Institute's (FPI) Food Contamination Study (2022)	FPI conducted a study to learn whether foodservice packaging set out for recycling were more contaminated than food contact packaging that has traditionally been accepted at single-stream material recovery facilities (MRFs).	View Here
Sortation	WM's Press Release "WM Now Accepts To-Go Cups in Curbside Recycling" (2025)	This announcement outlines how WM will now be accepting both paper and plastic cups at its facilities.	View Here
End Markets	FPI "End Markets for Post-Consumer Paper Cups" (2026)	This map showcases all the end markets in the United States that accept paper cups. Today, more than 35 mills accept paper cups in mixed paper, sorted office paper and polycoat/carton markets.	View Here
End Markets	FPI Paper Mill Statement (2022)	FPI coordinated a unified statement from end markets nationwide that accept paper cups. The commitment is endorsed by several large mill companies, representing more than 75% of the U.S. / Canada mixed paper demand.	View Here
End Markets	NextGen Consortium's "How a South Carolina Paper Mill Started Recycling Your Paper Coffee Cups" blog post (2022)	This blog highlights a conversation with Sonoco about its announcement to accept paper cups in bales of mixed paper at its paper mill in Hartsville, South Carolina.	View here

End Markets	NextGen Consortium commissioned PE-lined paper cup repulpability and recyclability study conducted by Western Michigan University (WMU) (2020)	This study aimed to evaluate the recyclability and fiber yield of paper cups. The study found that paper cups passed both the repulpability test, demonstrating an 89% fiber yield), and recyclability tests.	Available upon request
End Markets	Georgia Pacific's "Two Georgia-Pacific Recycled Paper Mills Open Opportunities for Paper Cup Recycling" announcement (2020)	This press release announces that Georgia-Pacific now accepts mixed paper bales that contain single-use polyethylene (PE)-coated paper cups at its recycled paper mills in Green Bay, Wisconsin, and Muskogee, Oklahoma. In addition, Savannah River mill in Rincon, Georgia also accepts paper cups.	View Here
End Markets/End Market	ReMA press release on updates to ISRI specifications (2025)	This announcement outlines the inclusion of 'paper cups" to the allowable paper commodities in the inbound residential single and dual stream residential specifications.	View Here
All	Moore and Associate's "White Paper: The State of Paper Cup Recycling" (2022)	This white paper outlines the landscape of paper cups, including their infrastructure, technology, and market demand.	View Here

Reusable Cup Systems		
Name of Study	**Description**	**Link**
NextGen Consortium's press release on Petaluma Reusable Cup Project (2024)	This report highlights a significant milestone: the Petaluma Reusable Cup Project returned enough purple cups to provide environmental benefits over single-use options, automatically offering a reusable cup to every customer ordering to-go beverages citywide.	View here.

NextGen Consortium's "Launching the nation's first citywide cup reuse system" blog (2025)	This blog outlines the complexities of picking the right materials for reuse systems.	View Here.
NextGen Consortium's "Preparing businesses for the shift to reuse" (2025)	This blog outlines the blueprint for brands and retailers to partner with communities and build reuse solutions.	View Here.
Closed Loop Partners and U.S. Plastics Pact "Unpacking Customer Perspectives on Reusable Packaging" report (2024)	This report is an in-depth look at how customers engage with reusable packaging in the U.S.	View Here.

Compostable Packaging		
Name of Study	**Description**	**Link**
Closed Loop Partners, "Breaking it Down: The Realities of Compostable Packaging Disintegration in Composting Systems" (2024)	This groundbreaking report shares findings from an 18-month study that tested 23,000 units of certified compostable packaging—the largest known field test of certified, food-contact compostable packaging conducted in North America—revealing the realities of compostable plastic and fiber disintegration in diverse in-field composting conditions.	View Here
Closed Loop Partners, "Incentivizing Compostable Packaging Recovery Through EPR Programs: A Framework for Composter Reimbursement" (2025)	This first-of-its-kind report helps support Producer Responsibility Organizations (PROs), regulatory agencies and legislative staff in developing thoughtful EPR programs and EPR investment strategies. Our Composting Reimbursement Framework works as a resource for developing EPR programs that support composting infrastructure and incentivize the recovery of	View Here

	certified food-contact compostable packaging.	
Closed Loop Partners, "Don't Spoil the Soil: The Challenge of Contamination at Composting Sites" (2024)	Based on an in-field study with 10 compost manufacturers across the U.S., this study reveals the amount, types and cost of contamination at composting facilities—providing an industry baseline for contamination rates and assign a value to the cost of contamination to support the composting industry.	View Here
Closed Loop Partners, "Unpacking Labeling and Design: U.S. Consumer Perception of Compostable Packaging" (2023)	This report, created in partnership with Biodegradable Products Institute (BPI), unpacks effective design and labeling techniques to improve the proper diversion of food-contact compostable packaging to the appropriate material stream based on a national survey of 2,700 U.S. consumers.	View Here
Closed Loop Partners, "Unleashing the Economic and Environmental Potential for Food Waste Composting in the U.S.: A Guide for Investors, Policymakers and the Compost Industry" (2024)	This report dives deep into the current state of food waste composting infrastructure in the U.S., explores investment opportunities and offers policy recommendations to accelerate the scaling of this critical infrastructure. Our focus centers on commercial-scale composting facilities with the capacity to accept the most complex organics streams, including post-consumer food scraps alongside food-contact compostable packaging.	View Here
Closed Loop Partners, "How Organics Diversion Can Help Achieve Zero Waste Goals: A Blueprint for Scaling Collection and Composting Infrastructure" (2024)	This blueprint is an essential guide for municipalities, counties, cities and more seeking to develop food scraps collection programs and to work with composters to meet zero waste and climate goals.	View Here

ABOUT THE CLOSED LOOP PARTNERS CENTER FOR CIRCULAR ECONOMY

The Closed Loop Partners Center for the Circular Economy (the Closed Loop Center) is an innovation firm that helps businesses solve their most pressing material challenges. We're built on the principle that a world without waste is not only an environmental necessity, it's a path to profitable growth.
We are part of Closed Loop Partners, which also includes one of the largest privately held recycling companies in the U.S. and a leading global circular economy capital management group.

Housed at the Closed Loop Center, the NextGen Consortium is a multi-year consortium that addresses single-use foodservice packaging waste by advancing the design, commercialization and recovery of food service packaging alternatives. Starbucks and McDonald's are the founding partners of the Consortium, with The Coca-Cola Company and PepsiCo as sector lead partners. Yum! Brands, Wendy's, Delta Air Lines, Toast, Keurig Dr Pepper and Avery Dennison are supporting partners.

The NextGen Consortium takes a multi-pronged approach to addressing foodservice packaging waste through three key workstreams:

- **Paper Cups**: Strengthening recycling infrastructure to recover and recycle more paper cups after use while also exploring material science innovations that enhance the recyclability, recoverability and/or compostability of paper cup materials.
- **Polypropylene (PP) Cups**: Expanding national access to recycling for PP cups to increase the availability of rPP in the market.
- **Reuse Systems**: Advancing reusable packaging systems that keep cups in service for multiple uses. In 2026, the NextGen Consortium is preparing to launch its largest yet multi-retailer activation in Southern California. This initiative builds upon the success of the Petaluma Reusable Cup Project launched in 2024, and it's designed to address the two key barriers for reuse to scale: cost and consumer adoption.

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[i] (2026) Recycling Partnership Access Database, Recycling Partnership
[ii] (2021) Paper Cup Sortation Study, NextGen Consortium and RRS
(2023) New Technology Enables Paper Cup Recycling and Improves Food and Beverage Carton Recycling in Dallas, Waste360
[iv] (2025) TFC Recycling now accepting paper cups in residential recycling, Recycling Today
[v] (2025) Recycling cartons and coated paper products, City of Austin
[vi] (2025) WM Now Accepts To-Go Cups in Curbside Recycling, WM
[vii] (2025) ReMA Releases Updates to the ReMA's ISRI Specifications, ReMA
[viii] (2022) We Want Your Cups!, FPI

[ix](2022) Closing the Loop on Cups, Closed Loop Partners' Center for the Circular Economy
[x] (2023) Market Research for Residential Recovered Paper Containing Paper Cups, Moore and Associates
[xi] (2022) We Want Your Cups!, FPI
[xii] (2020) PE-lined fiber cup repulpability study, Western Michigan University

[xiii] (2022) Food Residue Study, FPI
[xiv] (2025) Closing the Loop on Cups: Collective Action to Advance the Recovery of Paper Cups in the U.S, NextGen Consortium
[xv] (2022) Mixed Paper Bale Composition Study, RRS & NextGen Consortium
xvi (2023) Citing sustainability, Starbucks wants to overhaul its iconic cup. Will customers go along? ABC 10

[xvii] (2022) We Want Your Cups!, FPI
[xviii] (2023) Market Research for Residential Recovered Paper Containing Paper Cups, Moore and Associates
[xix] (2024) Paper cup acceptance at US mills reaches new milestone, Recycling Today
[xx] (2020) PE-lined fiber cup repulpability study, Western Michigan University
[xxi] (2026) End Markets for Post-Consumer Paper Cups, FPI

May 8, 2026

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POLYPROPYLENE (PP) CUP INCLUSION IN WASHINGTON'S EPR STATEWIDE COLLECTION LIST

Response to Washington Department of Ecology's Request for Information

INTRODUCTION

This submission responds to the Washington Department of Ecology's Request for Information (RFI) regarding the requirements outlined in Sections 090 and 110 of the Recycling Reform Act. In this submission, we are focusing on the inclusion of polypropylene (PP) cups in the future statewide collection list because of their growing recyclability, market demand, and their potential to comply with food-grade post-consumer mandates. In the following sections, we present studies, research findings, and insights gathered from years of industry discussions to demonstrate the significant value of recycling polypropylene cups.

SECTION A. REQUEST FOR INFORMATION FOR WASHINGTON'S STATEWIDE COLLECTION LISTS

A1: Compatibility with Collection, Sorting, and Processing Infrastructure

- **Recycling access to polypropylene (PP) cups today is growing.** More than half of the United States can recycle PP cups in their local residential programs.
    - PP cups have earned the How2Recycle® "Widely Recyclable" designation, North America's most recognized on-pack disposal label. This milestone means more than 60% of U.S. households can recycle these cups through curbside programs or drop-off programs.[i]
    - According to The Recycling Partnership's access database, Washington state has nearly 50% of the state already accepting PP cups.
    - Most major cities already accept PP cups, and PP cups are included in multiple statewide guidance lists for accepted recyclables, including Connecticut, Delaware, and Massachusetts.
    - Emerging extended producer responsibility (EPR) programs in the U.S. include PP cups in their accepted material list for the state including Colorado and Maine.

- **PP cups can be effectively sorted by Material Recovery Facilities (MRFs)**. MRFs across the country have demonstrated the ability to capture PP cups alongside other PP packaging.
    - In conversations with Washington's MRF operators, they largely agreed that PP cups are acceptable in their recycling programs and can be captured effectively.
    - A 2024 MRF flow study, commissioned by the NextGen Consortium, The Recycling Partnership (TRP), and the Foodservice Packaging Institute (FPI), found that PP cups are typically sorted effectively, and often better than other commonly accepted PP container formats.[ii]
    - The NextGen Consortium led bale audits, and an AI-driven composition analysis showed that a significant volume of cups is effectively sorted to the PP line and captured in a PP bale for recovery. This is true in markets where PP cups are both explicitly and implicitly accepted. [iii]
    - Since its inception in 2020, The Recycling Partnership's Polypropylene Recycling Coalition (PPRC) has awarded $19 million in grants across the country, supporting communities with recycling education as well as MRFs, secondary processors, and reclaimers with equipment investments. This has resulted in 48 million more residents having access to PP recycling.[iv]
    - WM, North America's largest recycler, has added PP plastic cups to its universal list of accepted recyclable materials, supporting community

recycling programs with updates to their resident education, overall reflecting system-level confidence in capture and resale.[v]

- **End markets can process and recycle PP cups.** Some insights we have gained over the years include:
    - A study conducted by RRS on behalf of the Sustainable Packaging Coalition (SPC) interviewed plastic reclaimers to assess the recycled PP market and identify recoverable items. Covering 90% of North America's PP reclamation capacity, these reclaimers process all tubs, lids, cups, and thermoforms of the same resin type without any prohibitive formats.[vi]
    - The Foodservice Packaging Institute (FPI) maintains an end market list for foodservice packaging, including polypropylene; you can view it here. The map includes some nearby facilities to WA -- Merlin, EFS, and Denton Plastics.[vii]
    - Many reclaimers purchasing PP and mixed-plastic bales are confirmed to already accept PP cups. Furthermore, PP cups are explicitly referenced in the APR Model Bale Spec for PP Small Rigids, issued by the Association of Plastic Recyclers (APR).[viii]
    - Industry initiatives like the APR Demand Champions Program, supported by The Recycling Partnership, further strengthen end-market certainty by championing the use of post-consumer recycled content in products and packaging.[ix]

A2: Ease of Material Identification and Preparation for Recycling

- **Food/Liquid Contamination is not an issue**: A contamination study conducted by FPI across multiple MRFs found PP cups had a food contamination rate of just 2%, lower than many other accepted formats. In addition, in 2024, conversations led by the NextGen Consortium, several MRF operators did not cite PP cups as a contamination concern.[x]

A4: Packaging Design Characteristics and Material Flow Information

- **PP cups make up a significant portion of PP bales**. The NextGen Consortium has conducted various studies to better understand the composition of PP bales and the quantities of food-grade PP that comprise them, including beverage cups. The results included:
    - A 2022 NextGen Consortium bale characterization study from two MRFs (4 bales total), conducted by RRS, found that: 48% of recovered PP was presumed food-grade, 26% was clear, food-grade PP, and Clear PP beverage cups represented 14% of the total PP bale material.[xi]
    - A subsequent study led by the NextGen Consortium, using Greyparrot AI vision systems across four MRFs, analyzed more than 40 million items and found: Clear containers (including cups) made up more than half of the captured PP; and that clear PP cups accounted for over 30% of all clear PP captured.[xii]

- **PP cups are designed for recyclability**. According to the APR Design for Recycling Guide, PP cups are designed to be recycled and fall under the "PP Small Rigid Plastics Bale" specs.[xiii]

A5: End Market Viability and Responsible Market Conditions

- **Recovered plastic demand is high.** According to a Closed Loop Partners study, while plastic demand is growing, only 6% of plastic demand is currently met by recycled supply.[xiv]
- **PP reclaimers accept cups**. According to a study from RRS, as part of the 2020-21 Centralized Study of Availability of Recycling, reclaimers, representing 90% of known PP reclamation capacity, can recover and process all tubs, lids, cups, and thermoforms of the same resin type together.[xv]
- **Large processors are vocal about their desire for more PP**. KW Plastics—the world's largest plastics recycler—has affirmed consistent domestic demand for post-consumer polypropylene and its role in supporting U.S. manufacturing and a circular [xvi].[xvii]

SECTION B. REQUEST FOR INFORMATION ON WASHINGTON'S NEEDS ASSESSMENT

B2: Recycling Drop-Off Services and Reuse and Refill Infrastructure

The NextGen Consortium has been testing reusable cup systems since its inception in 2018. Below are some of our key insights to help shape WA's strategies for implementation and investment.

- **Testing reuse systems is vital.** For three months in 2024, 30 restaurants in the City of Petaluma, CA, swapped their single-use cups for to-go reusable cups that could be returned anywhere in town via a network of over 60 local return bins. With no deposits, penalties, or sign-up required, the system was designed to be more accessible and inclusive than existing reuse models, which often come with high financial or geographical barriers to participation. Learn more here: Petaluma Reusable Cup Project.
- **Gaining more insights on scaling:** Closed Loop Partners and the NextGen Consortium are leading the Reuse Cities Initiative, a multi-brand and cross-sector collaboration to scale reusable packaging systems in the US. The program is currently focused on California, but we're interested in exploring ways to reapply upon our successful approach in Washington.

TABLE OF RESOURCES

Below is a list of research from the NextGen Consortium and our other industry collaborators. Please note that some of these studies are proprietary information and will need to be shared upon request.

	Recyclability		
Area	**Name of Study**	**Description**	**Link**
Consumer	Greenblue/How2Recycle's Widely Recyclable" designation announcement (2026)	This announcement celebrates polypropylene beverage cups earning the Widely Recyclable designation from How2Recycle®. This milestone means more than 60% of U.S. households can recycle these cups through curbside programs or drop-off programs.	View Here
Consumer	NextGen Consortium's "What Happens Next: Exploring What Consumers Do with Their Single-use Cups After Purchase" (2022)	This research was conducted to answer the question: What does the U.S. consumer do with their single-use cold beverage cup after they leave the point of purchase? We found that: • Half of consumers typically put their cup in the trash and a quarter put it in a recycling bin • 45% of customers surveyed disposed of their cups at home • 72% of customers surveyed believed cold plastic cups are recyclable	Available Upon Request
Consumer / Sortation	WM's Press Release "WM Now Accepts To-Go Cups in Curbside Recycling" (2025)	This announcement outlines how it will now be accepting both paper and plastic cups (including PP) at its facilities.	View Here
Sortation	NextGen Consortium and The Recycling Partnership's one-pager	This one-pager outlines the potential revenue for MRF if they start accepting PP cups. It	Available upon request

	on the economic benefit of adding PP cups for MRFs (2025)	is estimated that MRF could profit from adding PP cups to their recycling programs both in terms of added material to bales as well as avoided landfill costs.	
Sortation	NextGen Consortium's "WHAT'S IN A BALE?" report (2025)	The study included tests in 4 US MRF, using AI powered vision systems from Greyparrot, to characterize 45M individual items over roughly 3 months. The results showed that of the PP captured, a significant volume was clear or white food-grade content. Of the PP observed 75-85% of it was clear and white material, with a high likelihood of being food-grade. Notably, more than 50% of the PP was identified as clear, likely food-grade containers. Of those clear containers, more than 30% were beverage cups.	View Here
Sortation	NextGen Consortium commissioned PP Cup Bale Audit, conducted by RRS (2022)	This study was conducted to better understand the composition of polypropylene bales produced by the residential curbside recycling system in communities that accept polypropylene. Two MRFs in large metro areas participated, and a total of four bales were audited. Some key findings included: • More than half of the PP identified was likely food-grade • PP Cups represented 14% of the bale on average across MRF	Available upon Request

		bales, including >25% at one of the facilities • At one location, clear PP cups were clearly included in resident guidance. At that facility, cups represented >25% of the total bale.	
Sortation	RRS, FPI and TRP's PP MRF Flow Study Results (2025)	This study was conducted across four U.S. MRFs, and white and clear cups were effectively sorted and captured as well or better than other PP items.	Available upon request
Sortation	Foodservice Packaging Institute's (FPI) Food Contamination Study (2022)	FPI conducted a study to learn whether foodservice packaging set out for recycling were more contaminated than food contact packaging that has traditionally been accepted at single-stream material recovery facilities (MRFs). It found PP cups had a food contamination rate of just 2%, lower than many other accepted formats.	View Here
End Market	FPI's End Market Map (2026)	This interactive map shows all the end markets in the United States for PP and mixed plastic bales.	View Here
End Market	RRS's "Reclamation of PP Cups and other PP Packaging Items" report (2020)	RRS conducted interviews with various plastics reclaimers for the purpose of understanding the recycled PP postconsumer market requirements and determining what items are recovered. It found that these reclaimers can recover and process all tubs, lids, cups and thermoforms of the same resin type together. The reclaimers that were interviewed did not	View Here

		report any formats as "prohibitive" in their systems when recovering PP.	
End Markets	NextGen Consortium Food-Grade rPP Workshop Key Findings (2025)	In September 2025, the NextGen Consortium convened leaders from across the polypropylene (PP) recycling value chain, including reclaimers, MRFs and converters, to address the availability, collection, and recycling of food-grade PP. The workshop sought to identify gaps and solutions at each node of the PP value chain. All of the representatives in the room affirmed that PP cups should be recycled, and the focus of the conversation was more on how to get more of this valuable material back into foodservice packaging.	Available upon request

Reusable Cup Systems		
Name of Study	**Description**	**Link**
NextGen Consortium's press release on Petaluma Reusable Cup Project (2024)	This report highlights a significant milestone: the Petaluma Reusable Cup Project returned enough purple cups to provide environmental benefits over single-use options, automatically offering a reusable cup to every customer ordering to-go beverages citywide.	View here.
NextGen Consortium's "Launching the nation's first citywide cup reuse system" blog (2025)	This blog outlines the complexities of picking the right materials for reuse systems.	View Here.
NextGen Consortium's "Preparing businesses for the shift to reuse"	This blog outlines the blueprint for brands and retailers to partner with	View Here.

(2025)	communities and build reuse solutions.	
Closed Loop Partners and U.S. Plastics Pact "Unpacking Customer Perspectives on Reusable Packaging" report (2024)	This report is an in-depth look at how customers engage with reusable packaging in the U.S.	View Here.

Compostable Packaging		
Name of Study	**Description**	**Link**
Closed Loop Partners, "Breaking it Down: The Realities of Compostable Packaging Disintegration in Composting Systems" (2024)	This groundbreaking report shares findings from an 18-month study that tested 23,000 units of certified compostable packaging—the largest known field test of certified, food-contact compostable packaging conducted in North America—revealing the realities of compostable plastic and fiber disintegration in diverse in-field composting conditions.	View Here
Closed Loop Partners, "Incentivizing Compostable Packaging Recovery Through EPR Programs: A Framework for Composter Reimbursement" (2025)	This first-of-its-kind report helps support Producer Responsibility Organizations (PROs), regulatory agencies and legislative staff in developing thoughtful EPR programs and EPR investment strategies. Our Composting Reimbursement Framework works as a resource for developing EPR programs that support composting infrastructure and incentivize the recovery of certified food-contact compostable packaging.	View Here
Closed Loop Partners, "Don't Spoil the Soil: The Challenge of Contamination at Composting Sites" (2024)	Based on an in-field study with 10 compost manufacturers across the U.S., this study reveals the amount, types and cost of contamination at composting facilities—providing an industry baseline for contamination rates and assign a value to the cost of	View Here

	contamination to support the composting industry.	
Closed Loop Partners, "Unpacking Labeling and Design: U.S. Consumer Perception of Compostable Packaging" (2023)	This report, created in partnership with Biodegradable Products Institute (BPI), unpacks effective design and labeling techniques to improve the proper diversion of food-contact compostable packaging to the appropriate material stream based on a national survey of 2,700 U.S. consumers.	View Here
Closed Loop Partners, "Unleashing the Economic and Environmental Potential for Food Waste Composting in the U.S.: A Guide for Investors, Policymakers and the Compost Industry" (2024)	This report dives deep into the current state of food waste composting infrastructure in the U.S., explores investment opportunities and offers policy recommendations to accelerate the scaling of this critical infrastructure. Our focus centers on commercial-scale composting facilities with the capacity to accept the most complex organics streams, including post-consumer food scraps alongside food-contact compostable packaging.	View Here
Closed Loop Partners, "How Organics Diversion Can Help Achieve Zero Waste Goals: A Blueprint for Scaling Collection and Composting Infrastructure" (2024)	This blueprint is an essential guide for municipalities, counties, cities and more seeking to develop food scraps collection programs and to work with composters to meet zero waste and climate goals.	View Here

ABOUT THE CLOSED LOOP PARTNERS CENTER FOR CIRCULAR ECONOMY

Closed Loop Partners' Center for the Circular Economy (the Closed Loop Center) is an innovation firm that helps businesses solve their most pressing material challenges. We're built on the principle that a world without waste is not only an environmental necessity, it's a path to profitable growth. We are part of Closed Loop Partners, which also includes one of the largest privately held recycling companies in the U.S. and a leading global circular economy capital management group.

Housed at the Closed Loop Center, the NextGen Consortium is a multi-year consortium that addresses single-use foodservice packaging waste by advancing the design, commercialization and recovery of food service packaging alternatives. Starbucks and McDonald's are the founding partners of the Consortium, with The Coca-Cola Company and PepsiCo as sector lead partners. Yum! Brands, Wendy's, Delta Air Lines, Toast, Keurig Dr Pepper and Avery Dennison are supporting partners.

The NextGen Consortium takes a multi-pronged approach to addressing foodservice packaging waste through three key workstreams:

- **Fiber Cups**: Strengthening recycling infrastructure to recover and recycle more fiber cups after use while also exploring material science innovations that enhance the recyclability, recoverability and/or compostability of paper cup materials.
- **Polypropylene (PP) Cups**: Expanding national access to recycling for PP cups to increase the availability of rPP in the market.
- **Reuse Systems**: Advancing reusable packaging systems that keep cups in service for multiple uses. In 2026, the NextGen Consortium is preparing to launch its largest yet multi-retailer activation in Southern California. This initiative builds upon the success of the Petaluma Reusable Cup Project launched in 2024, and it's designed to address the two key barriers for reuse to scale: cost and consumer adoption.

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[i] (2026) Polypropylene Cups Earn Widely Recyclable Designation, Expanding Access to Curbside Recycling Nationwide, GreenBlue
[ii] (2022) Food Residue Study, FPI
[iii] (2025) What's in a Bale? NextGen Consortium
[iv] (2026) The Polypropylene Recycling Coalition, The Recycling Partnership
[v] (2025) WM now accepts to-go cups in curbside recycling, Recycling Today
[vi] (2021) Reclamation of PP Cups and other PP Packaging Items, RRS
[vii] (2026) End Market Map, FPI
[viii] (2023) Model Bale Specifications: PP Small Rigid Plastics, APR
[ix] (2023) Recycling Demand Champions, APR
[x] [x] (2022) Food Residue Study, FPI
[xi] (2022) PP Cup Bale Audit, NextGen Consortium and RRS

[xii] (2025) What's in a Bale? NextGen Consortium
[xiii] (2023) Model Bale Specifications: Small Rigid Plastics, APR
[xiv] (2022) Advancing Circular Systems for Plastics, Closed Loop Partners
[xv] (2022) Reclamation of PP Cups and other PP Packaging Items, RRS

[xvii] (2026) Polypropylene Cups Earn Widely Recyclable Designation, Expanding Access to Curbside Recycling Nationwide, Starbucks