

**DATE:** July 1, 2019  
**TO:** Seattle City Council  
**FROM:** Mami Hara, General Manager & CEO – Seattle Public Utilities (SPU)  
**RE:** 2019 Report on Seattle Bag Ban Compliance

---

## **BACKGROUND**

This memorandum was prepared in compliance with the annual bag ban reporting requirement established in [Ordinance 125165](#). It builds on the 2018 Report on Seattle Bag Ban Compliance submitted to Council on July 1, 2018 (included as Attachment 1) and is focused on specific notable developments and next steps. The 2018 Report provides detailed background that is not repeated within this Report.

The Seattle City Council in 2011 passed [Ordinance 123775](#), which banned retailers from providing single-use plastic and bio-degradable carry-out bags. In 2016, the Council approved [Ordinance 125165](#), making several revisions to Seattle’s bag regulations, including requiring compostable bags be properly labeled and tinted either green or brown, disallowing the distribution of non-compostable plastic bags that are tinted green or brown, and creating an annual bag ban reporting requirement to Council. These ordinances together make up [SMC 21.36.100](#).

Seattle’s responsibility for addressing single-use plastic carry-out bags is further emphasized by Seattle City Council in [Resolution 30990](#), which: (1) reaffirmed the City’s 60% recycling goal and set a longer-term goal of 70% recycling along with targets for waste reduction, and (2) called for studies on how to reduce Seattleites’ use of hard-to-recycle materials, many of them plastics, and specifically required SPU to propose strategies (including bans) to discourage the use of disposable plastic carry-out bags.

Seattle’s bag ban ordinances were implemented primarily to address concerns that the production, use, and disposal of plastic carry-out bags have significant adverse impacts on the environment, health, safety, and welfare of Seattle residents. Key considerations include:

- Conserving energy and natural resources
- Reducing waste and controlling litter throughout Seattle
- Reducing marine litter and pollution
- Reducing solid waste disposal costs

As part of the annual reporting requirements, SPU must evaluate at a minimum:

1. The waste and litter reduction benefits of the City’s bag ban program,
2. Strategies to increase bag ban compliance in all stores,
3. The effectiveness of this ordinance in reducing the number of non-compostable bags contaminating the waste stream, and
4. Strategies to address the impacts of loose plastic bags on curbside recycling

Findings and recommendations are due to the City Council no later than July 1 each year.

This memorandum serves as SPU’s 2019 fulfillment of this reporting requirement to Council.

**SUMMARY OF KEY UPDATES AND NEXT STEPS**

Key Updates	Next Steps
<b><i>Waste and Litter Reduction Benefits</i></b>	
<p>Nine additional cities have adopted policies since January 2018, three in the vicinity of Seattle (Burien, Lake Forest Park and Kenmore).</p> <p>State legislation was introduced, though it did not pass. ESSB 5323 was an act relating to reducing plastic from plastic bags by establishing minimum state standards for the use of bags at retail establishments and would have banned plastic and compostable film carry-out bags statewide, including from restaurants for take-out food.</p> <p>Regarding litter, Zero Waste Washington is in the early stages of work with the Duwamish Valley Youth Corp to quantify litter in the right-of-way and public spaces.</p>	<p>Continue to serve as a resource for other cities seeking to implement plastic bag bans, and in support of state legislation addressing plastic bags.</p> <p>Monitor efforts by Zero Waste Washington and others to develop protocols and characterize litter.</p>
<b><i>Strategies to Increase Bag Ban Compliance</i></b>	
<p>In 2018, the SPU Green Business Team documented an overall compliance rate of 85% (193 out of 227). In 2017, SPU consultants observed an overall compliance rate of 82% (146 out of 177).</p> <p>Compliance rates in Seattle are anticipated to further increase due to on-going outreach and as bans on plastic bags expand to other cities and state-wide legislation is enacted.</p> <p>Bag regulation outreach materials are available in 18 languages, including English, Amharic, Arabic, Chinese, Hindi, Indonesian, Japanese, Korean, Khmer, Laotian, Oromo, Russian, Somali, Spanish, Tagalog, Thai, Tigrinya, and Vietnamese. This information is now available in transcreated form in Chinese with Spanish under development and Vietnamese next.</p>	<p>Continue bag ban site visits this year, including culturally competent and in-language bag ban outreach and communications.</p> <p>Continue to serve as a resource for other cities seeking to implement plastic bag bans, and in support of state legislation addressing plastic bags.</p>
<b><i>Effectiveness in Reducing Non-Compostable Bags Contaminating (Organics) Waste Stream</i></b>	
<p>Surveying in 2018 showed that stores appear to have shifted away from green tinted plastic bags, as required by ordinance, as they were observed at less than 10% of surveyed grocery stores (6 of 63).</p> <p>Effectiveness of reducing plastic film contamination at area compost facilities will be improved by</p>	<p>Continue to incorporate the bag tinting requirements into grocery outreach in 2019 and provide technical assistance to those stores observed using non-compliant tinted bags. Revise materials and messaging to include any additional certification, labeling, and tinting requirements enacted through state legislation.</p>

Key Updates	Next Steps
<p>expanded and consistent requirements in the surrounding area or state-wide.</p> <p>HB 1569, relating to marketing the degradability of products, was passed in the 2019 Legislative Session and establishes similar requirements statewide as are found in SMC 21.36.100 regarding compostability certification, labeling, and tinting requirements of compostable and non-compostable bags. Effective July 1, 2020, compostable bags statewide must be tinted green or brown and manufacturers are discouraged from tinting non-compostable bags green or brown.</p> <p>SB 5323/HB 1205, relating to reducing pollution from plastic bags by establishing minimum state standards for the use of bags at retail establishments, had wide-spread support but did not ultimately pass in the 2019 Legislative Session. It also included many of the requirements found in SMC 21.36.100. It will be reintroduced in 2020.</p> <p>Local plastic bag bans, most with requirements similar to Seattle, continue to spread across the state and now number 28, with nine additional bans passed since January 2018.</p>	<p>Continue to serve as a resource for other cities seeking to implement plastic bag bans, and in support of state legislation addressing plastic bags. Advise these efforts to include labeling and tinting related requirements.</p>
<b><i>Strategies to Address Impacts of Loose Plastic Bags on Curbside Recycling</i></b>	
<p>Plastic bags and film collected via curbside collection programs contaminate otherwise valuable commodities, increase labor and processing costs, and create safety risks. Plastic bags and film collected curbside also have limited viable markets, most of which are in Southeast Asia where there are already significant environmental justice concerns around the handling of post-consumer plastics and the contribution to global marine plastic pollution.</p> <p>China's Operation Blue Skies (formerly National Sword) has brought the need to protect the commodity value of other recyclables and to responsibly handle plastic bags to the forefront.</p> <p>The Responsible Recycling Task Force has made a number of recommendations regarding plastic bags, including that they be removed from any area curbside recycling collection programs that</p>	<p>Continue to work with regional recycling task forces, including the Responsible Recycling Task Force, to implement recommendations relevant to plastic bags and film, including removing plastic bags from curbside collection programs.</p> <p>SPU is in a phased process of removing plastic bags from the curbside recycling acceptance lists, with the process planned to be complete by Q1 2020.</p> <p>SPU will work with an industry led task force to seek improvements and expansion of retail drop-off sites for plastic bags and film, and other improvements to plastic recycling in the Greater Seattle Area.</p>

Key Updates	Next Steps
<p>currently allow them, that retail drop-off options be improved and expanded, and that “reusable bag” legislation be supported.</p> <p>Seattle Solid Waste Advisory Committee concurred that plastic bags be taken out of curbside recycling collection and provided a recommendation letter to SPU dated March 6, 2019.</p> <p>SPU is phasing out allowing plastic bags in curbside recycling collection, with the phase out to be completed Q1 2020. SPU is working with other surrounding curbside programs to do the same.</p> <p>SPU is also working with an industry led task force to improve and expand retail bag and film drop-off options.</p> <p>Messaging on removal of plastic bags from curbside recycling and redirecting bags to retail drop-off recycling options or curbside disposal, is being coordinated regionally by the Responsible Recycling Communication Consortium.</p> <p>These regional efforts will allow for consistent messaging that plastic bags are a contaminant in curbside recycling containers and are not allowed.</p>	
<p><b>2019 State Legislation Related to Plastic Bags</b></p>	
<p>State legislation was proposed during the 2019 legislative session that raised a number of issues related to:</p> <ul style="list-style-type: none"> <li>• Preemption of existing and future local legislation pertaining to plastic carry-out bags, including preempting Seattle’s existing ordinance;</li> <li>• Allowing 2.25 mil plastic “reusable” carry-out bags rather than banning their use or requiring them to be at minimum 4 mil; and,</li> <li>• Banning the use of compostable bags for carry-out, including from restaurants.</li> </ul>	<p>SPU will work with our policy staff and the Office of Intergovernmental Relations to determine how to address these issues in the 2020 Legislative Session.</p> <p>To address issues around compostable film bags for take-out food, SPU will host a meeting between producers of compostable bags and those skeptical of their merits in Autumn 2019 and seek to find common ground on this issue before the next legislative session.</p>

Key Updates	Next Steps
<b>Regional Activity and Recommendations – Removal of Plastic Bags from Curbside Recycling</b>	
<p>A regional task force called the Responsible Recycling Task Force (RRTF) was convened in early 2018 by King County Solid Waste, with the assistance of SPU and jurisdictions from throughout King County to conduct a deep dive into the challenges presented by the China bans on mixed waste paper and mixed plastic materials. The Final Report of the RRTF was published in January 2019, and one of the key recommendations was the removal of plastic bags and film from curbside recycling programs. The Seattle Solid Waste Advisory Committee endorsed this recommendation in a letter to SPU in March 2019.</p>	<p>SPU will be phasing in removal of plastic bags and film from the curbside recycling program, with the intent to have plastic bags removed from curbside recycling collection in Q1 2020.</p> <p>SPU will be working with an industry-led task force to expand and improve of opportunities for retail drop-off locations for customers to take their plastic bags and film.</p>
<b>Opportunities in 2019</b>	
<p>There are a number of opportunities that could be considered based on lessons learned by staff from SPU work, other jurisdictions that have more recently adopted bag-related legislation, and discussions resulting from introduction of state legislation. Those opportunities include:</p> <ul style="list-style-type: none"> <li>• Extending requirements, including pass-through charges, to include bags used for take-out food and by meal delivery services.</li> <li>• Allowing compostable bags for take-out food if they include messaging about using the bag for food scraps to go into the compost container.</li> <li>• Increasing the pass-through fee to \$0.10.</li> <li>• If “reusable” plastic bags continue to be allowed, increasing the mil thickness of these bags to 4 mil, and/or more significantly increase the pass-through fee for these bags to encourage their actual reuse and encourage customers to use more durable reusable bags.</li> </ul>	<p>To be determined by Council.</p>

**SOURCES OF PLASTIC BAGS IN SEATTLE**

Since the plastic bag ban went into effect in 2012, plastic bags have entered Seattle’s waste stream primarily in three ways:

*(1) Businesses outside of Seattle provide plastic carry-out bags to customers.*

SPU continues to collaborate on waste prevention efforts with staff from neighboring cities and counties, and at the state level, including sharing information and lessons learned in Seattle as new policies are under consideration. Plastic bag waste and litter originating from outside of Seattle will be reduced within the city as additional policies are put in place elsewhere. Appendices A1 and A2 include maps of neighboring cities and jurisdictions throughout Washington State that have adopted plastic bag regulations.

(2) *Seattle restaurants provide take-out food in plastic bags to customers.*

Seattle's bag ban currently permits restaurants to provide customers with plastic bags for take-out orders. With the increase in take-out orders and third-party delivery services like Uber Eats, Grubhub, and Caviar, take-out bags used by restaurants is a growing concern.

(3) *Non-compliant Seattle retail stores offer plastic carry-out bags to customers.*

Estimated non-compliance rates in the retail sector based on a sample of 227 Seattle businesses across all seven council districts is summarized below.

### **WASTE AND LITTER REDUCTION BENEFITS**

There have been substantial efforts to reduce plastic carry-out bags in the waste stream through additional local government bag bans in jurisdictions across the state. Nine additional cities have adopted policies since 2018, three in the vicinity of Seattle (Burien, Lake Forest Park and Kenmore). Zero Waste Washington (ZWW) is currently working with a number of other jurisdictions and communities to adopt local policy. These additional policies assist to reduce plastic carry-out bags coming into Seattle from outside the city and help reduce plastic bag contamination at local Material Recovery Facilities.

State legislation was also introduced, though it did not pass. ESSB 5323, an act relating to reducing plastic from plastic bags by establishing minimum state standards for the use of bags at retail establishments, would have banned plastic carry-out bags statewide, including from restaurants for take-out food. State policy, if compatible with and improving on local policy, will further reduce bags in the waste system, including in Seattle.

There is no specific work to report this year related to litter. ZWW is in the process of developing and piloting a comprehensive litter assessment protocol to provide a consistent and comparable measurement of litter composition throughout Washington State. ZWW has just begun work with the Duwamish Valley Youth Corp to quantify litter in rights-of-way and public spaces. Pending pilot results, SPU may find utility in integrating this protocol into existing litter-related programs or using information collected from Seattle clean-ups to establish a baseline plastic bag litter assessment.

### **STRATEGIES TO INCREASE BAG BAN COMPLIANCE**

In 2018, SPU worked with two teams to collect data on bag use among Seattle retail businesses: Evans School Graduate Consultants (ESGC) and SPU's Green Business Team (GBT), which includes Cascadia Consulting Group. The 2018 report included final results from the ESGC survey field work visiting 70 convenience stores and GBT's survey field work visiting 107 stores. Since the submission of the 2018 report, GBT surveyed an additional 120 stores and produced a report titled 2018 SPU Bag Ban Outreach Summary, attached as Appendix B.

The total number of retailers visited by GBT in each sector and the compliance rates observed is included in *Table 1* below.

**Table 1: Retail Sector Sample Sizes and Compliance Rates**

Retail Sector	Sample Size	Number in Compliance	Percentage in Compliance
Large Grocery	62	58	94%
Medium Grocery	44	37	84%
Ethnic Grocery & Produce Stores	45	27	60%
Large Retail	36	34	94%
Small Retail	40	37	93%
<b>Totals</b>	<b>227</b>	<b>193</b>	<b>85%</b>

The 2018 Report showed an 82% compliance rate of stores surveyed by the ESGC and GBT. The final results of all the stores surveyed by the GBT in 2018 show that 85% are fully compliant with the bag regulations. Of the ethnic grocery and product stores visited, 40% were non-compliant. Among non-compliant businesses, interviewees reported their top three barriers to compliance were (note that interviewees could provide more than one response):

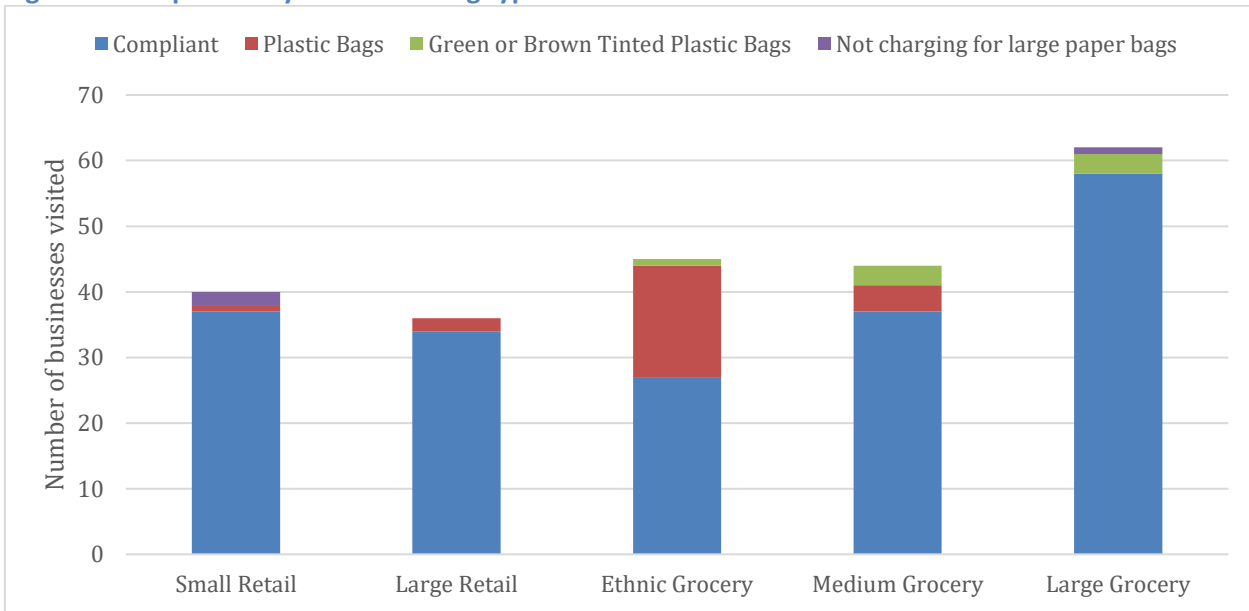
- Unaware of ordinance or ordinance specifics (47%).
- Language barriers (29%).
- Added cost to operations (24%).

When broken out by Council District, observed compliance rates were as follows:

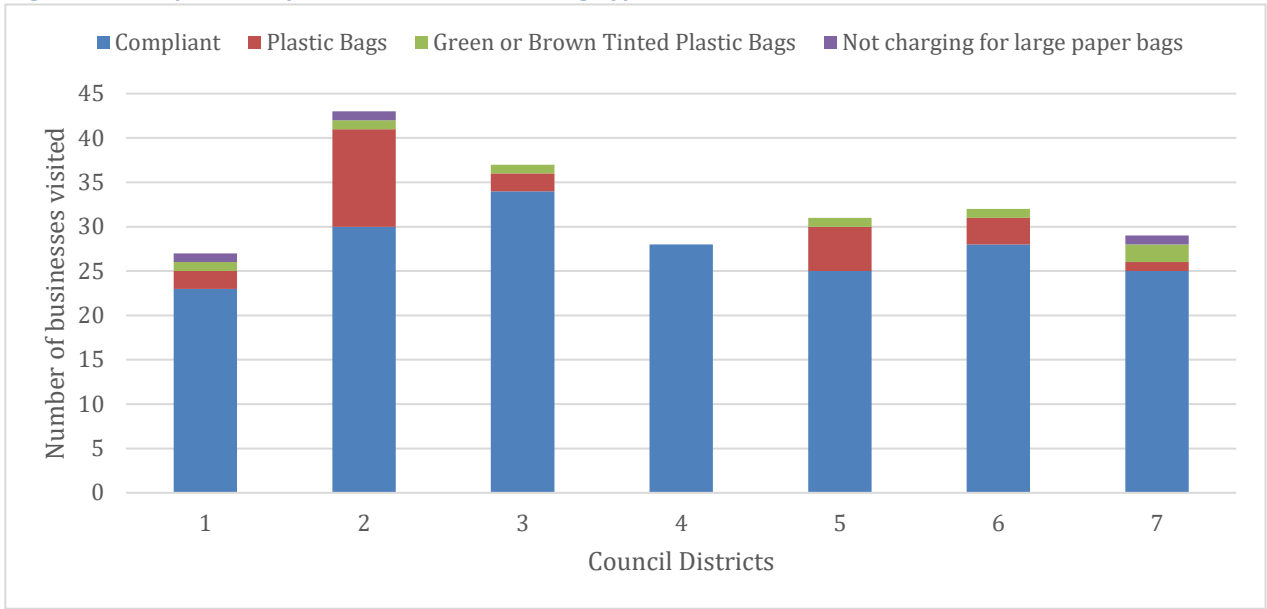
- 1 85%
- 2 70%
- 3 92%
- 4 100%
- 5 81%
- 6 88%
- 7 86%

The following Figures 1 and 2 show the reasons that businesses were found to be out of compliance and the relationship to those that were compliant, which was the majority of businesses in each sector and district.

**Figure 1: Compliance by sector and bag type**



**Figure 2: Compliance by Council District and bag type**



Since 40% of ethnic stores were found to be out of compliance and lack of awareness of the ordinance and language barriers were the top two barriers to compliance noted, SPU will continue and increase efforts to assist ethnic businesses through the following steps:

- Increased Awareness:** All 227 retailers visited in 2018 by GBT received updated resources such as supplier contacts and in-language flyers and signage to inform staff and customers about bag options and requirements. Bi-lingual outreach staff provided in-person support in Spanish, Chinese, Korean, and Vietnamese. Outreach staff also revisited 18 of the 34 non-compliant businesses to offer technical assistance and support. SPU delayed sending an updated bag ban direct mailing as a reminder of bag rules and other recommended best practices due to the introduction of state legislation, which if passed, would potentially have altered the rules, thereby making the mailing inaccurate and ill timed. The legislation did not pass but will be reintroduced in the 2020 Legislative Session. A mailing to businesses will be sent in late 2020 after the results of state or local rule changes are known.
- Overcoming Language and Cultural Barriers:** Bag regulation outreach materials are available in 18 languages, including English, Amharic, Arabic, Chinese, Hindi, Indonesian, Japanese, Korean, Khmer, Laotian, Oromo, Russian, Somali, Spanish, Tagalog, Thai, Tigrinya, and Vietnamese. The Amharic translation is attached as Appendix C. SPU is going through a process to transcreate outreach materials, including bag outreach materials, so that they are more culturally appropriate and effective. This is a multi-year effort with the transcreation work in Chinese completed, Spanish being addressed currently, and Vietnamese is next. The Chinese transcreated bag information is attached as Appendix D. SPU contracts with community partners like ECOSS, Tilth Alliance, and Cascadia Consulting Group, who have team members that provide culturally competent, in-language outreach to Seattle businesses. SPU will continue to support these outreach endeavors in 2019.

**What is transcreation?**  
*Transcreation is one tool SPU is using to effectively deliver solid waste information to immigrant and refugee communities. Straight linguistic translation can lead to inaccurate and ineffective information since it does not consider cultural context. Through the transcreation process, we identify key motivators, barriers, visual preferences, and terminology so that the final material we produce is culturally and linguistically relevant and accurate.*



### **EFFECTIVENESS IN REDUCING NON-COMPOSTABLE BAGS CONTAMINATING THE COMPOST STREAM**

In 2016, Council approved [Ordinance 125165](#), making several revisions to Seattle’s bag regulations, including requiring compostable bags be properly labeled and tinted either green or brown, and disallowing the distribution of non-compostable plastic bags that are tinted green or brown. Survey work has shown a high rate of compliance with these tinting requirements. While SPU can deduce that this has resulted in fewer non-compostable bags being accidentally used to contain food scraps for placing in compost containers from Seattle, area compost facilities receive materials from all over the region and plastic film and bags continue to be a problem. Non-compostable bags that are tinted green and have confusing messaging on them continue to be available in areas surrounding Seattle.

State legislation was passed in the 2019 Legislative Session to address this and related issues, modeled in part on Seattle’s bag and food service packaging rules. ESHB 1569 Product Degradability is effective July 1, 2020.

Similar to Seattle legislation, ESHB 1569 requires in part:

- Plastic products cannot be labeled with the terms “biodegradable,” “degradable,” “decomposable,” “oxo-degradable,” or any similar terms.
- Compostable plastic bags and other compostable plastics must meet testing standards and be labeled as compostable.
- Compostable plastic bags must be tinted green or brown, have green or brown labeling, or have green or brown stripping.
- The legislation discourages, but does not outright ban, as does Seattle’s bag ordinance, green or brown tinting of bags that are not compostable.

ESSB 5323, as described above, would have more closely mirrored Seattle’s requirements related to tinting, requiring compostable bags to be tinted green or brown and not allowing the green or brown tinting of polyethylene bags. This legislation will be reintroduced in the 2020.

ESHB 1569 as passed, and ESSB 5323 if it passes in 2020, will create a uniform means of eliminating contamination at local compost facilities and across the state due to misleading and confusing labeling and tinting of non-compostable plastic bags.

### **STRATEGIES TO ADDRESS IMPACTS OF LOOSE PLASTIC BAGS ON CURBSIDE RECYCLING**

Given the concerns and best practices highlighted in the 2018 report, SPU previously reported it was involved in or considering the following next steps:

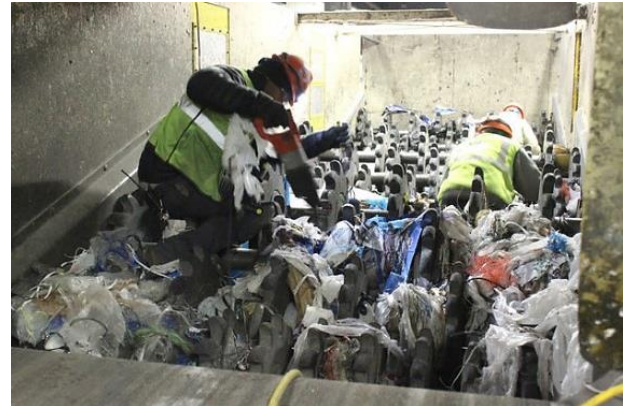
- Partnering in discussions with neighboring jurisdictions around the state.
- Considering removing plastic bags and film from the mix of materials accepted in Seattle’s curbside recycling program.
- Promoting existing retailer plastic bag and film drop-off programs.
- Considering extending the plastic bag ban to restaurants and third-party delivery services

There have been significant developments over the past year that pertain to these next steps and the impacts of plastic bags in curbside recycling, including:

- International treaty restrictions on the transboundary movement of mixed and low-grade waste plastics.
- A number of bills related to plastic bag issues were introduced or passed by the 2019 State Legislature.
- Regional recognition that plastic bags are harming the curbside recycling system, are incompatible with commingled recycling, and those that are sorted from other recyclables are exported to SE Asia, where environmental and social harm may result.

- Plastic bag and other contamination damage the marketability of paper commodities that make up the majority of our recycling.
- Responsible Recycling Task Force and Seattle Solid Waste Advisory Committee recommendations that plastic bags be removed from curbside recycling acceptance lists.
- Plastic bags are being removed from lists of materials collected curbside in Seattle and in the limited number of other area programs that have previously allowed plastic bags in curbside recycling mix.
- Formation of an industry led task force to improve retail drop-off options for plastic film and bags in the Greater Seattle Area.

**Figure 3: Recycling facility workers cut plastic bags and film out of sorting screens**



Detailed background information on this issue is included in the 2018 Report (included as Attachment 1). The key points from the 2018 Report included:

- Plastic bags cannot be effectively sorted at Material Recovery Facilities (MRFs) and are creating significant operational issues and cross contamination of paper and other commodities, resulting in increased labor and processing costs and safety hazards.
- Those bags that are sorted from other materials are dirty, gritty, do not meet domestic market standards, must be exported, and have limited (now no) market value.
- China, and now additional countries, have banned the import of plastic bag waste.
- Southeast Asian countries that take plastic bags have significant environmental justice concerns around the processing of waste plastics.
- Exported plastic waste is contributing to global marine plastic pollution if improperly handled by importing countries.

***BREAKING NEWS: International treaty restrictions on the transboundary movement of mixed and low-grade waste plastics***

*The Basel Convention is a global waste treaty that limits global trade in hazardous wastes, especially between developed and developing countries. It has been ratified by 187 countries, and the US is a signatory, but has not ratified the treaty. On May 10, 2019, the 187 countries that have ratified the Basel Convention approved applying the treaty to mixed plastic wastes due to the significant social and environmental impacts of global “trade” in these plastics. How this will impact the export of dirty MRF plastic bags and film is unclear at this time, but this action serves as an indicator of the level of concern and the need for responsible recycling.*

**2019 STATE LEGISLATURE RELATED TO PLASTIC BAGS AND ISSUES IDENTIFIED**

As noted above in other sections of this memo, concern over the impacts of plastic bags and other plastics has increased significantly and was reflected in a range of bills introduced in the 2019 state legislation session with various approaches, including banning plastic bags from curbside recycling collection, establishing product stewardship systems, requiring recycled content, focusing on market development, and reducing contamination in recycling programs. Following is a summary of these bills and some of the issues that were identified during the legislative process.

- SB 5323/HB 1205, an act relating to reducing pollution from plastic bags by establishing minimum state standards for the use of bags at retail establishments, did not pass and will be reintroduced in the 2020. Many elements of Seattle’s bag ordinance were included, expanded upon, and in many cases improved. There are also several problematic aspects of the legislation, which will be addressed below. Some key aspects of this legislation were that it would have:
  - Prohibited the use of single-use plastic or compostable plastic carry-out bags
  - Allowed heavier mil plastic “reusable” bags
  - Included food take-out bags as carry-out bags
  - Required a fee be charged and retained by the retailer for paper and reusable plastic bags (\$0.08 or \$0.10 depending on bill version)
  - Required other compostable bags to be tinted green or brown and prohibited polyethylene bags from being tinted green or brown
  - Preempted existing and future legislation related to plastic carry-out bags

Some of the issues that arose during the legislative process included:

- **Preemption** of existing and future local legislation pertaining to plastic carry-out bags, combined with allowance of 2.25 mil plastic “reusable” carry-out bags, which would have prevented Seattle from considering evolving best practices regarding use of thicker reusable bags or disallowing plastic bags of any kind.

- **Banning the use of compostable bags for carry-out**, including from restaurants, which when combined with preemption would result in Seattle never being able to allow or promote compostable take-out food bags that would then be used to collect food scraps to be placed into compost containers. SPU knows of two companies producing compostable plastic bags for take-out food that encourage food scrap composting, and staff have conferred with them on the messaging on their bags. ReNew Bag has produced a Seattle themed bag and Ecosafe Zero Waste has produced a more generic bag (see Figure 4). As efforts increase to further divert GHG producing food waste from landfills

Figure 4: Examples of Compostable Take-out Bags



and to composting, these bags could be a useful tool, if offered as well as paper bags and encouragement to use reusable bags for take-out food. Compostable bags are relatively new to the market, and some advocates for the state legislation were concerned that they will have the same impacts as polyethylene bags if they escape into the marine environment. Recent research and research underway suggest that this is not true, that compostable bags if they escape into the marine environment biodegrade within months, compared to polyethylene bags that persist for years. However, these bags are designed to be composted in industrial compost facilities and producers of the bags do not want them to be considered to be marine biodegradable as that would be just another form of littering and mismanagement, though with far less serious consequences. To further address concerns, current research, and possibilities, SPU will host a meeting between producers of compostable bags and those skeptical of their merits in Autumn 2019 and seek to find common ground on this issue before the next legislative session.

As with all of the issues identified with proposed legislation, SPU will work with our policy staff and the Office of Intergovernmental Relations to determine how to address these issues in the 2020 Legislative Session.

- HB 1204, concerning the responsible management of plastic did not pass. It would have required the producers of plastic packaging to:
  - Establish and finance a stewardship program for managing all plastic packaging, including bags, films, and flexible packaging, through reduction, recycling, chemical recycling, or disposal methods.
  - Include a minimum of 25% post-consumer recycled content in plastic bags and film shipping materials.
  - Fund clean-up of plastic packaging, including film and bags, from litter, marine debris, and compost facilities.
- E2SSB 5397, concerning the responsible management of plastic passed. Originally a product stewardship bill and companion to HB 1204, it became a study bill, requiring Ecology to develop a report addressing the current management and impacts of plastic packaging and a wide range of subjects necessary to determining how to manage plastic packaging in the future, especially through product stewardship or industry-led initiatives.
- HB 1543, concerning sustainable recycling passed. This legislation will:
  - Establish a recycling development center to assist in developing markets for recycled materials, with an initial focus on plastics and mixed waste paper.
  - Require the state to create and implement a statewide recycling contamination reduction and outreach plan.
  - Require local solid waste comprehensive plans to include a contamination reduction and outreach plan that identifies key contaminants and actions to address them.
- HB 1795/SB 5854, ensuring the long-term economic and environmental sustainability of the state's recycling system within the existing regulatory structure, did not pass. If passed, it would have removed local authority for what materials can be collected curbside and would have specifically prohibited the collection of plastic bags, as well as certain other materials.

#### **REGIONAL ACTIVITY AND RECOMMENDATIONS – REMOVAL OF PLASTIC BAGS FROM CURBSIDE RECYCLING**

The Responsible Recycling Task Force (RRTF) completed work commenced in 2018 to conduct a deep dive into the challenges presented by the China bans on mixed waste paper and mixed plastic materials. A Final Report was produced, with recommendations, and published in January of 2019. The RRTF was formed by King County Solid Waste at the request of the King County Solid Waste Advisory Committee and the Metropolitan Solid Waste Management Advisory Committee with SPU assistance and participation to respond to changes in international recycling markets and develop a coordinated approach to improving recycling in the region. The RRTF was made up of representatives from King County, City of Seattle, cities in King County, solid waste haulers, and stakeholders. The RRTF report and recommendations are attached as Appendix E.

A number of recommendations pertain specifically to plastic bags, including:

- Action Item 2B. Advocate for the expansion of the Wrap Recycling Action Program (WRAP) to establish an effective statewide program to capture plastic bags/film.

- Action Item 5B. Remove plastic bags/film and shredded paper from the materials that are accepted in recycling programs in King County and City of Seattle.
- Action Item 5C. Support “Reusable Bag” legislation to reduce the number of plastic bags entering the garbage and recycling system.

The Seattle Solid Waste Advisory Committee (SWAC) reviewed the RRTF recommendations and at its March 6, 2019, meeting, and unanimously supported the recommendations, including removing plastic bags from the Seattle curbside collection program. SWAC had previously supported taking plastic bags out of curbside recycling collection. SWAC letter supporting the removal of plastic bags from the curbside recycling collection is included as Appendix F, stating that they unanimously agreed that removing plastic bags from curbside recycling would be a good policy for SPU to adopt and they support retailer drop-off sites as an alternative so long as the bags can be responsibly recycled domestically. A response was sent to SWAC on March 29 (attached as Appendix G), concurring with their recommendation and with SPU’s intent to have plastic bags removed from curbside recycling collection in Q1 2020.

**Removal of Plastic Bags from Seattle’s Lists of Materials Collected in Curbside Recycling**

While adding bagged plastic bags to curbside recycling in 2009 was with good intent, SPU now knows based on shared experience and research that collecting bags in commingled recycling is not only ineffective, it creates numerous serious problems and falls outside the boundaries of what would be considered responsible recycling. As a result and driven by recent recommendations discussed earlier, SPU is phasing in the removal of plastic bags from the curbside recycling acceptance lists, with the process planned to be complete by Q1 2020. At that time, customers will be instructed to utilize retail drop-off locations or to put plastic bags and film in the garbage.

The reason for the phased approach is that SPU’s recycling outreach and education materials have a staggered schedule and it will take a year to change and distribute the instructions for all customer sector. For instance, the annual calendar and instructions to single-family residents in March 2019 removed bagged plastic bags from the recycling panel. The mailing to multifamily residents is not planned until November 2019 and will do the same. This also provides additional time to verify the existing retail bag and film drop-off collection locations and determine if they can be improved and expanded through working with key industry associations.

A limited number of other jurisdictions currently allow plastic bags in curbside and we are working through the Communications Consortium to coordinate messaging on contamination of recyclables and removal of plastic bags from curbside recycling acceptance lists. The Department of Ecology has also been communicating that plastic bags are a contaminant in curbside recycling and will include that messaging in state-wide anti-contamination efforts.

**Industry-Led Task Force Formation to Improve Retail Drop-off Options for Plastic Bags and Film**

SPU hopes to be able to redirect customers to return their plastic bags and film to retail drop-off locations that are conveniently located, which will ensure better handling of the collected material and use of domestic markets. However, this option faces challenges as well, including market challenges. To address these challenges and seize on opportunities through collaboration, an industry-led task force has been formed to discuss a potential Greater Seattle Area Bag and Film Project, which would target increasing drop-off opportunities and awareness regarding locations.

**Figure 5: Example of Local Retailer Plastic Bag Drop-off Location**



Participants include representatives of:

- American Chemistry Council
- American Chemistry Council's Wrap Recycling Action Program (WRAP)
- Association of Plastic Recyclers
- The Recycling Partnership
- Sustainable Packaging Coalition
- Seattle Public Utilities
- King County Solid Waste Division

While it is premature to report what will come of this effort, the intent is for a coalition of key industry associations to work together and with local businesses and end markets to develop an effective "system" for collecting plastic bags and film at retail, rather than a simple listing of stores that collect bags. The work is currently conceived to be done in phases over several years, with a draft vision of: "A robust collection system for plastic bags, film, and flexible packaging in Seattle and King County supported by domestic end markets. Seattle and King County to serve as a model for comprehensive whole life-cycle management of these materials, with future expansion to additional plastics."

Phase 1 at a minimum will focus on verifying and improving existing retail drop-off options for plastic bags and films and expanding to new drop-off sites if possible by Q1 2020. Currently there are sixteen known and listed retail drop-off sites in Seattle, though there are likely a few others. WRAP provides a search-by-zip-code function on its website for locating nearby drop-off locations. As an initial Phase 1 action, SPU, King County, and WRAP are collaborating to verify stores with existing drop-off and identify stores that are likely next adopters of "front-of-house" plastic bag and film collection from customers, due to consolidation and recycling of film "back-of-house" and due to participation of other stores within its own chain. For instance, not all Safeway or QFC stores currently provide plastic bag and film recycling, though some do.

This work began in May 2018 with a report produced for SPU by Cascadia Consulting Group, which was then shared with WRAP so it could update its store listings for Seattle. King County began verification of King County retail drop-off locations in the last several months and the lists are being cross-checked and verified with WRAP as a first step to improving options.

There is high potential for better and more responsible recycling of not only plastic bags and films, but in the future, other plastics, if industry is able to move forward with a substantial project in the Greater Seattle Area. Results of this effort will be reported in 2020.

### **Opportunities in 2019**

SPU will continue to work as described above to improve the implementation of our bag ordinance and the proper management of those plastic bags that are still in use.

There are a number of opportunities that could be considered in 2019 based on lessons learned by staff from SPU work, other jurisdictions that have more recently adopted bag-related legislation, and discussions resulting from introduction of state legislation. Those opportunities include:

- *Extending requirements, including pass-through charges, to include bags used for take-out food and by meal delivery services.*
- *Allowing compostable bags for take-out food if they include messaging about using the bag for food scraps to go into the compost container.*
- *Increasing the pass-through fee to \$0.10.*
- *If "reusable" plastic bags continue to be allowed, increasing the mil thickness of these bags to 4 mil, and/or more significantly increase the passthrough fee for these bags to encourage their actual reuse and encourage customers to use more durable reusable bags.*

## Appendix A1: Neighboring Cities with Bag Bans

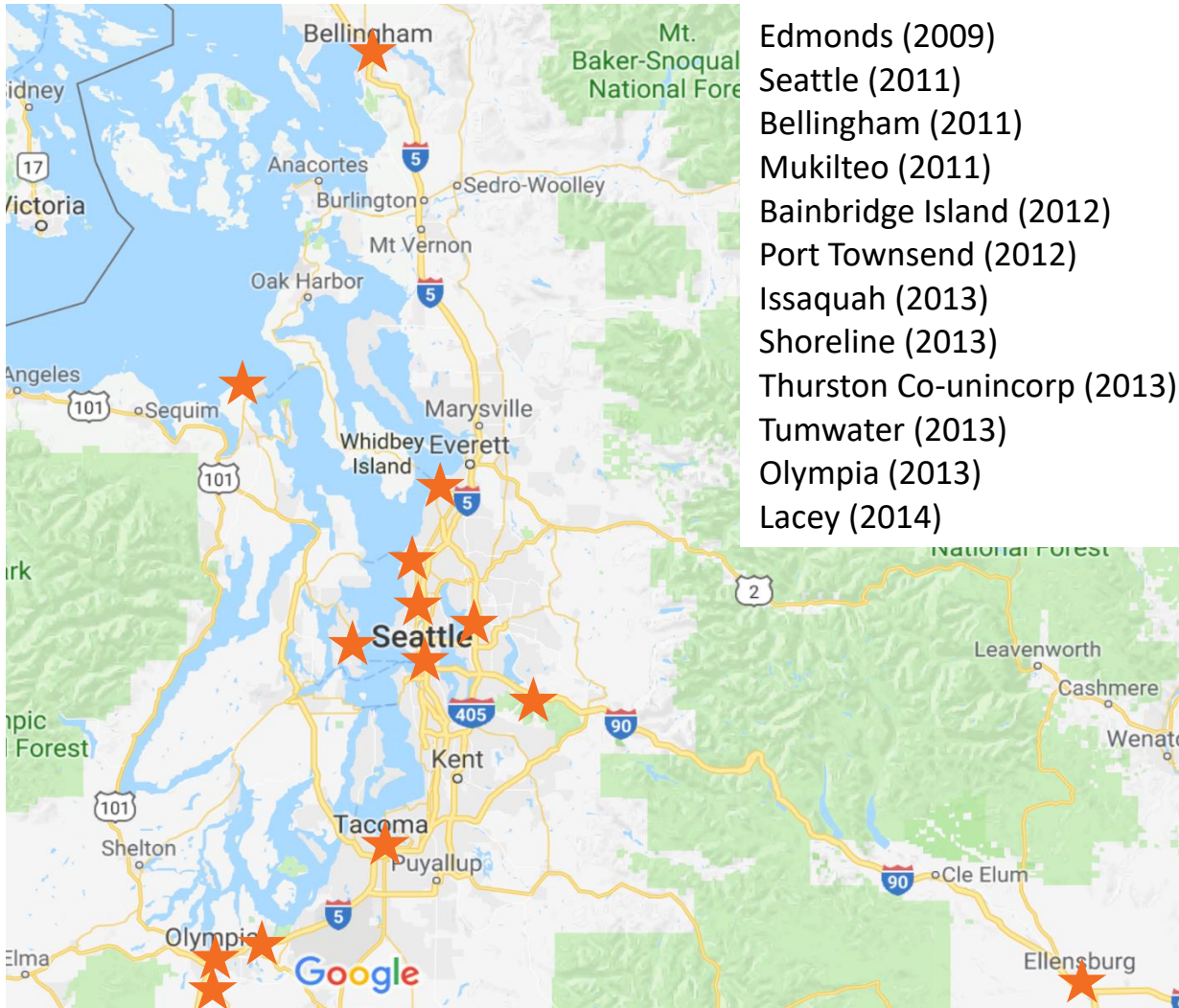


*Image Credit: Nora Haider, Evans School Graduate Consultant*

## Appendix A2: Bag Bans Enacted in Washington State

from Zero Waste Washington presented at Washington State Recycling Association Conference, April 30, 2019, titled "Policies to Address the Recycling Crisis, Waste Reduction, and Other Issues"

# 28 WA Reusable Bag Ordinances



- Edmonds (2009)
- Seattle (2011)
- Bellingham (2011)
- Mukilteo (2011)
- Bainbridge Island (2012)
- Port Townsend (2012)
- Issaquah (2013)
- Shoreline (2013)
- Thurston Co-unincorp (2013)
- Tumwater (2013)
- Olympia (2013)
- Lacey (2014)
- Lake Forest Park (2018)
- Mercer Island (2014)
- Kirkland (2015)
- Ellensburg (2016)
- San Juan Co-unincorp (2016)
- Tacoma (2016)
- Friday Harbor (2017)
- Quil Ceda Village (2017)
- Port Angeles (2018)
- La Conner (2018)
- Kenmore (2018)
- North Bend (2018)
- Everett (2018)
- Gig Harbor (2018)
- Burien (2019)
- Snohomish (2019)





## Appendix B: 2018 SPU Bag Ban Outreach Summary

---

## OVERVIEW:

- SPU Green Business Team visited 227 businesses in 2018.
- 85% of businesses visited were fully compliant with the bag ban.
- Primary barriers to compliance include lack of awareness, language barriers, and cost.
- 40% of ethnic grocery/produce stores visited were noncompliant.

## Introduction

This report summarizes the results of the Seattle Public Utilities (SPU) Green Business Team's 2018 bag ban outreach efforts. Primary goals of 2018's bag ban outreach included:

- Assessing the state of compliance with Seattle's bag ban ordinance across key target sectors.
- Understanding the barriers and incentives to compliance.
- Identifying gaps in compliance.

To accomplish these objectives, the Green Business Team surveyed 227 Seattle businesses. The remaining sections of this report present our methodology, findings and analysis, and recommendations.

## Research Methodology

As noted above, outreach specialists conducted in-person surveys of 227 Seattle businesses to identify bag ban compliance rates. Refer to Table 1 for an overview of the businesses visited by sector and council district. Refer to Appendix A for a map of the businesses visited. Note that this report does not include findings on convenience store outreach as this work was completed by University of Washington graduate students who captured their findings in the report, "[Reducing Plastic Pollution through Progressive Policies.](#)"

To produce the list of businesses to visit, a manual population listing was created through a combination of methods:

- 1) We obtained a listing of all businesses from our SPU Green Business Salesforce database that contains most City of Seattle businesses. Each business is designated with a NAICS code or a manually selected sector from an outreach specialist. We ran a Salesforce inquiry that contained all relevant grocery and retail businesses sectors and NAICS codes to develop our population listing. Below is the listing of NAICS codes for retail and grocery sectors that were used to develop the population listing
  - a. 452319 (All Other General Merchandise Stores), 446199 (All Other Health and Personal Care Stores), 442299 (All Other Home Furnishings Stores), 453920 (Art Dealers), 451211 (Book Stores), 448130 (Children's and Infants' Clothing Stores), 448150 (Clothing Accessories Stores), 445292 (Confectionery and Nut Stores), 446120

(Cosmetics, Beauty Supplies, and Perfume Stores), 452210 (Department Stores), 454110 (Electronic Shopping and Mail-Order Houses), 443142 (Electronics Stores), 448140 (Family Clothing Stores), 442210 (Floor Covering Stores), 453110 (Florists), 446191 (Food (Health) Supplement Stores), 442110 (Furniture Stores), 453220 (Gift, Novelty, and Souvenir Stores), 444130 (Hardware Stores), 451120 (Hobby, Toy, and Game Stores), 444110 (Home Centers), 443141 (Household Appliance Stores), 448310 (Jewelry Stores), 448320 (Luggage and Leather Goods Stores), 453930 (Manufactured (Mobile) Home Dealers), 448110 (Men's Clothing Stores), 451140 (Musical Instrument and Supplies Stores), 444220 (Nursery, Garden Center, and Farm Supply Stores), 453210 (Office Supplies and Stationery Stores), 446130 (Optical Goods Stores), 444190 (Other Building Material Dealers), 448190 (Other Clothing Stores), 454390 (Other Direct Selling Establishments), 444210 (Outdoor Power Equipment Stores), 444120 (Paint and Wallpaper Stores), 453910 (Pet and Pet Supplies Stores), 451130 (Sewing, Needlework, and Piece Goods Stores), 448210 (Shoe Stores), 451110 (Sporting Goods Stores), 453310 (Used Merchandise Stores), 442291 (Window Treatment Stores), 448120 (Women's Clothing Stores), 445110 (Supermarkets and Other Grocery (except Convenience) Stores), 445210 (Meat Markets), 445220 (Fish and Seafood Markets), 445230 (Fruit and Vegetable Markets), 445299 (All Other Specialty Food Stores).

- 2) We further researched and validated the combined listing created by checking the business names and addresses against business listings on Google and Yelp to preliminarily determine whether the business met the criteria of a large grocery, medium grocery, ethnic grocery and produce store, large retail, and small retail per our definitions below.

We used the refined business listing above as our survey population to randomly select a minimum of 35 businesses per the 5 sectors named above, distributed throughout all 7 council districts.

To further to understand the criteria that defined the visited sectors, definitions include;

- *Large grocery*, as a self-service store offering a wide variety of food and household merchandise, organized into departments. It is larger in size and has a wider selection than a traditional grocery store. e.g. Safeway, QFC, Fred Meyer.
- *Medium grocery*, as a store established primarily for the retailing of food. e.g. Montlake Boulevard Market, Red Apple Market, Trinity Market and Deli.
- *Ethnic grocery and produce store*, stocks fresh foods and regional products from several or one culture, it usually has a specific culture as a targeted market. e.g. Mendoza's Mexican Mercado, Goodies Mediterranean Market, Lam's Seafood Market.
- *Large retail*, specializes in satisfying a specific range of the consumer's personal and residential durable goods product needs; and at the same time offers the consumer a choice on multiple merchandise lines, at variable price points. e.g. Best Buy, Macy's, Home Depot.
- *Small retail*, as a store designed to blend in with the surrounding neighborhood and specializing in local tastes and needs. e.g. Card Kingdom, Sonic Boom Records, Blue Sky Bridal.

It is also worth noting that the variation within visit numbers was due to the availability of businesses per sector per council district, and the higher number of large groceries visited was due to the plastic bag collection research effort in May 2018.

**Table 1: Number of businesses visited by council district and target sector.**

Council District	Small Retail	Large Retail	Ethnic Grocery	Medium Grocery	Large Grocery	Totals
1	5	6	5	2	9	27
2	5	5	12	9	12	43
3	6	5	7	7	12	37
4	5	5	4	5	9	28
5	5	6	7	7	6	31
6	8	4	5	7	8	32
7	6	5	5	7	6	29
<b>Totals</b>	<b>40</b>	<b>36</b>	<b>45</b>	<b>44</b>	<b>62</b>	<b>227</b>

The SPU Green Business Team collaborated closely with SPU to build a survey that facilitated in-person observation and inquiry of businesses. Before beginning the survey with business owners, decision-makers, or tenured employees, outreach specialists assessed the business' level of compliance and documented findings in SPU's standard inspection form (provided in [Appendix B: SPU's standard inspection report form](#) ). After completing this initial inspection, outreach specialists asked staff the following survey questions to better understand barriers to entry, incentives to change, bag supplier of choice, and any other comments or concerns (refer to [Appendix C: Bag ban outreach survey form](#) for survey form):

<b>For all businesses:</b>	<ul style="list-style-type: none"> <li>• Are you aware of Seattle's policy on providing plastic carryout bags?</li> <li>• What are your thoughts on the bag ban?</li> <li>• How did you hear about the bag ban?</li> <li>• How do you prefer to get that information from the City of Seattle?</li> </ul>
<b>For compliant businesses:</b>	<ul style="list-style-type: none"> <li>• How has your experience been switching to paper bags?</li> <li>• Did customers have any difficulty transitioning to using paper bags?</li> <li>• Bag distributor/brand?</li> </ul>
<b>For non-compliant businesses:</b>	<ul style="list-style-type: none"> <li>• What are the barriers to compliance this business faces?</li> <li>• What are the next steps for compliance?</li> </ul>

Outreach specialists provided resources such as supplier contacts, in-language flyers ([Appendix D: Bag ban requirements flyer](#)), and signage to inform staff and customers about bag options and requirements. Outreach staff provided support in English, Spanish, Chinese, Korean, and Vietnamese. Due to time and budget constraints, as well as some stores going out of business, outreach specialists revisited 18 of the 34 non-compliant businesses to offer technical assistance and support. The Green Business Team recorded a total of 246 site visits, along with findings in the Salesforce database. The team exported this data out of Salesforce for further analysis and identification of common themes.

## Findings & Analysis

The Green Business Team reviewed the results of the 2018 bag ban outreach visits to compare data across sectors and Council Districts to inform focus areas for future outreach. Figure 1 summarizes bag ban compliance rates by sector and bag type. Figure 2 summarizes bag ban compliance rates by

Council District and bag type. Of the total 227 businesses visited, 85% were compliant with the plastic bag ban ordinance.

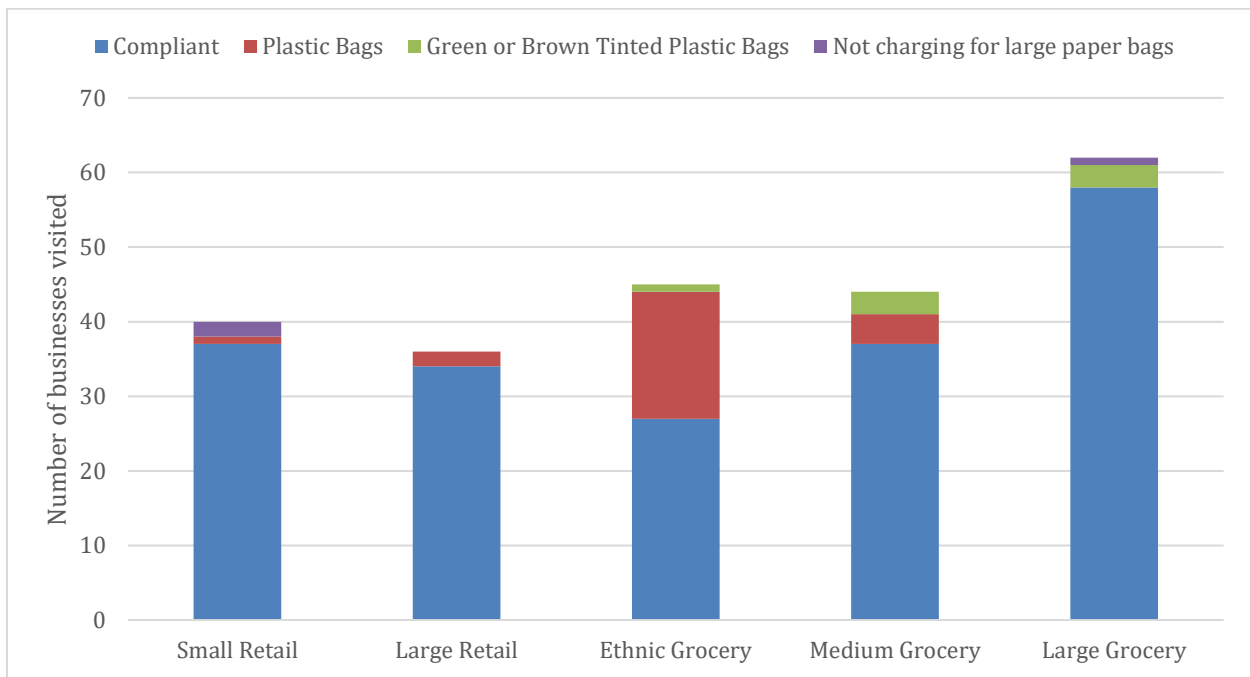
Observed compliance rates by sector were (n=227):

- Small retail 93%
- Large retail 94%
- Ethnic grocery 60%
- Medium grocery 84%
- Large grocery 94%

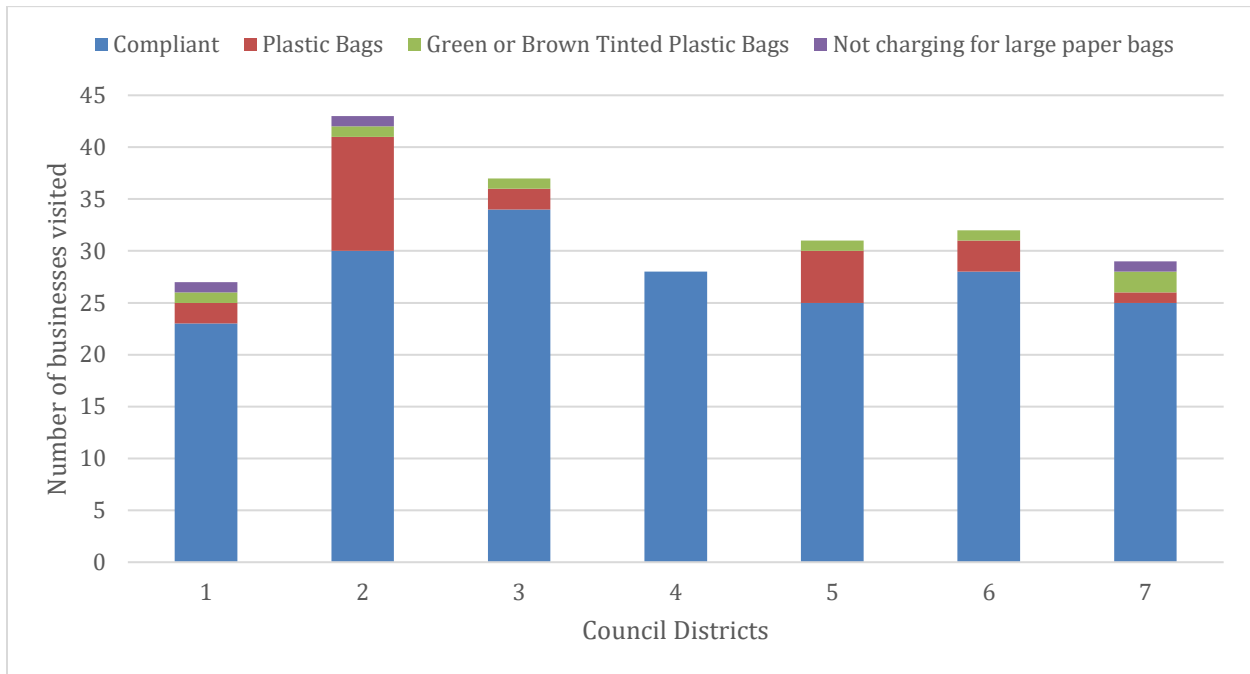
Observed compliance rates by Council District were (n=227):

- 1 85%
- 2 70%
- 3 92%
- 4 100%
- 5 81%
- 6 88%
- 7 86%

**Figure 1: Compliance by sector and bag type.**



**Figure 2: Compliance by Council District and bag type.**



Among non-compliant businesses (n=34), interviewees reported their top three barriers to compliance were (note that interviewees could provide more than one response):

- Unaware of ordinance or ordinance specifics (47%).
- Language barriers (29%).
- Added cost to operations (24%).

Among compliant businesses (n=193), interviewees reported their top three incentives to participate were (note that interviewees could provide more than one response):

- The ordinance is good for the environment (24%).
- Customers are environmentally conscious and self-motivated to reduce their waste (11%).
- Change is led by the owner or corporate office of the business (5%).

Even after a business has successfully transitioned to compliance (n=193), some continue to face challenges and complaints, such as:

- Complaints that paper bags are not durable enough for Seattle’s weather (12%).
- Businesses should not have to charge for paper bags (12%).
- General customer preference for plastic bags (6%).
- Added cost to operations hurt businesses (5%).

Thirty-three interviewees provided their supplier info (interviewees could choose more than one). The top three suppliers mentioned were Costco (45%), Cash & Carry (27%), and U-Line (9%).

Ninety-six interviewees provided information on preferred information channels (interviewees could choose more than one). The top responses included information from corporate office (36%), direct mail (35%), and in-person visits (16%).

Notable quotes from interviewees in the field include:

*"Changing to compliant bags has a lot of roadblocks: cost of bags for the business is number one, customer complaints about material durability for paper bags or cost for thicker bags is second. We just found out about the ban by having you come in with a flyer."*

*"Seattle is off the rails with this ordinance. This will do nothing to save the environment. Don't like being dictated to do something."*

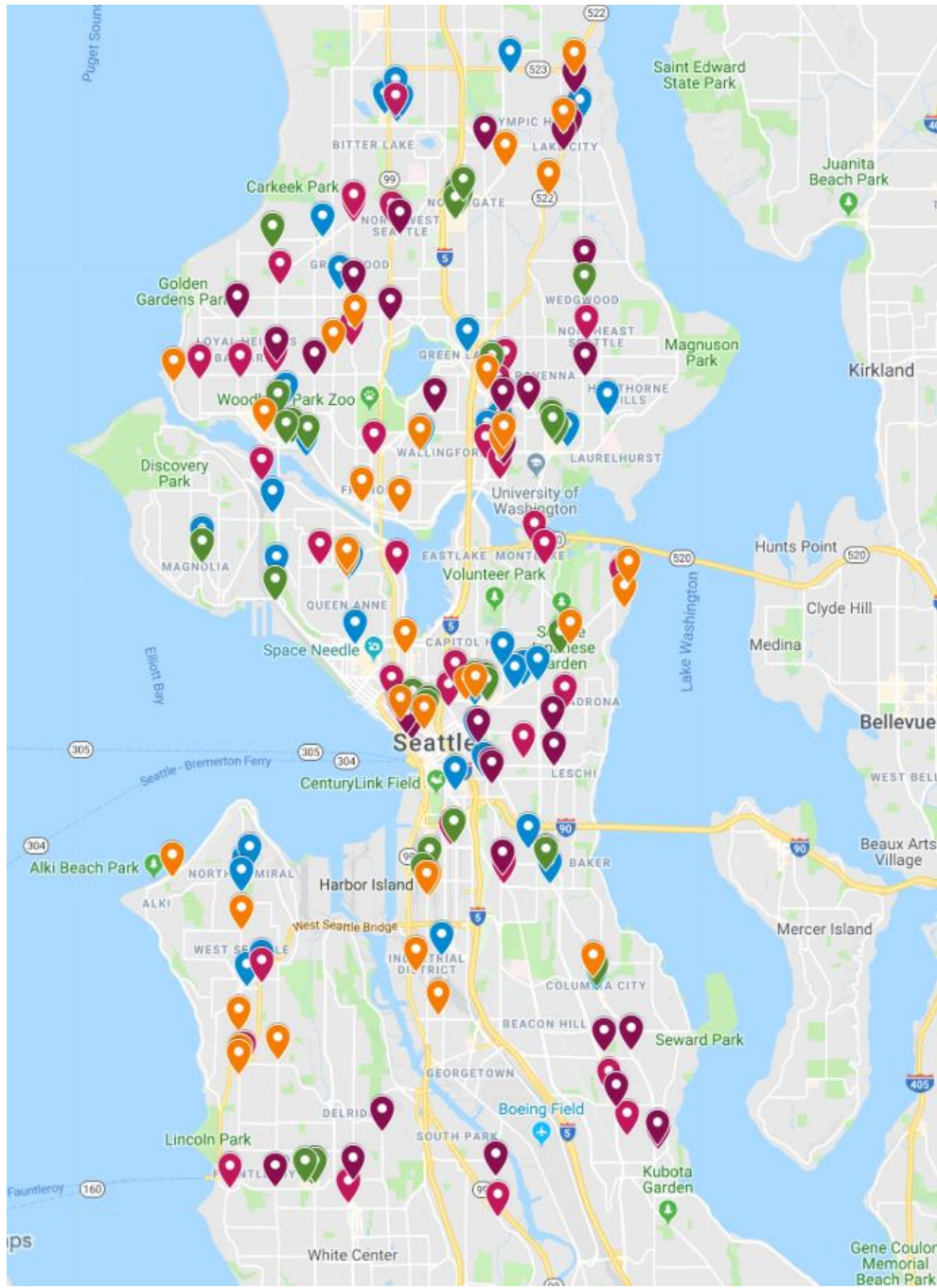
*"It increases theft, customers don't have to take a paper bag if they don't want to, so a lot of times people will grab clothes and walk out of the store saying that they didn't want a paper bag. We don't want to accuse customers or create that environment, so we have to let it go. It is common for this to happen."*






### Recommendations

Based on the Green Business Team's 2018 bag ban outreach efforts, we recommend SPU consider the following next steps to improve compliance rates:

- Additional in-language and culturally appropriate business outreach support, including transcreated bag ban outreach materials.
- Persistent education campaigns before, during, and after an ordinance has been enacted.
- Additional technical assistance for sectors with high non-compliance rates (i.e. ethnic groceries).

## Appendix A: Map of businesses visited during 2018 bag ban outreach



-  LARGE GROCERY (42)
-  Ethnic Stores (40)
-  Medium Grocery (40)
-  Large Retail (35)
-  Small Retail (35)



## Appendix B: SPU's standard inspection report form



**INSPECTION REPORT**  
Recycling/Composting/Food Packaging/Bag Ban

BUSINESS LICENSE #:		PR #:	
BUSINESS NAME:			
BUSINESS ADDRESS:			ZIP:
MAILING ADDRESS:		CITY/STATE:	ZIP:
CONTACT NAME:	PHONE #:	EMAIL:	

**All Businesses**

**CURRENT COLLECTION SERVICE LEVEL**

	QTY	Size	Pickup Frequency	Service Provider	Recommended Service Level/Comments
Garbage					
Recycle					
Compost					

<b>COLLECTION SERVICE</b>	<input type="checkbox"/> IN COMPLIANCE <input type="checkbox"/> NOT IN COMPLIANCE <input type="checkbox"/> NOT APPLICABLE
COMMENTS:	<input type="checkbox"/> Establish recycling collection service (Dumpster/Cart) <input type="checkbox"/> Establish compostables collection service (Dumpster/Cart)

<b>INDOOR COLLECTION BINS</b>	<input type="checkbox"/> IN COMPLIANCE <input type="checkbox"/> NOT IN COMPLIANCE <input type="checkbox"/> NOT APPLICABLE
COMMENTS:	<input type="checkbox"/> Provide recycling collection container(s) for customers/staff to use <input type="checkbox"/> Provide compostable collection container(s) for customers/staff to use

**Food Service Only**

<b>PACKAGING REQUIREMENTS</b>	<input type="checkbox"/> IN COMPLIANCE <input type="checkbox"/> NOT IN COMPLIANCE <input type="checkbox"/> NOT APPLICABLE
COMMENTS:	<input type="checkbox"/> Stop using EPS foam packaging (EPS: Expanded Polystyrene, "Styrofoam") <input type="checkbox"/> Use compostable packaging for dine-in customer orders <input type="checkbox"/> Use compostable/recyclable packaging for take-out customer orders

<b>PLASTIC STRAW &amp; UTENSIL BAN</b>	<input type="checkbox"/> IN COMPLIANCE <input type="checkbox"/> NOT IN COMPLIANCE <input type="checkbox"/> NOT APPLICABLE
COMMENTS:	<input type="checkbox"/> Stop using plastic straws <input type="checkbox"/> Stop using plastic utensils (forks, spoons, knives, stir sticks, cocktail picks)
<a href="http://cedar-grove.com/compostable/accepted-items">http://cedar-grove.com/compostable/accepted-items</a>	<input type="checkbox"/> Only approved compostable straws and utensils are compliant

**Retail/Grocery Only**

<b>PLASTIC CARRYOUT BAG BAN</b>	<input type="checkbox"/> IN COMPLIANCE <input type="checkbox"/> NOT IN COMPLIANCE <input type="checkbox"/> NOT APPLICABLE
COMMENTS:	<input type="checkbox"/> Stop using thin plastic carryout bags (min. 2.25 mil thickness) <input type="checkbox"/> Stop using green/brown tinted plastic bags <input type="checkbox"/> Stop using bags displaying misleading information (biodegradable, etc.) <input type="checkbox"/> Stop providing large paper bags for free to customers

**Special Events Only**

<b>LITTER CONTROL</b>	<input type="checkbox"/> IN COMPLIANCE <input type="checkbox"/> NOT IN COMPLIANCE <input type="checkbox"/> NOT APPLICABLE
COMMENTS:	<input type="checkbox"/> Manage event area litter: service litter cans and clean up area

**PLEASE CONTACT THE SPU ENVIROSTARS PROGRAM FOR MORE INFORMATION**

SPU EnviroStars Program    [www.seattle.gov/util/greenyourbusiness/EnviroStars](http://www.seattle.gov/util/greenyourbusiness/EnviroStars)    (206) 343-8505    [envirostars@seattle.gov](mailto:envirostars@seattle.gov)

**Inspector:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## Appendix C: Bag ban outreach survey form

INSPECTION REPORT FOLLOW UP QUESTIONS  
*Attach to copy of completed Inspection Report*

1. Were bag ban outreach materials left with the store: Y | N
2. Were straw/utensil outreach materials left with the store: Y | N
3. What other outreach materials were left with the store: \_\_\_\_\_
4. Were additional outreach materials requested by the store: Y | N  
If Y: \_\_\_\_\_; Preferred language(s) \_\_\_\_\_

**Business Follow Up Questions:**

## FOR ALL BUSINESSES:

1. Are you aware of Seattle's policy on providing plastic carryout bags? Y | N
  - a. What are your thoughts on the bag ban?
2. How did you hear about the bag ban? How do you prefer to get information from the City of Seattle?

## FOR COMPLIANT BUSINESSES:

1. How has your experience been switching to paper bags?
2. Did customers have any difficulty transitioning to using paper bags?
3. Bag distributor/brand?

## FOR NON-COMPLIANT BUSINESSES:

1. If NOT COMPLIANT with the Bag Ban or Straw & Utensil Ban, what are the **barriers listed by the business**?
2. What are the next steps for compliance?

Appendix D: Bag ban requirements flyer

## Bag Requirements

### What the City of Seattle Law Requires:

<p><b>Plastic Carryout Shopping Bags</b></p>	<p><b>Large Paper Shopping Bags</b></p> <p><small>(Minimum charge required.)</small></p>	<p><b>Smaller Paper Bags</b></p> <p><small>(Charge optional.)</small></p>	<p><b>Green and Brown Plastic Bags* (such as produce)</b></p> <p><small>*Requirement is effective July 1, 2017</small></p>	<p><b>Clear Plastic Produce/ Bulk Food Bags</b></p>
--	--	---	--	---

**Seattle Stores:**

- May not provide customers with single-use plastic or compostable carryout (shopping) bags, or bags labeled "biodegradable," "degradable," "decomposable" or similar.
- May not provide customers with plastic bags (such as produce bags) that are tinted green or brown. Stores can provide approved compostable bags, and they must be colored green or brown.
- May provide customers with any size recyclable paper or reusable carryout bags. Stores must charge a minimum paper bag fee of 5 cents for large 1/8 barrel paper bags (paper bags 882 cubic inches or larger).
  - › Paper bag charges must be shown on customer receipts. Sales tax applies. Stores keep the paper bag fee.
  - › The large paper bags for which customers are charged must contain at least 40 percent post-consumer recycled fiber, and the minimum recycled fiber content must be printed on the outside of the bag.
  - › Recycled fiber content and labeling is encouraged for all paper bag sizes.
  - › Stores may provide smaller paper bags free or charge customers for them.
- Plastic bags 2.25 mil or thicker are considered reusable bags. Stores may provide them free or charge the customer for them.

\*Requirement is effective July 1, 2017

**EXEMPTIONS & ADDITIONAL DETAILS**

**Seattle Public Utilities**

206-684-3000

For more information: [www.seattle.gov/plasticbagban](http://www.seattle.gov/plasticbagban)

## Exemptions & Information

**Exemptions from the Ban:**

- Customers using state or federal food assistance program vouchers or benefits cards are exempt from the 5-cent large paper bag fee.
- Plastic bags used in stores for bulk items or to protect vegetables, meat, frozen foods, flowers and similar items are exempt. Plastic bags cannot be green or brown tinted. Approved compostable bags are permitted for these purposes.
- Plastic or approved compostable bags used for take-out orders of prepared food from restaurants are allowed.
- Plastic dry-cleaner, newspaper and door-hanger bags are allowed but cannot be tinted green or brown.\*

Bags Still Allowed

Produce/Meat  
Bulk Foods  
Newspaper  
Dry Cleaning  
Door Hanger  
Take-out Food  
Paper Bags

Encouraged:

Choose Reusable Bags

- Single-use bags are wasteful. They also often end up blocking storm drains, littering our streets, polluting our waterways, contaminating compost, and creating more trash.

\*Requirement is effective July 1, 2017

For interpretation services please call 206-684-3000.  
 如需口譯服務請電 206-684-3000。  
 통역 서비스를 원하시면 206-684-3000 번으로 전화해 주십시오.  
 Wixii adeegyada turjubaanka fadlan wa 206-684-3000.  
 Para servicios de traducción, por favor llame al 206-684-3000.  
 Para sa serbisyo ng tagapagpaliwanag, tumawag sa 206-684-3000.  
 Muốn yêu cầu dịch vụ thông dịch xin gọi số 206-684-3000.

**Seattle Public Utilities**

206-684-3000

For more information: [www.seattle.gov/plasticbagban](http://www.seattle.gov/plasticbagban)

## Appendix C: Amharic Translation of Bag Regulation Outreach Material

---



# ኮሮጀዎችን የሚመለከቱ ድንጋጌዎች



## የሲያትል ከተማ ሕግ የሚያዘው፦

<p>የላስቲክ የተሰሩ ይዘ ለመሄጃ የሚያገለግሉ የገበያ ኮሮጀዎች</p> 	<p>ትላልቅ ከወረቀት የተሰሩ የገበያ ኮሮጀዎች</p>  <p>5¢ (አነስተኛ የክፍያ መጠን ይጠየቃል።)</p>	<p>አነስተኛ የወረቀት ኮሮጀዎች</p>  <p>ነጻ (ክፍያ በፍላጎት ይሆናል።)</p>	<p>አረንጓዴ የላስቲክ ኮሮጀዎች* (ለኦርጎኖች ለመላሰሉ)</p>  <p>*ድንጋጌው ተፈጻሚ የሚሆነው ከጁላይ 1, 2017 ጀምሮ</p>	<p>የኦርጎኖች/ ያልታሸገ ምግብ መያዣ ውሃ መልክ የላስቲክ ኮሮጀዎች</p>  <p>ተፈቅዷል</p>
--	---	--	---	--

## የሲያትል መደብሮች፦

- ለአንዴ-የሚያገለግሉ የላስቲክ ወይም ወደ ብስባሽ ሊቀየሩ የሚችሉ ይዘ መሄጃ (የገበያ) ኮሮጀዎችን፣ ወይም “ባዮ-ድግሪዳብል፣” “ድግሪዳብል፣” “ዲኮምፖዥብል” ወይም ተመሳሳይ ምልክት የተጻፈባቸውን ኮሮጀዎች ለደምበኞች ላይሰጡ ይችላሉ።
- አረንጓዴ ወይም ቡናማ ቀለም ያላቸው የላስቲክ ኮሮጀዎችን (እንደ የኦርጎኖች መያዣ ኮሮጀዎች የመሰሉትን) ለደምበኞች ላይሰጡ ይችላሉ። \* መደብሮች የተፈቀዱ ወደ ብስባሽ ሊቀየሩ የሚችሉ ኮሮጀዎችን ሊሰጡ ይችላሉ። እነሱም አረንጓዴ ወይም ቡናማ ቀለም ያላቸው መሆን አለባቸው \* ።
- የማንኛውንም መጠን ሪሳይክል የሚደረጉ የወረቀት ወይም በድጋሜ የሚያገለግሉ ይዘ መሄጃ ኮሮጀዎችን ለደምበኞቻቸው ሊሰጡ ይችላሉ። ትላልቅ የአንድ ባረል 1/8 ኛ መጠን ላላቸው የወረቀት ኮሮጀዎች (882 ኢንች ኪዩብ ወይም ከዚያ በላይ ለሆኑ የወረቀት ኮሮጀዎች ) መደብሮች 5 ሳንቲም አነስተኛ የወረቀት ኮሮጀዎች ክፍያ ማስከፈል አለባቸው።
  - › ለወረቀት ኮሮጀዎች የተከፈሉ ክፍያዎች በደምበኞች ደረሰኝ ላይ መጻፍ አለባቸው። የሽያጭ ግብር (ታክስ) ታሳቢ ይሆናል። መደብሮች የወረቀት ኮሮጀ ክፍያን ለራሳቸው ያስቀራሉ።
  - › ደንበኞች ክፍያ የሚከፍላቸው ትላልቅ የወረቀት ኮሮጀዎች፣ ቢያንስ 40 በመቶ ካገልግሎት-በኋላ ሪሳይክል የተደረገ ፋይበር ያሉባቸው መሆን አለባቸው። እንዲሁም አነስተኛው ሪሳይክል የተደረገው የፋይበር መጠን በኮሮጀው የውጭ ክፍል ላይ መታተም አለበት።
  - › በሁሉም የወረቀት ኮሮጀ መጠኖች ላይ ሪሳይክል የተደረገ የፋይበር ይዘት እና የጽሁፍ ምልክት (ሌብል) ማድረግ የሚበረታታ ይሆናል።
  - › መደብሮች አነስተኛ የወረቀት ኮሮጀዎችን ለደንበኞቻቸው በነጻ መስጠት ወይም ማስከፈል ይችላሉ።
- 2.25 mil ወይም ከዚያ ወፊ የሚሉ የላስቲክ ኮሮጀዎች ዳግመኛ ለአገልግሎት ሊውሉ እንደሚችሉ ይቆጠራሉ። መደብሮች በነጻ ሊሰጡ ወይም ደምበኞቻቸውን ሊያስከፍሉ ይችላሉ።

\*ድንጋጌው ተፈጻሚ የሚሆነው ከጁላይ 1, 2017 ጀምሮ

Seattle Public Utilities



# የማይመለከታቸው ነገሮች እና መረጃ

## መከላከል የማይመለከታቸው፦

- የስቴት ወይም የፌዴራል የምግብ እርዳታ ፕሮግራም ቫውቸሮችን ወይም የጥቅም ካርዶችን የሚጠቀሙ ደንበኞች ከዚህ የ 5-ሳንቲም የትላልቅ የወረቀት ኮሮጆ ክፍያ ነጻ ናቸው።
- መደብር ውስጥ ላልታሸጉ ምርቶች መያዣ ወይም ለአታክልት፣ ለስጋ፣ ለቀዘቀዙ ምግቦች፣ ለአበባዎችና ለሌሎች ተመሳሳይ ምርቶች መሸፈኛ የሚያገለግሉ የላስቲክ ኮሮጆዎች ይህ አይመለከታቸውም። ከላስቲክ የተሰሩ ኮሮጆዎች አረንጓዴ ወይም ቡናማ ቀለም ሊሆኑ አይችሉም።\* የተፈቀዱ ወደ ብስባሽ ሊቀየሩ የሚችሉ ኮሮጆዎች ለነዚህ ተግባሮች ይሆናሉ።
- በምግብ ቤቶች የተሰናዳ ምግብን ይዞ ለመሄጃ የሚያገለግሉ የላስቲክ ወይም የተፈቀዱ ወደ ብስባሽ ሊቀየሩ የሚችሉ ኮሮጆዎች ይሆናሉ።
- ከላስቲክ የተሰሩ የላውንድሪ ቤት፣ የጋዜጣና በር-ላይ-ማንጠልጠያ ኮሮጆዎች ይፈቀዳሉ፣ ግን አረንጓዴ ወይም ቡናማ ቀለም ሊሆኑ አይችሉም።\*

## አሁንም የሚፈቀዱ ኮሮጆዎች



የእርሻ ምርት/ሰጋ

ያልታሸጉ ምግቦች



ጋዜጣ

የላውንድሪ ቤት



በር ላይ ማንጠልጠያ

ተይዘ-የሚኬድ ምግብ (ቴክኦት)

የወረቀት ኮሮጆዎች

## የሚበረታቱ ተግባሮች፦

### ዳግመኛ ሊያገለግሉ የሚችሉ ኮሮጆዎችን ይምረጡ

- አንዴ-ብቻ የሚያገለግሉ ኮሮጆዎች አባካኝ ናቸው። ደግሞ አብዛኛውን ጊዜ፣ የጎርፍ መተላለፊያ ቱቦዎችን ይደፍናሉ፣ መንገዶቻችንን ያቆሽሻሉ፣ ውሃ መተላለፊያዎቻችንን ይበክላሉ፣ የብስባሽ አፈርን ይመርዛሉ፣ እንዲሁም ተጨማሪ ቆሻሻን ይፈጥራሉ።



\*ድንጋጌው ተፈጻሚ የሚሆነው ከጁላይ 1, 2017 ጀምሮ



የአስተርጓሚ አገልግሎት ለማግኘት በ 206-684-3000 ይደውሉ።  
 如需口譯服務請電 206-684-3000.  
 통역 서비스를 원하시면 206-684-3000 번으로 전화해 주십시오.  
 Wixii adeegyada turjubaanka fadlan wac 206-684-3000.  
 Para servicios de traducción, por favor llame al 206-684-3000.  
 Para sa serbisyo ng tagapagpaliwanag, tumawag sa 206-684-3000.  
 Muốn yêu cầu dịch vụ thông dịch xin gọi số 206-684-3000.

## Appendix D: Chinese Transcreated Ban Information

---

# 商家提供購物袋規範

## ☺ 允許使用的袋子：



### 購物用大型紙袋

- 商店可提供任何尺寸的可回收紙袋。
- 紙袋需至少含有百分之四十的回收再生纖維。
- 若提供容量為1/8桶 (1/8 barrel) 或更大的紙袋, 須向顧客收取5美分。
- 5美分費用須顯示在收據上。



### 小型紙袋

- 商店可免費提供小型紙袋或向顧客收費。
- 建議使用再生紙袋。



### 透明蔬果袋或散裝食品袋

- 允許提供2.25 密耳 (2.25 mil) 或更厚的可重複利用的塑料袋。
- 商店可免費提供此類塑料袋或向顧客收費。



### 可做堆肥的袋子

- 商店可向顧客提供可做堆肥的袋子

## ☹ 禁止使用的袋子：



### 塑料購物袋

- 禁止提供一次性塑料購物袋或僅標示“可生物分解” (biodegradable)、“可降解” (degradable)、“可分解” (decomposable) 等字詞的袋子。



### 綠色蔬果用塑料袋

- 禁止提供非堆肥用的綠色或棕色的塑料袋。





# 例外情況與其他資訊

## 禁令規範的例外：

- 無須向使用州或聯邦政府提供之食品援助計劃券或福利卡的顧客收取 5 美分的紙袋費用。
- 用於乾洗衣物、包裝報紙、門把掛袋，裝散裝食品或保護蔬菜、肉類、冷凍食品及花卉等的塑料袋不在禁令規範之中。唯不可使用綠色或棕色的非堆肥用塑料袋。
- 外賣或餐廳外帶食物可使用塑料袋或可堆肥袋。



請盡量提供顧客可重複使用的環保購物袋或紙箱！



\* 相關規定自 2017 年 7 月起生效



Seattle  
Public  
Utilities

## Appendix E: Responsible Recycling Task Force Final Report

---



# Responsible Recycling Task Force Recommendations to Achieve a Responsible Recycling System

January 10, 2019

Prepared by King County's Responsible Recycling Task Force with assistance from King County Solid Waste Division, Seattle Public Utilities, C+C, and Responsible Recycling Task Force members

## Responsible Recycling Task Force

Final Recommendations Transmittal Letter

January 10, 2019

Dear SWAC and MSWMAC Members:

The Responsible Recycling Task Force is pleased to submit the attached report: ***Recommendations to Achieve a Responsible Recycling System***. This report is the compilation of a 10-month planning process that included representatives from solid waste management companies, the King County Solid Waste Division, Seattle Public Utilities, the cities in King County, and other stakeholders.

Over the course of our meetings the Task Force learned from experts in the recycling industry about:

- The problems associated with exporting our recycling materials for sorting and processing.
- New, unique, and successful recycling programs in other states and countries.
- Cutting edge processing technologies such as chemical recycling.
- The importance of good packaging design and policies to stimulate demand for recyclable materials.

In addition, we explored alternative financing mechanisms to create a sustainable funding source so that recycling programs would not be dependent on the market value of the materials alone.

Prepared with this knowledge, the Task Force engaged in honest, open-minded, and constructive discussions that resulted in recommendations that will ensure the short- and long-term success of the recycling industry. The Task Force agreed unanimously that the region must create a Responsible Recycling system that takes into consideration the environmental and societal impacts of our choices for recycling the materials generated here in King County.

A Responsible Recycling system requires that we take responsibility for the materials we generate throughout their lifecycle and commit to change local and statewide policies in ways that create a framework within which Responsible Recycling can thrive. It requires that we create demand for recycled materials, make investments in local sorting and processing infrastructure, strive to harmonize recycling programs and messaging, and make a commitment to work with new partners, including brand owners, at all stages of the supply chain to help solve the problem.

We are proud of the effort that went into the development of and the resulting recommendations. We hope that you will agree with them and help us to create a Responsible Recycling system in King County and beyond.

Regards,

The Responsible Recycling Task Force

*(members listed in Appendix A)*

# Table of Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>5</b>
<b>PART I: THE RESPONSIBLE RECYCLING TASK FORCE .....</b>	<b>7</b>
Role of Task Force .....	8
Problem Statement.....	8
Task Force Goals .....	9
<b>PART 2: THE RESPONSIBLE RECYCLING SYSTEM .....</b>	<b>10</b>
<b>PART 3: RECOMMENDATIONS AND ACTION ITEMS .....</b>	<b>11</b>
2019 Work Program Action Items.....	15
Goal 1: Establish Responsible Recycling Policies.....	15
Goal 2: Develop Local Recycling Infrastructure .....	17
Goal 3: Harmonize Recycling Programs and Messaging .....	18
Goal 4: Increase Demand for Recyclable Materials .....	20
Goal 5: Create Clean and Marketable Feedstocks .....	20
Goal 6: Improve Upstream Design .....	23
2020 Work Program Action Items.....	23
Mechanisms for Implementation .....	24
Next Steps for Adoption and Implementation.....	24
<b>APPENDIX A: MEETING STRUCTURE AND MEMBERS .....</b>	<b>25</b>
<b>APPENDIX B: MEETING AGENDAS AND TOPICS .....</b>	<b>27</b>



# Responsible Recycling Task Force

## Recommendations to Achieve a Responsible Recycling System

January 10, 2019

### Executive Summary

People in our region value recycling because they understand that it is an investment in a sustainable future – but recycling as we know it is under duress.

Issues with contamination, vulnerability of markets for recycled materials, a lack of local infrastructure, and the historic assumption that recycling should pay for itself, have created an urgent dilemma that needs to be addressed. We believe the answer lies in taking a step back to look at the entire system, then making changes to create a Responsible Recycling system for the materials we generate.

Responsible Recycling is a philosophy that ensures we take responsibility for the waste and recyclables we generate so that they are sorted, processed, and if necessary, disposed in a responsible manner. It ensures that our recycled materials do not cause harm here or elsewhere, including other countries. It also motivates producers and consumers to reduce wasteful packaging and products and increase the use of recycled and recyclable materials. Responsible Recycling is not going to be easy. It is not going to be free. It will require significant changes in our recycling systems and infrastructure. However, it is the right thing to do to conserve valuable resources, minimize impacts from global warming, and secure a sustainable future.

Over 10 months of work, the Responsible Recycling Task Force tackled the question of how our region should move forward in solving immediate problems while also mapping a path for long-term solutions. The Task Force recommendations are as follows:

1. Establish Responsible Recycling Policies: System level changes are needed to solve this problem. Our region should support, create, and advocate for policies that establish a statewide system of responsible recycling. ***A comprehensive statewide stewardship policy approach was prioritized as the most important action for achieving responsible recycling success long-term.***
2. Develop Local Recycling Infrastructure: Domestic infrastructure is lacking and is a necessary part of the solution. ***Local recycling infrastructure is a win-win-win for the region by building recycling system resiliency, creating local jobs, and minimizing greenhouse gas emissions.***
3. Harmonize Recycling Programs and Messaging: Consumer confusion drives contamination. ***All regional curbside programs should use consistent messaging about what is accepted in the curbside recycling container.***

4. Increase Demand for Recycled Materials: The materials we collect for recycling must have end markets. ***Our region should create demand for recycled-content products through legislation, procurement ordinances, and working with local companies to buy recycled.***
5. Create Clean and Marketable Feedstocks: We cannot allow recycled materials generated in our region to contribute to environmental pollution or endanger human health and safety at home or elsewhere, including other countries. ***We need to develop policies that ensure materials are clean and suitable for reprocessing before being exported.***
6. Improve Upstream Design: Changes in package design are creating many of the challenges with contamination in our recycling system. ***Local government should partner locally and nationally to encourage design-for-recycling and use of recycled materials in products and packaging.***

**Action is needed to move forward.** The role of this report is to give decision-makers both guidance on the philosophy of Responsible Recycling as well as specific steps that can be taken to adapt our recycling system. We hope the recommendations are useful and ultimately embraced and implemented.



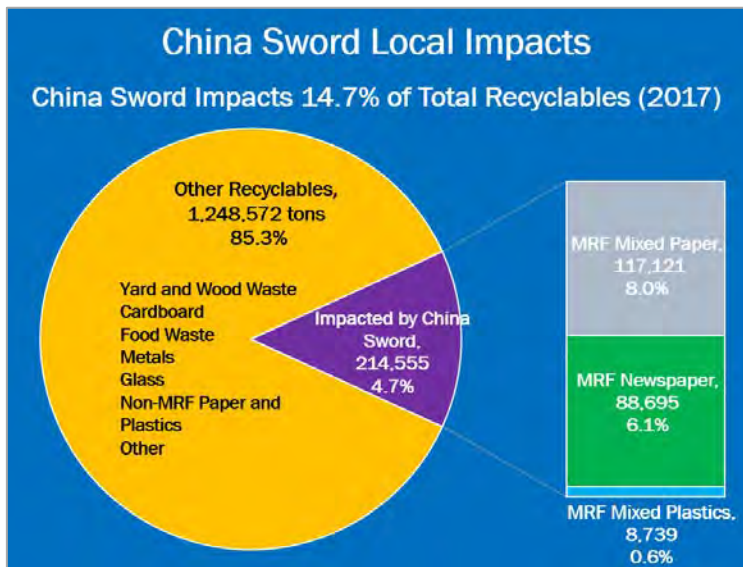
## PART I: THE RESPONSIBLE RECYCLING TASK FORCE

In January 2018, China implemented a policy called the “National Sword” that banned the importation of mixed paper (including newspaper), cardboard, and all scrap plastic. They also enacted a stringent 0.5% contaminant limit for other recyclables that essentially eliminated the primary market for these recyclable materials. In March of 2018, aspects of China’s National Sword policy were named Blue Sky 2018. Blue Sky refers to the actions taken by China’s General Administration of Customs from March through December of 2018 to prevent the illegal import of scrap materials banned by the National Sword policy including the crack down on falsified import documents.<sup>1</sup>

As a result of these policies, there is a global oversupply of these materials and commodity prices have fallen dramatically. Of the export markets that still exist, many have adopted similar contamination limits causing an increase in sorting and processing costs to meet these limits on contamination. In addition, there are very limited domestic markets for mixed paper and mixed plastics.

In response, King County’s [Solid Waste Advisory Committee \(SWAC\)](#) and [Metropolitan Solid Waste Management Advisory Committee \(MSWMAC\)](#) formed the Responsible Recycling Task Force (RRTF) in April of 2018 to address the changes caused by National Sword and to develop a coordinated approach to improving recycling in the region. The task force consisted of representatives from the King County Solid Waste Division, the City of Seattle, cities in King County, solid waste management companies, and other stakeholders.

**Figure 1. China Sword Local Impacts - Combined Tonnage from King County and Seattle<sup>2</sup>**



**The following terminology is utilized throughout the report and recommendations:**

**Sorting:** The process of taking mixed recyclable materials and separating them into specific commodities that can be sent to a processor. For the commingled recycling system, sorting takes place at a Materials Recovery Facility (MRF).

**Reprocessing:** The process after material sorting whereby sorted materials are transformed into a refined state, such as resin-specific plastic flakes or pellets, prior to being remanufactured into a new product.

**Domestic:** The United States or Canada.

**Region:** King County, Western Washington, and Washington State.

**Short-term:** Actions that could be accomplished within 1 year of publication of this report.

**Mid-term:** Actions that could be accomplished within 2-3 years of start date.

**Long-term:** Actions that could be accomplished within 4+ years of start date.

<sup>1</sup> Colin Staub, “Chinese customs enforcement ramps up with Blue Sky 2018,” <https://resource-recycling.com/recycling/2018/03/13/chinese-customs-enforcement-ramps-up-with-blue-sky-2018/>, (March 13, 2018).

<sup>2</sup> This figure includes both King County and the City of Seattle. The estimate is based on Dept. of Ecology “2017 Annual Report – Recycling Facility” for three recycling facilities in King County (Cascade, 3rd and Lander, Recology) and one in Pierce County (JMK) as well as recycling numbers from the City of Seattle’s [2017 Annual Recycling Rate Report](#).

## Role of Task Force

The role of the Task Force was to learn about the problem, understand policies, programs and activities that are being implemented elsewhere, and identify opportunities for change. The Task Force will provide guidance on next steps that will be brought back to county and city advisory committees and decision makers.

## Problem Statement

The Responsible Recycling Task Force developed a problem statement to address the short-term impacts and the long-term impacts of the China National Sword policies on the region's recycling system.

### ***Short Term Problem: China's import restrictions have reduced markets for mixed paper and mixed plastics.***

The China National Sword policy has resulted in the immediate closure of a significant market for these recyclable materials. Roughly 214,555 tons of mixed paper and mixed plastics generated in King County and Seattle annually was sent to China and now needs to be processed elsewhere. Alternative export and domestic markets for mixed paper and mixed plastics are extremely limited.

- Some haulers/MRFs are asking for surcharges to pay for additional sorting/processing costs.
- Some haulers/MRFs are asking for waivers to landfill recyclable materials that have been damaged or are unable to be recycled. Temporarily landfilling recyclables uses landfill capacity and may erode the public trust in recycling.
- Recycling saves landfill space which delays the transition to more costly disposal options. If mixed paper and mixed plastics generated in King County (outside of Seattle) were to be disposed instead of being recycled for an extended period of time (5 years), this would consume a half year of capacity at Cedar Hills Landfill.
- Waste reduction and recycling are priorities over disposal in the waste management hierarchy in both Washington State statute (RCW 70.95.010) and King County Code (10.14.020 and 10.14.050). King County identifies waste reduction and recycling as the highest priority of solid waste management options and has established a goal to achieve zero waste of resources by 2030.

### ***Long-term Problem: Recycling in King County suffers from three major issues:***

1. **Contamination.** At local MRFs around 10-20% of the tonnage processed are "residuals" that are not recycled. This does not include the contamination that ends up in bales. China's National Sword policy restricts contamination in bales to 0.5%.
  - Materials entering recycling facilities are increasingly contaminated for a variety of reasons, including commingling the materials in one container, new packaging types, and confusion by customers about what materials go into the recycling container.
  - Some materials being collected as part of the approved recyclables list have no markets, contaminate other valuable recyclable material, and/or create problems in the processing system (e.g., plastic bags, poly-coated paper, cartons, and aseptic packaging).

2. **Market vulnerability.** China was the single largest consumer of recyclable materials generated in North America<sup>3</sup>. One-third of all scrap material collected in the U.S. was shipped overseas, with the large majority of this material going to China. In 2016, the U.S. exported \$5.6 billion in scrap commodities to China.<sup>4</sup>
- China has banned import of mixed paper and mixed bales of #3-7 plastics, cutting off the key market for these materials.
  - Some “program” materials are sorted only to “mixed materials,” leading to mixed bales that are not market-ready.
  - There are limited domestic markets for mixed paper and mixed bales of #3-7 plastics meaning that, in many cases, these materials do not have anywhere to go domestically and must be exported.
  - Alternate export markets for mixed paper and plastic bales raise social and environmental justice concerns about what is actually happening to materials, including the contaminants and non-recyclable material.
  - Local material recovery facilities have limited or no capacity for further sorting some mixed materials, such as #3-7 plastics, and are primarily focused on cleaning up their paper bales to achieve a more marketable product.
3. **Recycling is not free.** In many cases, billing for waste collection services is bundled under one charge, giving the public the perception that they are only paying for garbage collection and that recycling is a free service.
- Revenue from the sale of recyclables typically does not offset the costs of collecting, sorting, and processing the recyclable materials. Similar to landfilling, recycling requires funding to collect, transport, and process the materials.
  - There are domestic facilities that will provide secondary sorting to clean up materials so they are acceptable for sale to markets, but there is a cost associated with secondary sorting, which exceeds the cost to export to Southeast Asia.

## Task Force Goals

The Task Force members agreed to the following goals:

- **Short-term Goal:** To help identify near-, mid-, and long-term actions in response to reduction in export markets for mixed recyclable materials due to China’s National Sword policies.
- **Long-term Goal:** To help establish commitment across the region to responsible recycling and domestic sorting/processing of curbside recyclables.

---

<sup>3</sup> “China’s National Sword Policy.” Washington Refuse and Recycling Association presentation. SWANA Evergreen Chapter Technical Session, February, 23, 2018.

<sup>4</sup> “Putting a Price on Recycling: Potential Effects of the Scrap Import Ban on Customer Rates.” FCS presentation. SWANA Evergreen Chapter Technical Session, February, 23, 2018.

## PART 2: THE RESPONSIBLE RECYCLING SYSTEM

The Task Force used a “Responsible Recycling” framework, described below, as the context for developing the recommendations in this report. The framework includes seven elements or practices that help define, support, and lead to a commingled curbside recycling system that produces recyclable materials that are clean and suitable for remanufacture and do not contribute to environmental pollution or endanger human health and safety.

Developing a Responsible Recycling System is a commitment to ensuring that the recyclable materials we collect, transport, and process do not cause harm to the environment and human health, or create social inequities in our country or other countries that might have less stringent regulations than the U.S. for safeguarding human health and the environment.

Implementing a Responsible Recycling System will require significant changes and investments in our recycling collection systems and our sorting, processing, and remanufacturing industries. These changes are imperative to building a sustainable, resilient, efficient, and effective recycling system at work for our region.

### The Responsible Recycling System

1. **Quality vs. Quantity:** Prioritize the collection of materials in the curbside recycling system that have value and documented markets and can be sorted effectively at the MRF over those materials that have marginal value, limited or no markets, or that damage and/or contaminate other valuable commodities and cannot be sorted at the MRF. Recyclable materials that are not able to be collected in a curbside program and/or sorted at the MRF should be collected through other mechanisms such as depots or retail collection sites.
2. **Regional Policy Alignment:** Recycling systems benefit from regional coordination and policy alignment around the collection and processing of materials. Such alignment will optimize sorting and processing, reduce contamination, and lead to maximized marketability of materials. An example of regional coordination would be to work with the plastics industry to establish a program where residents and businesses could bring their plastic bags and film to drop off locations and establish a process to collect and recycle the film into a new viable product.
3. **Harmonized Messaging:** Use consistent messaging across the region or state to reduce confusion by the public around the priority materials that should be recycled and the key materials that should not be recycled in the curbside recycling system, which will ultimately reduce contamination. In addition, practicing consistent messaging and communication will help make clear the importance of responsible recycling to elected officials and policy makers.
4. **Domestic Sorting and Processing:** Prioritize the Domestic (in the United States or Canada) sorting and processing of recycled materials. If no Domestic sorting or processing services exist, require that materials be sent to countries with documented health, safety, and environmental standards that are comparable to those in the U.S. and Canada. Benefits of Domestic sorting and processing include:
  - a. Guarantee of appropriate worker health, safety, and environmental standards.
  - b. Control over the chain of custody and documentation of real recycling.
  - c. Benefits to the local economy, including job growth and industry resiliency.

5. **Create Demand for Recycled Feedstock:** Create demand for products made with recycled materials in order to strengthen markets for recyclable materials. Legislation can require that certain products and/or packaging contain a percentage of recycled feedstock or other means to create demand for recycled commodities. Another approach is to require government agencies (and others) to increase procurement of products made with recycled materials.
6. **Responsible Recycling Requires Additional Investment:** The full environmental benefits of recycling are not achieved until new products are made with recycled feedstocks. The management of waste, including recycling, has always had a cost. Replacing virgin feedstocks in manufacturing with recycled materials will require additional investments and funding to support effective collection, processing, and remanufacture.
7. **Measure Real Recycling:** Recycling should be measured by tracking the amount of recycled materials that are actually used as feedstock to make new products rather than measuring the amount of materials that are collected in a recycling container. This will discourage the practice of accepting materials in the recycle program to get credit for recycling them, even if there are no viable end markets for these materials and they end up being disposed.

### PART 3: RECOMMENDATIONS AND ACTION ITEMS

Goals to improve King County’s recycling systems, Recommendations for how to accomplish those goals, and Action Items were developed and prioritized by the Responsible Recycling Task Force at the monthly Task Force meetings. The Recommendations are displayed in order of priority in summary format in Table 1. Following the table, a work program to implement the priority recommendations/action items is described.

Table 1. Goals, Recommendations, and Action Items

<b>Goal 1: Establish Responsible Recycling Policies</b>			
<b>Recommendation:</b> Our region should support, create, and advocate for policies that establish a statewide system of responsible recycling.			
Action Items	Implementing Parties	Timeframe	RR Framework relevance
1A. Develop a comprehensive, statewide stewardship policy approach that helps achieve a funded, robust, and harmonized curbside recycling system throughout Washington State.	KC SWD/ KC Cities/ Seattle	Start in 2019	<ul style="list-style-type: none"> <li>Regional Policy Alignment</li> <li>Responsible Recycling Requires Additional Investment</li> <li>Harmonized Messaging</li> </ul>
1B. Support legislation that promotes the use of innovative technologies and/or processes to help develop and build local recycling infrastructure and market development.	KC SWD/ KC Cities/ Seattle	Start in 2019	<ul style="list-style-type: none"> <li>Domestic Processing Infrastructure</li> </ul>
1C. Support and refine Plastics Packaging Stewardship legislation in the 2019 legislative session.	KC SWD/ KC Cities/ Seattle	Start in 2019	<ul style="list-style-type: none"> <li>Responsible Recycling Requires Additional Investment</li> <li>Regional Policy Alignment</li> </ul>

## Goal 1: Establish Responsible Recycling Policies

**Recommendation:** Our region should support, create, and advocate for policies that establish a statewide system of responsible recycling.

Action Items	Implementing Parties	Timeframe	RR Framework relevance
1D. Advocate for Responsible Recycling policies by requesting that elected officials adopt a Responsible Recycling System in their jurisdictions.	KC SWD/ KC Cities/ Seattle	Start in 2019	<ul style="list-style-type: none"> <li>All</li> </ul>
1E. Develop a feasible model for beverage container stewardship in Washington similar to the Oregon Beverage Recycling Cooperative model.	KC SWD/ KC Cities/ Seattle	Start in 2020	<ul style="list-style-type: none"> <li>Responsible Recycling Requires Additional Investment</li> <li>Domestic Processing and Markets</li> </ul>

## Goal 2: Develop Local Recycling Infrastructure

**Recommendation:** Our region should support the development of our local recycling infrastructure to build resiliency, create local jobs, minimize greenhouse gases from transportation and production, and increase the ability to document and measure real recycling.

Action Items	Implementing Parties	Timeframe	RR Framework relevance
2A. Conduct pilot projects to encourage the development of a domestic recycling infrastructure.	KC SWD/ KC Cities/ Seattle/ Haulers	Start in 2019	<ul style="list-style-type: none"> <li>Domestic Processing and Markets</li> </ul>
2B. Advocate for the expansion of the Wrap Recycling Action Program (WRAP) <sup>5</sup> to establish an effective statewide program to capture plastic bags/film.	KC SWD/ Seattle/ Communication Consortium	Start in 2019	<ul style="list-style-type: none"> <li>Quality vs. Quantity</li> <li>Regional Policy Alignment</li> </ul>
2C. Ensure resources to assist with development of markets for paper, plastic, and compost.	KC SWD/ Seattle	Start in 2019	<ul style="list-style-type: none"> <li>Responsible Recycling Requires Additional Investment</li> </ul>

<sup>5</sup> The Wrap Recycling Action Program (WRAP) is a national program that works with governments, retailers, and MRFs to help communities keep plastic film out of their MRFs and increase the amount of plastic film collected for recycling at drop-off locations.

<https://www.plasticfilmrecycling.org/recycling-bags-and-wraps/wrap-consumer-content/>

### Goal 3: Harmonize Recycling Programs and Messaging

**Recommendation:** All regional curbside programs should use consistent messaging about what is accepted and not accepted in the curbside recycling container.

Action Items	Implementing Parties	Timeframe	RR Framework relevance
3A. Develop a process and criteria for adding/removing materials in the curbside recycling programs with criteria that is consistent with the responsible recycling framework.	KC SWD/ Seattle/ KC Cities	Start in 2019	<ul style="list-style-type: none"> <li>Quality vs. Quantity</li> <li>Responsible Recycling Requires Additional Investment</li> </ul>
3B. Continue the Communication Consortium to create unified messaging about curbside recycling to King County residents.	KC SWD/ Seattle/ KC Cities/ Haulers	Start in 2019	<ul style="list-style-type: none"> <li>Harmonized Messaging</li> <li>Quality vs. Quantity</li> </ul>
3C. Develop a system to coordinate with the City of Seattle on recycling programs and policies.	KC SWD/ Seattle	Start in 2019	<ul style="list-style-type: none"> <li>Regional Policy Alignment</li> </ul>

### Goal 4: Increase Demand for Recycled Materials

**Recommendation:** Our region should create demand for products made with recycled commodities.

Action Items	Implementing Parties	Timeframe	RR Framework relevance
4A. Establish recycled-content legislation that requires that certain products be made with a certain amount of recycled material.	KC SWD/ KC Cities/ WA State	Start in 2020	<ul style="list-style-type: none"> <li>Create Demand for Recycled Feedstock</li> </ul>
4B. Establish or update procurement ordinances that require the purchase of products made with post-consumer recycled materials and train staff to implement the ordinances.	KC SWD/ Seattle/ KC Cities	Start in 2020	<ul style="list-style-type: none"> <li>Create Demand for Recycled Feedstock</li> </ul>
4C. Work with the Association of Plastic Recycler's Demand Champions <sup>6</sup> program to encourage King County companies to procure items made with recycled plastics such as pallets, garbage cans, and other "work in process" items.	KC SWD/ Seattle/ KC Cities	Start in 2020	<ul style="list-style-type: none"> <li>Create Demand for Recycled Feedstock</li> </ul>
4D. Explore other procurement opportunities similar to Demand Champions, for buying products made with recycled materials such as office paper, cardboard, shipping containers, etc.	KC SWD/ Seattle/ KC Cities	Start in 2020	<ul style="list-style-type: none"> <li>Create Demand for Recycled Feedstock</li> </ul>

<sup>6</sup> The APR Demand Champions consist of companies that are committed to making purchasing decisions that create consistent, reliable demand for recycled plastic. <https://www.plasticsrecycling.org/recycling-demand-champions/demand-champion-companies>

## Goal 5: Create Clean and Marketable Feedstocks

**Recommendation:** Local governments and their service providers should require that the collecting, sorting, and processing of recyclable materials does not contribute to environmental pollution or endanger human health and safety and that materials are clean and suitable for remanufacture before being exported.

Action Items	Implementing Parties	Timeframe	RR Framework relevance
5A. Update City and County Recycling Contracts and Codes to prioritize domestic sorting and processing and require documentation of the chain of custody from sorting facilities to legitimate end markets.	KC SWD/ Seattle/ KC Cities	Start in 2019	<ul style="list-style-type: none"> <li>• Domestic Processing and Markets</li> </ul>
5B. Remove plastic bags/film and shredded paper from the materials that are accepted in recycling programs in King County and the City of Seattle.	KC SWD/ Seattle/ KC Cities/ Communication Consortium/ Haulers	Start in 2019	<ul style="list-style-type: none"> <li>• Quality vs. Quantity</li> <li>• Regional Policy Alignment</li> </ul>
5C. Support “Reusable Bag” legislation to reduce the number of plastic bags entering the garbage and recycling system.	KC SWD/ Seattle/ KC Cities	Start in 2019	<ul style="list-style-type: none"> <li>• Quality vs. Quantity</li> <li>• Regional Policy Alignment</li> </ul>
5D. Develop a methodology for documenting the chain of custody to monitor adherence to recognized environmental and human health and safety standards.	KC SWD/ Seattle/ KC Cities/ Haulers	Start in 2019	<ul style="list-style-type: none"> <li>• Domestic Processing and Markets</li> </ul>
5E. Develop a consistent process for evaluating and granting surcharges on recycling rates and waivers to allow for periodic disposal of recyclable materials.	KC SWD/ KC Cities/ UTC/ Haulers	Start in 2019	<ul style="list-style-type: none"> <li>• Regional Policy Alignment</li> </ul>
5F. Measure real recycling by tracking and documenting MRF residuals, measuring contamination in bale breaks, and conducting periodic MRF material characterization studies.	KC SWD/ Seattle/ Haulers	Start in 2020	<ul style="list-style-type: none"> <li>• Measure Real Recycling</li> </ul>
5G. Track the market price and conditions of recyclable materials on a monthly basis.	KC SWD/ Seattle	Start in 2019	<ul style="list-style-type: none"> <li>• Measure Real Recycling</li> </ul>



## Goal 6: Improve Upstream Design

**Recommendation:** Local government should partner with national organizations to get local companies to commit to using recycled materials in new products and develop product messaging and package design that supports a system of responsible recycling.

Actions Items	Implementing Parties	Timeframe	RR Framework relevance
6A. Engage with the Sustainable Packaging Coalition <sup>7</sup> and their How2Recycle <sup>8</sup> programs to help educate brands and packaging designers on recyclability of packaging, the use of recycled materials in packaging, and designing packaging that is less toxic and more recyclable (e.g., no PVC plastic).	KC SWD/ KC Cities/ Seattle	Start in 2019	<ul style="list-style-type: none"> <li>• Create Demand for Recycled Feedstock</li> </ul>

### 2019 Work Program Action Items

The prioritized Goals, Recommendations, and Action Items presented in Table 1 have been developed into a work program that would begin implementation in 2019 by the King County Solid Waste Division (KC SWD), Seattle and their partner agencies and service providers. The following section outlines the actions that are necessary to accomplish the recommended goals. It identifies existing KC SWD resources and staffing that will be reallocated to implement each action item.

### Goal 1: Establish Responsible Recycling Policies

*Recommendation:* Our region should support, create, and advocate for policies that establish a statewide system of responsible recycling.

**Action Item 1A:** Develop a comprehensive, statewide stewardship policy approach that helps achieve a funded, robust, and harmonized curbside recycling system throughout Washington State.

The action item that ranked as a top priority by the RRTF is to conduct a study of extended producer responsibility (EPR) systems to understand how the program/policy elements could be applied to Washington State to address issues of sustainable financing, consistency of programming and messaging, economies of scale, and reduce levels of contamination. The study will analyze the current recycling and solid waste laws in Washington and will document the existing recycling infrastructure to understand the changes that would be necessary to implement an EPR system in Washington. The report will recommend policies and programs to create an EPR system that would: establish a sustainable financing source; create a harmonized list of materials that are collected/recycled; create a harmonized outreach and messaging program; result in reduced contamination; provide access to packaging/product designers to help facilitate the recycling of products/packaging; and provide opportunities for research and development of new/enhanced domestic markets for the recyclable commodities collected in Washington State.

<sup>7</sup> The Sustainable Packaging Coalition (SPC) is a membership-based collaborative that works to strengthen and advance the business case for more sustainable packaging. <https://sustainablepackaging.org/about-us/>

<sup>8</sup> How2Recycle is a standardized labeling system that brands can choose to include on their packaging to clearly communicate recycling instructions to the public. <http://www.how2recycle.info/>

### ***Implementing Parties***

- **KC SWD:** KC SWD will work with consultants to perform a study of existing producer responsibility programs for packaging and printed materials and develop guidance for implementing an EPR system in Washington State.
- **Cities, City of Seattle:** Assist with the research and provide information as needed.

**Action Item 1B:** Support legislation that promotes the use of innovative technologies and/or processes to help develop and build local recycling infrastructure and market development.

It is expected that several bills will be introduced in the 2019 legislative session that support the development of new sorting and processing technologies and facilities in Washington State. The RRTF recommends providing input on these bills to ensure they are in line with the Responsible Recycling Framework and advocating for the passage of these bills.

### ***Implementing Parties***

- **KC SWD, Cities, City of Seattle:** Encourage elected officials to support these bills, put it on legislative agenda, ask Washington State Association of Counties (WSAC) and Association of Washington Cities (AWC) to support.

**Action Item 1C:** Support and refine Plastics Packaging Stewardship legislation in the 2019 legislative session.

It is expected that a bill will be introduced in the 2019 legislative session that would establish a statewide Responsible Recycling System for plastic packaging. The legislation requires the producers of plastics packaging to fund and oversee the program. It would require the use of recycled plastics in products and provide resources to clean up plastic litter. The RRTF recommends providing input on the bill and advocating for its passage.

### ***Implementing Parties***

- **KC SWD, Cities, City of Seattle:** Encourage elected officials to support the bill, put it on legislative agenda, ask Washington State Association of Counties (WSAC) and Association of Washington Cities (AWC) to support.

**Action Item 1D:** Advocate for Responsible Recycling policies by requesting that elected officials adopt a Responsible Recycling System in their jurisdictions.

The RRTF recommends developing a process for engaging elected officials to request their adoption of the Responsible Recycling Framework and advocating for Responsible Recycling Systems. At the start of each legislative session, identify bills that support and advance Responsible Recycling Systems and advocate for support of these bills.

### ***Implementing Parties***

- **KC SWD, Cities, City of Seattle:** Encourage elected officials to support these bills, put it on legislative agenda, ask Washington State Association of Counties (WSAC) and Association of Washington Cities (AWC) to support.

**Action Item 1E:** Develop a feasible model for beverage container stewardship in Washington similar to the Oregon Beverage Recycling Cooperative model.

Action Item 1E will be implemented starting in 2020. Please refer to the Work Program Action Items on page 21.

## Goal 2: Develop Local Recycling Infrastructure

*Recommendation:* Our region should support the development of our local recycling infrastructure to build resiliency, create local jobs, minimize greenhouse gases from transportation and production, and increase the ability to document and measure real recycling.

**Action Item 2A:** Conduct pilot projects to encourage the development of a domestic recycling infrastructure.

The RRTF recommends conducting pilot programs to test the feasibility of sorting and processing recyclable materials here in the U.S. or in Canada. New domestic markets could be explored, for example, sending #3 - 7 plastics to a chemical recycling processor that recycles these plastics back into fuel or plastic monomers for recycling back into plastic products. If successful, pilot programs could be continued to support the domestic recycling infrastructure.

### **Implementing Parties**

- **KC SWD:** Explore opportunities for pilot programs with their solid waste service providers and vendors. They will also look for opportunities to partner with cities on pilot programs.
- **City of Seattle:** Explore opportunities for pilot programs with their solid waste service providers and vendors. Partner with the county and other cities, when appropriate.
- **KC Cities:** Explore opportunities for pilot programs with their solid waste service providers and vendors. Partner with the county and other cities, when appropriate.
- **Solid Waste Management Companies:** Explore opportunities to test new technologies and processes for sorting and processing of materials to support domestic recycling infrastructure. Propose pilot programs to the cities and the county.

**Action Item 2B:** Advocate for the expansion of the Wrap Recycling Action Program (WRAP) to establish an effective statewide program to capture plastic bags/film.

The [Wrap Recycling Action Program \(WRAP\)](#) is a national public awareness and outreach initiative by the American Chemistry Council (ACC) to provide retail drop off sites for plastic film including outer plastic wrap, bags, and flexible packaging. WRAP works with stakeholders including local and state governments, retailers, and material recovery facilities (MRFs) to educate consumers about what types of plastic film are recyclable, and how and where to recycle it.

The City of Seattle has conducted research on the availability of drop off sites for bags and film in the Seattle area and has initiated conversations with the ACC to explore ways to expand the program in Seattle. King County has a [“Bag your Bags”](#) website that provides information about many of the drop off sites in King County cities and unincorporated areas.

This action item would engage the ACC to provide additional drop off sites in the King County area and a [national website directory](#) of drop off sites that is maintained on the WRAP website and updated by their staff.

### ***Implementing Parties***

- **KC SWD:** Coordinate with the City of Seattle and all of the cities to move forward with a WRAP program. The Communication Consortium will be involved to roll out the program.
- **City of Seattle:** Coordinate with KC SWD, and promote the WRAP drop-off locations for plastic bags/film at retail stores.
- **Communication Consortium:** The Consortium will coordinate the education and outreach campaign for publicizing the removal of bags/film from the curbside recycling programs and the new drop off locations at retail stores.

**Action Item 2C:** Ensure resources to assist with development of markets for paper, plastic, and compost.

The RRTF recommends that cities, the county, and private sector companies provide resources that will help to establish and sustain markets for recyclable materials including paper, plastics, and compost. Through the KC SWD *LinkUp* program, resources will be secured to assist with pilot projects, research, and networking to help encourage new markets for the materials collected via our programs.

### ***Implementing Parties***

- **KC SWD:** Lead the effort to help develop markets for paper, plastic, and compost through the *LinkUp* program.
- **City of Seattle:** Provide funding and support to the *LinkUp* program.

## **Goal 3: Harmonize Recycling Programs and Messaging**

***Recommendation:*** All regional curbside programs should use consistent messaging about what is recyclable and not recyclable in the curbside recycling container.

**Action Item 3A:** Develop a process and criteria for adding/removing materials in the curbside recycling programs with criteria that is consistent with the responsible recycling framework.

The RRTF recommends developing criteria and a process for evaluating which recyclable materials are suitable for collection in commingled recycling programs. The criteria will be used to review the addition of new commodities or the removal of commodities that become problematic. The criteria would include an evaluation of the benefits and costs of collecting/sorting/processing a recyclable material (example: #3-7 plastics). The process will include annual reviews of the commodity markets and prices with SWAC, MSWMAC, and the City of Seattle.

### ***Implementing Parties***

- **KC SWD:** Lead development of the criteria and process for adding and removing materials from the recycling programs with input from the King County Advisory Committees.
- **City of Seattle:** Participate in the development of the criteria and process for evaluating the materials.
- **KC Cities:** Participate in the development of the criteria and process for evaluating the materials.

**Action Item 3B: Continue the Communication Consortium to create unified messaging about curbside recycling to King County residents.**

The RRTF recommends continuing the Communication Consortium that was established in early 2018 as the first step to achieving the goal of harmonized messaging and programs. Members of the Consortium include communications staff from the KC SWD, City of Seattle, representatives from several King County Cities, the Sound Cities Association, and solid waste service providers.

In 2018, the Consortium developed a harmonized communications campaign and tool kit for agencies and elected officials to explain China's National Sword policies, the impacts to recycling programs, and why it is essential to reduce contamination in curbside recycling programs. The Consortium is now implementing consistent, regional messaging that instructs recyclers to make sure that their recyclable materials are "empty, clean, and dry" before putting them in the recycling container.

***Implementing Parties***

- ***KC SWD:*** Lead the Communication Consortium and contribute funding to implement outreach strategies.
- ***City of Seattle:*** Continue to participate in the Communication Consortium and provide funding as possible.
- ***KC Cities:*** Continue to participate in the Communication Consortium and provide funding and support for outreach efforts when possible.
- ***Solid Waste Management Companies:*** Continue to participate and support through their outreach efforts with their customers.

**Action Item 3C: Develop a system to coordinate with the City of Seattle on recycling programs and policies.**

The RRTF is a coordinated effort between King County, King County Cities, and the City of Seattle. The City of Seattle is a member of the planning team and an active participant in the Task Force. Continued coordination between all members of the Task Force is essential to successfully implement the Action Items included in this Report and to achieve the identified Goals.

The City of Seattle will develop and utilize a parallel process for presenting Recommendations and Action Items for approval from its solid waste advisory committee (SWAC). Recommendations that are brought to King County SWAC and MSWMAC will also be brought to the Seattle SWAC in the same time frame. Every effort should be made to adopt harmonized messaging, policies, and programs that support the Responsible Recycling Framework.

***Implementing Parties***

- ***KC SWD:*** Work with the City of Seattle to establish an ongoing work group to coordinate on the Recommendations that will be transmitted to the respective SWACs for approval. Continue to coordinate on the implementation of programs and policies that are approved by the SWACs.
- ***City of Seattle:*** Establish a mechanism for bringing Task Force recommendations to the City of Seattle SWAC.

## Goal 4: Increase Demand for Recyclable Materials

Recommendations and Action Items for *Goal 4: Increase Demand for Recycled Materials*, will be implemented starting in 2020. Please refer to the Work Program Action Items on page 21.

## Goal 5: Create Clean and Marketable Feedstocks

*Recommendation:* Local governments and their service providers should require that the collecting, sorting, and processing of recyclable materials does not contribute to environmental pollution or endanger human health and safety and that materials are clean and suitable for remanufacture before being exported.

**Action Item 5A:** Update City and County Recycling Contracts and Codes to prioritize domestic sorting and processing and require documentation of the chain of custody from sorting facilities to legitimate end markets.

The Task Force recommends that cities and the county take measures to ensure that materials that are collected in recycling programs are actually recycled into new products and that it is done in a manner that is protective of human health and the environment. The following responsible recycling elements should be included in city or county recycling contracts as they are amended and/or new contracts are established:

- Prioritize that sorting and processing take place in the U.S. or Canada.
- Require that no mixed bales that contain non-recyclable materials are exported.
- Require downstream due diligence, documenting sale to end market.
- Consider risk sharing on commodity prices.

### ***Implementing Parties***

- **KC SWD:** KC SWD has executed a new contract to collect, transport, and process recyclable materials from customers at its transfer stations. The contract with the solid waste management company can serve as a model for other cities and counties to use to incorporate the responsible recycling elements.
- **KC Cities and City of Seattle:** Include the responsible recycling elements in RFPs and contracts for recycling services.

**Action Item 5B:** Remove plastic bags/film and shredded paper from the materials that are accepted in recycling programs in King County and the City of Seattle.

An action item that can be immediately implemented to achieve the goal of clean and marketable materials is to remove plastic bags, film, and shredded paper from the region's curbside recycling programs. These materials cannot be recycled effectively through the commingled curbside recycling programs. Once they reach the Materials Recovery Facilities (MRFs) where all of the commingled materials are sorted, the plastic bags and film get tangled in the MRF equipment and it requires the staff to extract the bags/film from the equipment. The bags and film become dirty and end up being disposed rather than recycled. Shredded paper is too small to be sorted by the MRF equipment and ends up being disposed of as residuals. The labor and disposal costs to deal with these materials is significant and does not result in the materials being recycled.

The City of Seattle found that MRF operators are only able to remove about 25% of the plastic bags during the pre-sort process. The remaining bags consistently contaminate other baled material. They further found that while plastic bags and film make up roughly 0.2% of incoming material by weight (about one bale per day),

approximately 20-30% of recycling center labor is attributed to these materials, costing \$700 - \$1,000 per ton to remove this material. A strategy and education campaign will be developed to remove these materials from the region's recycling programs.

#### ***Implementing Parties***

- ***KC SWD:*** Coordinate the process to obtain approval from all of the cities to move forward with an education and outreach campaign.
- ***KC Cities and City of Seattle:*** The cities will determine whether recycling contracts will need to be amended to remove these materials from the curbside recycling list. Another option is to leave the materials in the contract but deemphasize recycling of bags/film and shredded paper in educational materials and promote alternative recycling options such as drop off of plastic bags/film at retail stores and community "shred events."
- ***Communication Consortium:*** The Consortium will coordinate the education and outreach campaign for publicizing the removal of these materials from the curbside recycling system.
- ***Solid Waste Management Companies:*** Provide support through outreach efforts with their customers.

**Action Item 5C:** Support "Reusable Bag" legislation to reduce the number of plastic bags entering the garbage and recycling system.

KC SWD and the Cities should support legislation to ban single-use plastic bags. This action supports the goal of clean and marketable materials by reducing the number of plastic bags entering the system, thus reducing contamination while promoting the use of durable bags. A bill will be introduced in the 2019 legislative session that prohibits the use of single-use plastic carryout bags and will require a charge of 10 cents on all paper carryout bags to encourage shoppers to bring their own reusable carryout bags. The retailers will retain the 10 cents charge. The bill requires that bags be made with paper that include recycled fiber and requires that compostable bags be tinted either green or brown to reduce confusion by consumers.

#### ***Implementing Parties***

- ***KC SWD, Cities, City of Seattle:*** Encourage elected officials to support the bill, put it on legislative agenda, ask Washington State Association of Counties (WSAC) and Association of Washington Cities (AWC) to support.

**Action Item 5D:** Develop a methodology for documenting the chain of custody to monitor adherence to recognized environmental and human health and safety standards.

The RRTF recommends that a methodology be developed to ensure that if there are no domestic markets for sorting and processing recyclable materials and materials must be exported to other countries, they are sent only to countries that have established and enforced standards and regulations that are protective of human health and the environment. Research will be conducted to identify standards that already exist such as those developed by the [International Organization for Standardization \(ISO\)](#) and the [Organisation for Economic Co-operation and Development \(OECD\)](#). The information will be used to develop the methodology for exporting recyclable commodities and for requiring specific documentation to ensure the materials are being processed responsibly.

### ***Implementing Parties***

- ***KC SWD:*** KC SWD will lead the research efforts and provide recommendations for review by the King County Advisory Committees.
- ***KC Cities and City of Seattle:*** Representatives from the Cities will contribute to the research efforts.
- ***Solid Waste Management Companies:*** Representatives will participate in the process to develop the methodology and providing information to support this effort.

**Action Item 5E:** Develop a consistent process for evaluating and granting surcharges on recycling rates and waivers to allow for periodic disposal of recyclable materials.

The RRTF recommends developing a consistent process and criteria for evaluating whether to grant permission to dispose of recyclable materials when recyclable materials become damaged and/or are unable to be recycled. In addition, criteria and a process should be developed for granting a temporary surcharge or rate increase in cases where there is a significant, sudden shift in the availability of markets for recyclable materials.

### ***Implementing Parties***

- ***KC SWD:*** Take the lead and work with the cities to establish the process and criteria for granting waivers to allow disposal of damaged recyclable materials.
- ***KC Cities:*** Work with KC SWD to develop the process and criteria.
- ***WUTC:*** Work with KC SWD to determine if adjustments are needed to their process for granting surcharges.
- ***Solid Waste Management Companies:*** Work with KC SWD and cities to develop the process and criteria.

**Action Item 5F:** Measure real recycling by tracking and documenting MRF residuals, measuring contamination in bale breaks, and conducting periodic MRF material characterization studies.

Action Item 5F will be implemented starting in 2020. Please refer to the Work Program Action Items on page 21.

**Action Item 5G:** Track the market price and conditions of recyclable materials on a monthly basis.

The RRTF recommends tracking the sale prices of recyclable materials on a monthly basis to understand and prepare for downturns in the recyclable materials markets.

### ***Implementing Parties***

- ***KC SWD:*** Collaborate with the City of Seattle and the WUTC to understand the market data they already track. Develop a method for regularly sharing with cities and other interested parties. In addition, KC SWD could track other sources of this data.
- ***City of Seattle:*** Collaborate with KC SWD to share the market data they track.



## Goal 6: Improve Upstream Design

*Recommendation:* Local government should partner with national organizations to get local companies to commit to using recycled materials in new products and develop product messaging and package design that supports a system of responsible recycling.

**Action Item 6A:** Engage with the Sustainable Packaging Coalition and their How2Recycle programs to help educate brands and packaging designers on recyclability of packaging, the use of recycled materials in packaging, and designing packaging that is less toxic and more recyclable (e.g., no PVC plastic)

The RRTF recommends engaging package designers with the goal of increasing their understanding of the types of packaging that can and cannot be sorted and processed, the importance of using recycled materials in packaging, and the importance of using materials that are less toxic and more recyclable (no PVC plastic for example).

The first step to achieve this action is to attend, network, and present at the Sustainable Packaging Coalition (SPC) conference, taking place in Seattle in April, 2019.

### **Implementing Parties**

- **KC SWD:** KC SWD will continue its membership in the SPC and speak at the SPC conference in April 2019. KC SWD staff will continue to collaborate with SPC leaders and will coordinate with them on packaging design and recycling initiatives such as the WRAP program.
- **City of Seattle:** Seattle staff will continue to participate in the SPC to support their members' efforts in our region. Engage with KC SWD and Cities to support SPC's efforts in our region.
- **KC Cities:** Support Seattle's leadership in participating in the SPC.

## 2020 Work Program Action Items

The following action items will be implemented in 2020 and beyond.

- **Action Item 1E:** Develop a feasible model for beverage container stewardship in Washington similar to the Oregon Beverage Recycling Cooperative model.
- **Action Item 4A:** Establish recycled-content legislation that requires that certain products be made with a certain amount of recycled material.
- **Action Item 4B:** Establish or update procurement ordinances that require the purchase of products made with post-consumer recycled materials and train staff on implementing the ordinances.
- **Action Item 4C:** Work with the Association of Plastic Recycler's Demand Champions program to encourage King County companies to procure items made with recycled plastics such as pallets, garbage cans and other "work in process" items.
- **Action Item 4D:** Explore other procurement opportunities similar to the Demand Champions, for buying products made with recycled materials such as office paper, cardboard, shipping containers etc.
- **Action Item 5F:** Measure real recycling by tracking and documenting MRF residuals, measuring contamination in bale breaks, and conducting periodic MRF material characterization studies.

## Mechanisms for Implementation

The recommendations in this Report can be implemented via the “committees” described below. The RRTF also recommends continued collaboration with the City of Seattle to ensure consistent implementation of the Responsible Recycling Recommendations. This could be accomplished by having a staff member from the City of Seattle participate on the following committees.

- Continue the **Communication Consortium** to provide consistent messaging across the County, including the City of Seattle.
- Create a **Responsible Recycling Committee** made up of members of the RRTF to track the progress toward implementing the approved recommendations. The Committee could meet on a regular basis to track progress and would report back to the King County and Seattle leadership and SWAC.
  - Track implementation of the work program.
  - Track recycling legislation that conforms with the Responsible Recycling Framework and make recommendations about whether to support, modify, or take other actions on the legislation.
  - Engage elected officials in supporting policy-related recommendations and action items.

## Next Steps for Adoption and Implementation

- **Q1 2019:** Bring recommendations and action items to King County Advisory Committees (SWAC and MSWMAC).
- **January 2019:** KC SWD to present on 2019 bills that pertain to Responsible Recycling.
- **February 2019:** Develop the Responsible Recycling Committee, establish charter, work program, and meeting schedules.
- **February 2019:** KC SWD develops work program to implement the Priority Recommendations for 2019.
- **February 2019:** KC SWD sets the agenda items for 2019 SWAC and MSWMAC meetings.

## APPENDIX A: MEETING STRUCTURE AND MEMBERS

The Responsible Recycling Task Force met nine times during the time period from April 2018 – December 2018. Each meeting was designed to address a different topic related to the responsible recycling framework. Guest speakers and Task Force members were invited to present at each meeting to share information and spur discussion around alternate methods of recycling and other innovative ways to build a system of responsible recycling.

Task Force members and guest speakers include:

Task Force Members		
April	Atwood	Seattle University, SWAC Vice Chair
Stacey	Auer	City of Redmond
Elaine	Borjeson	City of Bellevue
Joe	Casalini	Republic Services
Sabrina	Combs	City of Bothell
Uki	Dele	City of Shoreline
Tony	Donati	City of Kent
Mary	Evans	Waste Management
Susan	Fife-Ferris	Seattle Public Utilities
Jeff	Gaisford	KCSWD
Mason	Giem	City of SeaTac
Sego	Jackson	Seattle Public Utilities
Carla	Johnson	Republic Services
Phillippa	Kassover	City of Lake Forest Park, SWAC
Kevin	Kelly	Recology, SWAC Chair
Linda	Knight	City of Renton, MSWMAC Vice Chair
Ann	Larue	Washington Utilities & Transportation Commission
John	MacGillivray	City of Kirkland
Ken	Marshall	KC SWAC
Michelle	Metzler	Waste Management
Joan	Nelson	City of Auburn
Emily	Newcomer	Waste Management
Joyce	Nichols	City of Bellevue
Sarah	Ogier	City of Bellevue
Janet	Prichard	Republic Services
Cameron	Reed	City of Shoreline
Andy	Rheaume	City of Redmond
Lisa	Sepanski	KCSWD
Gary	Schimek	City of Redmond
Stephanie	Schwenger	City of Bellevue

Matt	Stern	Waste Management
Penny	Sweet	City of Kirkland
Hans	VanDusen	Seattle Public Utilities
Rob	Van Orsow	City of Federal Way
Mike	Young	Washington Utilities & Transportation Commission
<b>Included on Task Force Communications</b>		
Cynthia	Foley	Sound Cities Association
Jennifer	Jessen	Public Health
Alli	Kingfisher	Department of Ecology
Brad	Lovaas	WRRRA
Meg	Moorehead	KCSWD
Yolanda	Pon	Public Health
Kerwin	Pyle	KCSWD
Terra	Rose	King County Council
John	Walsh	KCSWD
Dorian	Waller	KCSWD
<b>Guest Speakers</b>		
Priyanka	Bakaya	CEO and Founder, Renewlogy <i>(10/26/18 meeting)</i>
Sam	Baker	Recycle BC <i>(8/24/18 meeting)</i>
Cherilyn	Bertges	BottleDrop Give Program Manager, OBRC <i>(10/26/18 meeting)</i>
Jeff	Brown	Epicer Services, LLC <i>(6/18/18 meeting)</i>
Tamara	Burns	VP Supply Chain, Recycle BC <i>(8/24/18 meeting)</i>
Kim	Carswell	Director of Packaging, Target <i>(11/15/18 meeting)</i>
Eric	Elliott	Recycling Coordinator and Compost Technician, Seattle University <i>(7/18/18 meeting)</i>
Scott	Farling	Titus MRF Services <i>(7/18/18)</i>
Nina	Goodrich	Executive Director, Sustainable Packaging Coalition <i>(8/24/18 meeting)</i>
Norma	Smith	WA House of Representatives, 10 <sup>th</sup> Legislative District <i>(9/19/18 meeting)</i>
Heather	Trim	Executive Director, Zero Waste Washington <i>(9/19/18 meeting)</i>
Kim	Van Ekstrom	KCSWD/Communication Consortium <i>(6/1/18 meeting)</i>

For specific meeting topics and agenda details, please review Appendix B: Meeting Agendas and Topics.

## APPENDIX B: MEETING AGENDAS AND TOPICS

### ➤ Meeting 1

- **Date:** April 30, 2018
- **Meeting Topic:** Task Force Introduction and The Responsible Recycling Framework
- **Agenda and Presenters:**
  - Welcome and Introduction
  - Task Force Goals and Final Outcomes – *Jeff Gaisford (KCSWD)*
  - Responsible Recycling Framework – *Lisa Sepanski (KCSWD)*
  - Current Conditions in King County – *Sego Jackson (SPU), Matt Stern (Waste Management), Janet Prichard (Republic Services), Kevin Kelly (Recology)*
  - Communication Updates – *Jeff Gaisford*
  - Task Force Meeting Schedule and Proposed Topics
- [Meeting Minutes](#)
- [Meeting Presentation](#)

### ➤ Meeting 2

- **Date:** June 1, 2018
- **Meeting Topic:** What's in the Bin?
- **Agenda and Presenters:**
  - Welcome and Introduction
  - Task Force Problem Statement
  - Responsible Recycling Task Force Meeting Schedule
  - What's in the Bin? – *Lisa Sepanski (KCSWD)*
  - Communication Consortium Update – *Kim van Ekstrom (KC)*
  - Wrap Up and Next Steps
- [Meeting Minutes](#)
- [Meeting Presentation](#)

### ➤ Meeting 3

- **Date:** June 18, 2018
- **Meeting Topic:** Contracts, Waivers and Surcharges
- **Agenda and Presenters:**
  - Welcome and Introduction
  - Waivers Panel – *Jeff Gaisford and Meg Moorehead (KCSWD)*
  - Surcharges – *Mike Young (WA UTC)*
  - Contract Panel – *Hans Van Dusen (SPU) and Jeff Brown (Epicenter Services, LLC)*
  - Wrap Up and Next Steps
- [Meeting Minutes](#)
- [Meeting Presentation](#)

### ➤ Meeting 4

- **Date:** July 18, 2018
- **Meeting Topic:** Domestic Processing Infrastructure: Fiber & Plastics
- **Agenda and Presenters:**

- Welcome and Introduction
- Fiber Markets Overview – *Kevin Kelly (Recology) and Eric Elliot (Seattle University)*
- Plastic Sorting, Processing and Markets – *Sego Jackson (SPU) on behalf of Merlin Plastics*
- Secondary Sorting and Processing – *Scott Farling (Titus MRF Services)*
- Existing Research and Further Study – *Lisa Sepanski (KCSWD)*
- Wrap Up and Next Steps
- [Meeting Minutes](#)
- [Meeting Presentation](#)

➤ **Meeting 5**

- **Date:** August 24, 2018
- **Meeting Topic:** Working with Producers
- **Agenda and Presenters:**
  - Welcome and Introduction
  - Recycle BC Overview and Framework – *Tamara Burns and Sam Baker (Recycle BC)*
  - National and Private Sector Sustainable Packaging Efforts – *Nina Goodrich (Sustainable Packaging Coalition)*
  - Wrap Up and Next Steps
- [Meeting Minutes](#)
- [Meeting Presentation](#)

➤ **Meeting 6**

- **Date:** September 19, 2018
- **Meeting Topic:** Policy Approaches in Support of Responsible Recycling
- **Agenda and Presenters:**
  - Welcome and Introduction
  - Legislation for Recycling and Recycling Markets – *Representative Norma Smith (WA House of Representatives)*
  - Plastic Packaging Stewardship – *Sego Jackson (SPU)*
  - Local and Statewide Reusable Bag Ordinances – *Heather Trim (Zero Waste Washington)*
  - Recommendations Review
  - Wrap Up and Next Steps
- [Meeting Minutes](#)
- [Meeting Presentation](#)

➤ **Meeting 7**

- **Date:** October 26, 2018
- **Meeting Topic:** Recycling Systems and New Technologies
- **Agenda and Presenters:**
  - Welcome and Introduction
  - Technologies: Renewlogy & Chemical Recycling – *Priyanka Bakaya (Renewlogy)*
  - Recycling Systems: Oregon’s Beverage Recycling Cooperative & BottleDrop Program - *Cherilyn Bertges (OBRC)*
  - October 26 Recommendation Discussion
  - Recommendations Review
  - Wrap Up and Next Steps

- [Meeting Minutes](#)
- [Meeting Presentation](#)

➤ **Meeting 8**

- **Date:** November 15, 2018
- **Meeting Topic:** Creating Demand & Recommendation Chart Review
- **Agenda and Presenters:**
  - Welcome and Introduction
  - Creating Demand for Recycled Content: Target and the Demand Champions – *Kim Carswell (Target)*
  - Recommendations and Action Items Review
  - Wrap up and Next Steps
- [Meeting Minutes](#)
- [Meeting Presentation](#)

➤ **Meeting 9**

- **Date:** December 14, 2018
- **Meeting Topic:** Final Report Review
- **Agenda and Presenters:**
  - Welcome and Introduction
  - Report Feedback
  - Top Priorities for Achieving Responsible Recycling
  - Implementing Parties
  - Transmittal Process
  - Wrap Up and Next Steps
- [Meeting Minutes](#)
- [Meeting Presentation](#)

*“Do the best you can until you know better. Then **when you know better, do better.**”*  
- Maya Angelou.

## Appendix F: Seattle Solid Waste Advisory Committee Letter

---



Date: March 6, 2019

Mami Hara  
CEO/General Manager of Seattle Public Utilities  
700 5<sup>th</sup> Ave  
P.O. Box 34018  
Seattle, WA 98124-4018

General Manager Hara,

The Seattle Public Utilities (SPU) Solid Waste Advisory Committee (SWAC) has received briefings and discussed responsible recycling and issues around the export of mixed plastics and contaminated plastic bags and film over the last year. At the [May 2018 SWAC meeting](#), SWAC members unanimously agreed that removing plastic bags from curbside recycling would be a good policy for SPU to adopt.

At the February 2019 SWAC meeting, SWAC members reviewed the Responsible Recycling Task Force (RRTF) recommendation that plastic bags be removed from curbside collection due to their many negative impacts. We learned that loose plastic bags regularly get caught in the machinery when sorted at the Material Recovery Facility (MRF). Further, for the plastic bags that are successfully sorted, there is a lack of domestic markets for low-grade contaminated film. We advise against exporting low-grade plastic film to international markets, i.e. Southeast Asia, due to adverse environmental impacts, particularly the emission of greenhouse gases.

We support, as an alternative to curbside, retailer take-back of clean, dry bags so long as those bags can be responsibly recycled domestically. The plastic bag and film industry must lead the way through expanding their [Wrap Recycling Action Program \(WRAP\)](#) in the greater Seattle area, so that take-back locations are widely available and ensuring that the collected film is responsibly recycled. WRAP is a project of the American Chemistry Council that promotes retailer collection of a wide range of clean plastic films and bags.

In future SWAC meetings we will continue to review additional RRTF recommendations. We appreciate the work of the RRTF and commend SPU for its involvement.

-

Respectfully,

Dirk Wassink: Chair  
Alessandra Pistoia: Vice Chair

## Appendix G: Seattle Public Utilities Response Letter to SWAC

---



March 29, 2019

Dirk Wassink, Chair  
Alessandra Pistoia, Vice Chair  
Seattle Public Utilities Solid Waste Advisory Committee  
Hand Delivered by Sheryl Shapiro

Dear Mr. Wassink and Ms. Pistoia:

Thank you for your March 6, 2019 letter concerning Seattle Public Utilities' approach to responsible recycling and issues surrounding the export of mixed plastics and contaminated plastic bags and film. I appreciate that the Solid Waste Advisory Committee (SWAC) members have unanimously agreed to support the removal of plastic bags from Seattle's curbside recycling mix. I too support this recommendation that came directly from the thoughtful work of the Responsible Recycling Task Force (RRTF), whose recommendations were published in their January 10, 2019 report.

As the RRTF Report indicates, plastic bags and film impede our ability to successfully recycle other materials. Removing plastic bags and film from the mix of materials run through our local Material Recovery Facility (MRF) will have an immediate positive impact on our ability to recycle responsibly. SPU staff and I will aim for the removal of plastic bags and film from the curbside collection mix in Q1 2020. As part of our planning we will look to SWAC to provide suggestions on how to best expand drop-off collection options for plastic bags and film, such as the Wrap Recycling Action Program that you refer to in your letter. We will also need to roll-out an education program to inform customers regarding the change and will welcome your input.

As you review additional recommendations contained in the RRTF Report, I welcome your ideas and feedback on what SPU should pursue and best implementation approaches. You can always reach me directly, or work with Sheryl Shapiro or Segoo Jackson, the Solid Waste Line of Business SWAC liaisons.

I look forward to working with you all on ways we can more responsibly recycle and even better, prevent waste.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Mami Hara'.

Mami Hara, General Manager/CEO  
Seattle Public Utilities

## Attachment 1: 2018 Report on Seattle Bag Ban Compliance

---



# MEMORANDUM

**DATE:** July 1, 2018  
**TO:** Seattle City Council  
**FROM:** Mami Hara, General Manager & CEO – Seattle Public Utilities (SPU)  
**RE:** 2018 Report on Seattle Bag Ban Compliance

---

## **Background**

The Seattle City Council in 2011 passed [Ordinance 123775](#), which banned retailers from providing single-use plastic and bio-degradable carryout bags. In 2016, the Council approved [Ordinance 125165](#), making several revisions to Seattle’s bag regulations, including requiring compostable bags be properly labeled and tinted either green or brown, disallowing the distribution of non-compostable plastic bags that are tinted green or brown, and creating an annual bag ban reporting requirement to Council. These ordinances together make up [SMC 21.36.100: Single-use Plastic and Recyclable Paper Carryout Bags](#), presented in *Appendix A* for reference. Refer to *Appendix B* for a summary of the bag ban policy components and their intended outcomes. This memorandum was prepared in compliance with the annual bag ban reporting requirement.

Seattle’s responsibility for addressing single-use plastic carryout bags is further emphasized by Seattle City Council in [Resolution 30990](#), which: (1) reaffirmed the City’s 60% recycling goal and set a longer-term goal of 70% recycling along with targets for waste reduction, and (2) called for studies on how to reduce Seattleites’ use of hard-to-recycle materials, many of them plastics, and specifically required SPU to propose strategies (including bans) to discourage the use of disposable plastic carryout bags.<sup>1</sup>

Seattle’s bag ban ordinances were implemented primarily to address concerns that the production, use, and disposal of plastic carryout bags have significant adverse impacts on the environment, health, safety, and welfare of Seattle residents.<sup>2</sup> Key considerations include:

- Conserving energy and natural resources
- Reducing waste and controlling litter throughout the city
- Reducing marine litter and pollution
- Reducing solid waste disposal costs

## **Overview of Annual Reporting Requirements**

As part of the annual reporting requirements, SPU must evaluate at a minimum:

- a) the waste and litter reduction benefits of the City’s bag ban program,
- b) strategies to increase bag ban compliance in all stores,
- c) the effectiveness of this ordinance in reducing the number of non-compostable bags contaminating the waste stream, and
- d) strategies to address the impacts of loose plastic bags on curbside recycling

Findings and recommendations are due to the City Council no later than July 1 each year.

This memorandum serves as SPU’s 2018 fulfillment of this reporting requirement to Council. Action items identified as “next steps” in the 2016 and 2017 reports are summarized in *Appendix C* along with their status.

**Summary of Findings and Recommended Next Steps**

To prepare this report, SPU and a team of Evans School Graduate Consultants and Cascadia Consulting Group reviewed relevant literature, interviewed subject matter and industry experts, and surveyed 177 Seattle retail businesses, including convenience stores and grocers. Compliance sampling was more extensive than in the past thanks to the Evans School Graduate Consultants and provided more robust and accurate data.

The following are key findings and recommended next steps for SPU:

Key Findings	Recommended Next Steps
<b>Waste &amp; Litter Reduction Benefits</b>	
Litter impacts of the bag ban are difficult to quantify and studies to capture this data are cost-prohibitive.	Explore integrating Zero Waste Washington’s new litter assessment protocol into existing litter-related programs, using information collected from Seattle clean-ups to establish a baseline plastic bag litter assessment.
<b>Strategies to Increase Bag Ban Compliance</b>	
<p>SPU consultants observed an overall compliance rate of 82% (146 out of 177), a 67% increase over the rate observed in 2017 (33 out of 49), and a 64% increase over 2016 (16 out of 25).</p> <p>Compliance rates among sampled convenience stores were increased to 71% in 2017 (50 out of 70) from the prior year compliance rates of 33% (3 out of 9).</p> <p>Survey results suggest <u>non</u>-compliance is driven primarily by lack of awareness, customer preference for plastic bags, and language/cultural barriers.</p>	<p>Continue bag ban site visits this year, including culturally competent and in-language bag ban outreach and communications.</p> <p>Identify opportunities to incorporate environmental and waste prevention messaging into bag ban outreach and communications that are oriented to customers, to supplement information to businesses. Opportunities might include updated bag ban direct mailings and engaging directly with customers. Some businesses report non-compliance is the result of customer demand for plastic carryout bags.</p>
<b>Effectiveness in Reducing Non-Compostable Bags Contaminating Waste Stream</b>	
Stores appear to have shifted away from green tinted plastic bags, as required by ordinance, as they were observed at less than 10% of surveyed grocery stores (6 of 63).	Continue to incorporate the bag tinting requirements into grocery outreach in 2018 and provide technical assistance to those stores observed using non-compliant tinted bags.
<b>Strategies to Address Impacts of Loose Plastic Bags on Curbside Recycling</b>	
Plastic bags and film collected via curbside collection programs contaminate otherwise valuable commodities, increasing labor and processing costs and creating safety risks. Plastic bags and film also have limited viable markets, most of which are in Southeast Asia where there are already significant environmental justice concerns around the handling of post-consumer plastics and the contribution to global marine plastic pollution.	<p>Continue to participate in regional recycling task forces, including the Responsible Recycling Task Force formed in response to China’s Operation Blue Skies (formerly National Sword), where contamination and market conditions are being addressed.</p> <p>Explore potential to remove plastic bags and film from the mix of materials accepted in the curbside recycling program and work to expand and promote retailer take-back programs like WRAP.</p>

Key Findings	Recommended Next Steps
	Explore updating the bag ban ordinance to remove the exemption for plastic carryout bags provided for takeout at restaurants. SPU would work closely with stakeholders to explore strategies.

### Sources of Bags in Seattle

Since the bag ban went into effect in 2012, plastic bags have entered Seattle’s waste stream primarily in three ways:

- (1) *Neighboring businesses outside of Seattle provide plastic carryout bags to customers.*  
While SPU continues to collaborate on waste prevention efforts with our neighbors at the city, county, and state level, we have little influence over whether these jurisdictions formally adopt plastic bag ordinances. As such, plastic bag waste/litter originating from outside of Seattle has not been directly reduced by Seattle’s bag ban. The map included in *Appendix D* illustrates which neighboring cities have plastic bag regulations in place.
- (2) *Seattle restaurants provide take-out food in plastic carryout bags to customers.*  
Seattle’s bag ban currently permits restaurants to provide customers with plastic carryout bags for takeout orders. With the increase in takeout orders and third-party delivery services like Uber Eats, Grubhub, and Caviar, future SPU studies might focus on estimating the number of Seattle restaurants that provide plastic takeout bags to their customers. If a large percentage of the plastic bags in Seattle’s waste stream is determined to have originated from restaurants, SPU might consider following the lead of jurisdictions like [Alameda County](#) where their plastic bag ban has been extended to include restaurants and third-party delivery services (summarized in *Appendix E*).
- (3) *Non-compliant Seattle retail stores offer plastic carryout bags to customers.*  
Estimated non-compliance rates in the retail sector based on a sample of 177 Seattle businesses across all seven council districts is summarized below.

### Evaluation

#### Methodology

SPU worked with two consulting teams to collect data on bag use among Seattle retail businesses:

##### *Evans School Graduate Consultants*

University of Washington [graduate consultants](#) from the Evans School of Public Policy & Governance (Yi Cao, Nora Haider, Carson Hornsby, and Angela Pietschmann) conducted in-person survey field work of 70 Seattle **convenience** stores – 10 from each council district. The team observed bag use at each location and inquired of staff to identify bag ban perceptions and compliance barriers. Convenience stores were the focus of this team’s work due to low compliance rates observed in 2017 survey field work.

##### *Cascadia Consulting Group*

Cascadia [outreach consultants](#) visited 107 stores across Seattle to collect data on bag usage, identify compliance barriers, and provide businesses with technical assistance. Surveyed retail sectors included: **large grocery, medium grocery, ethnic grocery and produce stores, large retail, and small retail.**

The number of retailers visited in each sector is included in *Table 1* below.

**Table 1: Sample Sizes by Retail Sector**

Retail Sector	Sample Size
Convenience Stores	70
Large Grocery	21
Medium Grocery	21
Ethnic Grocery & Produce Stores	21
Large Retail	21
Small Retail	23
<b>Totals</b>	<b>177</b>

**(a) Waste & Litter Reduction Benefits**

SPU has conducted periodic [composition studies](#) since 1988 to understand differences among the waste, recycling, and organic streams, evaluate potential for further recycling and composting opportunities, establish a baseline for measurement over time, and inform program improvements. *Table 2* summarizes the residential composition study reporting schedule and definition of the categories used in the waste, recycling, and organics composition study reports to capture plastic bags in each of these streams.

**Table 2: SPU Residential Composition Study Reporting Schedule and Definitions**

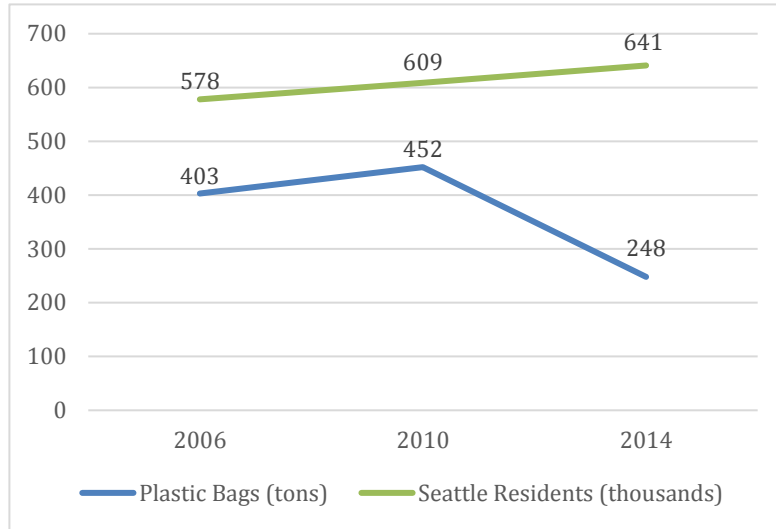
Stream	Reporting Schedule	Last Report	Next Report	Plastic Bag Category	Description
Waste (Garbage)	4 years	2014	2018	Clean Shopping and Dry Cleaner Bags	Labeled grocery, merchandise, dry cleaner, and newspaper polyethylene film bags that were not contaminated with food, liquid or grit during use. <sup>3</sup>
Recycle	5 years	2015	2020	Plastic Bags and Packaging	Clean plastic retail, grocery, garbage, newspaper, drycleaner bags, and plastic shrink-wrap. Excludes all food and freezer bags, bags that are soiled or contain other items (i.e. paper advertisement, cosmetic samples, computer disks), and plastic kitchen wrap. Bags with non-plastic handles (e.g. string) are also excluded. <sup>4</sup>
Organics	4 years	2012	2016*	Non-Compostable Film	Bags not approved by Cedar Grove and other film. Includes all merchandise and take-out bags. <sup>5</sup>

\*The 2016 Organics Stream Composition Study Report is still being finalized and has not yet been published.

Based on the results of the [2014 Residential Waste Stream Composition Study](#), plastic bags in the residential waste stream declined by 45% from 2010 to 2014 (452 tons to 248 tons), while Seattle’s population increased by 5% (*Figure 1*). *Appendix F* presents this data disaggregated into single-family and multifamily rates.



**Figure 1: Plastic Bags in Disposed Stream**



The litter reduction benefits of Seattle’s bag ban have been difficult to quantify due to the cost of conducting formal litter assessments. The estimated cost of a modest litter study is approximately \$50,000; the estimated costs of a comprehensive litter waste characterization study is approximately \$100,000-\$150,000.<sup>6</sup> However, we can assume when fewer plastic carryout bags are provided to customers, fewer bags become litter, just as fewer end up in the garbage. Benefits include less marine debris, fewer bags clogging storm drains, and fewer bags to clean up through hand-picking and street cleaning. The few cities that have conducted litter studies pre- and post-bag ban ordinance show significant bag litter reduction results. *Table 3* below summarizes one city and one county for reference.

**Table 3: Summary of Post-Ordinance Reduction in Plastic Bag Litter**

Location	Reduction in Bag Litter Post-Ordinance		
	Storm Drains	Creeks	City Streets
San Jose, CA <sup>7</sup>	-89%	-60%	-59%
Alameda County, CA <sup>8</sup>	-44%	N/A	N/A

**Recommended Next Steps:** Zero Waste Washington and Washington State Department of Ecology are in the process of developing and piloting a comprehensive litter assessment protocol to provide a consistent and comparable measurement of litter composition throughout Washington State. Pending pilot results, SPU may find utility in integrating this protocol into existing litter-related programs or using information collected from Seattle clean-ups to establish a baseline plastic bag litter assessment.

**(b) Strategies to Increase Bag Ban Compliance**

Summaries of the bag ban compliance rates observed during 2016, 2017, and 2018 survey field work are provided in *Table 4* below.

Compliance is defined as follows:

- **Compliant (C):** does not use plastic bags and charges at least \$0.05 for large paper bags.
- **Partially Compliant (PC):** does not use plastic bags, but also does not charge the required \$0.05 for large paper bags.
- **Non-Compliant (NC):** uses plastic bags.

Sample sizes nearly doubled between 2016 and 2017 (25 to 49), and more than tripled from 2017 to 2018 (49 to 177). Observed compliance rates continued to increase from 64% in 2016, to 67% in 2017, and 82% in 2018.

Compliance rates were distributed fairly evenly across the City. 2017 survey results indicate that convenience stores have the lowest compliance rates among retail sectors at 33%. After increasing the sample size from 9 convenience stores in 2017 to 70 convenience stores (10 per council district) in 2018, a compliance rate of 71% was observed. Given the larger sample size and broader geographic distribution of samples for 2018, the 2018 results are believed to more closely approximate actual compliance rates.

Survey results suggest the following compliance barriers among **Non-Compliant** interviewees (n=25):

- **Awareness:** 44% of Non-Compliant interviewees reported they are unaware of the ban or have an incomplete and/or incorrect understanding of the ban (12).
- **Customer Preference:** 44% of Non-Compliant interviewees cited their customers' preference for plastic bags as a primary reason for non-compliance (12).
- **Language and Cultural Barriers:** 33% of Non-Compliant interviewees speak English as a second language, which can lead to communication difficulties and confusion around steps for compliance (9).

Survey respondents are not necessarily the decision-makers for the businesses. Employees, managers, and owners were interviewed based on their availability and willingness to participate. As such, survey responses may not be reflective of the primary decision-maker at each location.

**Table 4: 2016-2018 Summary of Compliance by Retail Sector**

Retail Sector	2016						2017						2018					
	C	PC	NC	C %	PC %	NC %	C	PC	NC	C %	PC %	NC %	C	PC	NC	C %	PC %	NC %
Convenience	4	0	3	57%	0%	43%	3	1	5	33%	11%	56%	50	6	14	71%	9%	20%
Pharmacy	5	1	0	83%	17%	0%	9	0	0	100%	0%	0%						
Grocery (general)	2	1	3	33%	17%	50%	11	2	4	65%	12%	24%	53	0	10	84%	0%	16%
Large Grocery							11	2	4	65%	12%	24%	21	0	0	100%	0%	0%
Medium Grocery													18	0	3	86%	0%	14%
Ethnic Grocery													14	0	7	67%	0%	33%
Apparel	5	0	1	83%	0%	17%	8	2	1	73%	18%	9%						
Large Retail													20	0	1	95%	0%	5%
Small Retail													23	0	0	100%	0%	0%
Other							2	1	0	67%	33%	0%						
<b>Totals</b>	<b>16</b>	<b>2</b>	<b>7</b>	<b>64%</b>	<b>8%</b>	<b>28%</b>	<b>33</b>	<b>6</b>	<b>10</b>	<b>67%</b>	<b>12%</b>	<b>20%</b>	<b>146</b>	<b>6</b>	<b>25</b>	<b>82%</b>	<b>3%</b>	<b>14%</b>

Compliant
  Partially Compliant
  Non-Compliant

***[Page Intentionally Left Blank]***

To address these primary compliance barriers, SPU plans to pursue the following steps:

- **Awareness:** In addition to the 177 retailers already visited in 2018, Cascadia outreach consultants have 75 additional bag ban visits planned through the end of the 2018. Cascadia provided technical assistance to all non-compliant businesses and plans follow-up visits to ensure full compliance at these locations. SPU continues to provide technical assistance to retail businesses on the bag ban as part of normal geographic outreach and inspections. A portion of these site visits originate from citizens reporting plastic bag use at retailers and is looking into further promoting this public reporting channel SPU is considering sending an updated bag ban direct mailing as a reminder of bag rules and other recommended best practices.
- **Customer Preference:** SPU is developing new methods for engaging directly with consumers on the bag ban. An example is incorporating “Bring Your Own Bag” messaging into outreach materials. SPU is also considering pilot programs that would help businesses become compliant by providing them with a small stock of reusable bags to offer their customers in lieu of plastic carryout bags.
- **Language and Cultural Barriers:** SPU contracts with community partners like ECOSS, Tilth Alliance, and Cascadia Consulting Group, who have team members that provide culturally competent, in-language outreach to Seattle businesses. SPU will continue to support these outreach endeavors throughout 2018.

***(c) Effectiveness in Reducing Non-Compostable Bags Contaminating the Compost Stream***

An organics composition study has not been conducted since the bag tinting ordinance went into effect in 2017. The last study was conducted in 2016 and results are still being finalized (report has not yet been released). The next anticipated study is scheduled for 2020. However, a 90% compliance rate with the bag tinting requirements was observed among the 63 groceries surveyed in 2018. This sample size is nearly four times larger than the 2017 sample. This high compliance rate is an encouraging indicator that the number of tinted plastic bags in Seattle has declined, and with it, the likelihood for compost contamination.

Of the six businesses observed using Non-Compliant green tinted plastic bags:

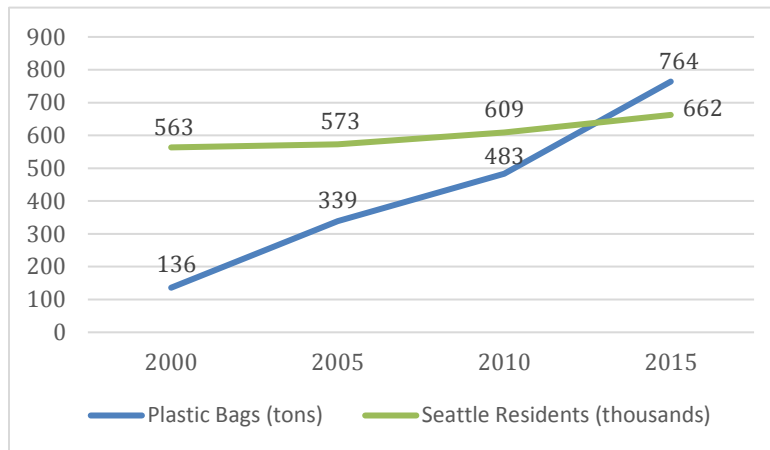
- Two businesses use green tinted thick plastic carryout bags (1 ethnic grocery, 1 medium grocery). 1 of these bags had “biodegradable” printed on it (medium grocery).
- Four businesses use thin green tinted produce bags (3 large grocery, 1 medium grocery).

SPU will continue to incorporate the bag tinting requirements into grocery outreach in 2018 and provide technical assistance to those stores observed using Non-Compliant tinted bags.

***(d) Strategies to Address Impacts of Loose Plastic Bags in Curbside Recycling***

The [2015 Residential Recycling Stream Composition Study](#) includes plastic carryout bags in the “plastic bags and packaging” category, which consists of: clean plastic retail, grocery, garbage, newspaper, and drycleaner bags, and plastic shrink-wrap. This category excludes: all food and freezer bags, bags that are soiled or contain other items (i.e. paper advertisement, cosmetic samples, and computer disks), plastic kitchen wrap, and bags with non-plastic handles (e.g. string). As shown in *Figure 2* below, Seattle saw a nearly 60% increase in plastic bags and packaging in the recycling stream from 2010 to 2015 (483 tons to 764 tons). Given that this category includes several items that are not plastic retail and grocery carryout bags covered by the ordinance, the results in *Figure 2* cannot be interpreted as a direct uptick in plastic retail and grocery carryout bags in the recycling stream. *Appendix F* presents this data broken out by single-family and multifamily rates.

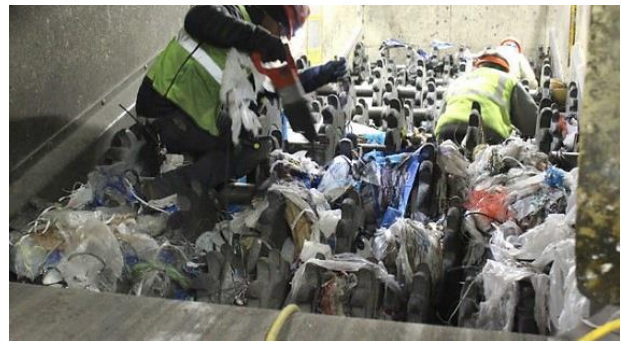
**Figure 2: Plastic Bags & Packaging in Recycling Stream**



Plastic bags and film have been accepted in Seattle’s curbside recycling program since 2009 with the instruction to “bag your bags,” which involves collecting all bags and film into one bag that is tied-off and placing in the commingled recycling cart. However, plastic bags and film have emerged as the most costly and pervasive problem items at Material Recovery Facilities (MRF). Plastic bags and film cause the following issues:

- *Sorting Effectiveness and Contamination* - Even when bags are properly bundled and placed in curbside recycling carts, MRF operators are only able to remove about 25% of the plastic bags during the pre-sort process. The remaining bags consistently contaminate other baled commodities or obstruct processing equipment like sorting screens. Sorting screens are designed to let 3-dimensional objects fall through the machine’s discs while flat objects (like cardboard) continue through the sorting process. Plastic bags and film wrap around these discs, reducing their ability to sort recyclables effectively and increasing contamination levels over the course of the day.
- *Processing Shutdowns and Safety Hazards* - Processing lines are shut down for an hour twice each day so that workers can climb into the machinery and manually cut the film out, which is both hazardous and time intensive (Figure 3). While plastic bags and film make up roughly 0.2% of incoming material by weight (about one bale per day), approximately 20-30% of recycling center labor is attributed to dealing with these materials, costing \$700-\$1,000 per ton to remove this material.<sup>9</sup>

**Figure 3: Recycling facility workers cut plastic bags and film out of sorting screens\***



Plastic bags and film also present several concerns as a marketable commodity, including:

- *Low Quality Commodity with Limited Market Demand* - Plastic bags collected through curbside recycling are highly contaminated and the bales of film created from this stream at the MRFs typically do not meet domestic quality standards. As such, the film that is successfully sorted at the MRF has historically only been suitable for export markets in China and Southeast Asia. Even within these markets, oversupply and low cost of virgin plastic contributes to the low value of film collected at MRFs as a commodity.

- *China Operation Blue Skies (formerly National Sword) Policy* - Limited market demand for recyclable plastic bags and film has been further exacerbated by China's announcement of their Operation Blue Skies Policy, effective January 1, 2018. In 2016, China processed half of the world's exports of plastic, paper, and metal waste, but the new policy now limits imports in three key ways<sup>10</sup>:
  1. Bans the import of 24 recyclable commodities, including unsorted mixed paper and mixed plastics.
  2. Reduces contamination threshold to 0.5% for materials not covered by the ban (typical contamination standards for Seattle MRFs are 3-5%), effectively disqualifying mixed recyclable commodities from sale to China. Local MRFs have slowed down their processing by 25-30% and increased headcount 15% to reduce contamination.
  3. Suspends approval of all scrap paper import permits

**Figure 4: Still frame from Jiu-Liang Wang's "Plastic China" documentary**



China's Operation Blue Skies Policy was implemented to address concerns around: the poor quality of imported recyclable materials, severe environmental and human health impacts caused by poor recycling infrastructure, and China's desire to develop its own domestic markets for recyclable materials.<sup>11</sup> Jiu-Liang Wang's 2016 film, "Plastic China," is credited with putting an international spotlight on these issues as it documented the struggle of an impoverished family to survive by living and working in a plastic waste household-recycling workshop (Figure 4).

- *Environmental Justice Concerns* - Before the Operation Blue Skies Policy went into effect, Seattle's primary recycling processor exported nearly 100% of its recyclable materials (not including cardboard and metal) to China. With China essentially cutting off the import of recycled commodities, the U.S. is now exporting these materials to other countries in Southeast Asia. Countries such as Malaysia, Thailand, Vietnam, and India have increased their imports of recycled material by over 50%.<sup>11</sup> Many of these countries have less-developed pollution control measures than China and are already some of the biggest contributors of plastic waste to international waters.<sup>12</sup>
- *Global Marine Plastic Pollution* - The EPA estimates that about 80% of marine debris originates as land-based waste, intentionally or unintentionally disposed of into the marine environment. Plastic debris presents particular concerns due to its ability to persist in the marine environment and "fragment into progressively smaller and more numerous particles without substantial chemical degradation."<sup>13</sup> A single plastic bag can fragment into up to 420,644 one mm<sup>2</sup> pieces of low-density polyethylene (LDPE #4).<sup>14</sup>

Microplastic fragments (less than 5mm in diameter) make up approximately 90% of the plastic in the marine environment and are frequently ingested by birds, fish, and other marine wildlife. Plastics in general threaten marine wildlife when they become entangled in items like plastic bags and six-pack rings or when plastics are ingested and block their intestines. Additionally, the bioaccumulation of plastic chemicals in these animals threaten the entire food chain. Floating debris consists mostly of polyethylene and polypropylene due to the prevalence of use and buoyancy.<sup>14</sup>

In summary, plastic bags and film collected in the curbside recycling program:

- severely contaminate otherwise valuable commodities;
- increase labor, processing costs, and safety hazards at MRFs;
- have limited viable markets, most of which are in Southeast Asia where there are already significant environmental justice concerns around the processing of these commodities; and
- contribute to global marine plastic pollution if improperly handled by importing countries.

The Washington State Department of Ecology (DOE) released a report in October 2016 entitled: [Optimizing the Commingled Residential Curbside Recycling Systems in Northwest Washington](#). This report was based on the findings of a workgroup formed in November 2012, comprised of government recycling staff, solid waste and recycling service providers, and recyclable materials processors who met monthly and provided their perspectives on the issues they face within each recyclable material category. The report identifies best practices for addressing the plastic bag and film issues noted above, including:

- Prioritize the collection of recyclables that:
  - have viable markets
  - MRFs can sort effectively
  - generate revenue
- Promote plastic bag and film collection at retailers already participating in film take-back programs.
- Consider removing plastic bags from accepted commingled curbside recycling materials list.

These best practices are further emphasized by industry leaders including the American Chemistry Council, which supports the [Wrap Recycling Action Program \(WRAP\)](#). WRAP establishes drop-off points at participating retail partners to collect bags and film so that they maintain a high enough quality to successfully sell domestically. Nina Bellucci Butler (CEO of More Recycling) is also a public advocate for developing viable [domestic end markets](#) for materials made from recycled plastic film to increase market demand to match supply. More Recycling is a research and consulting company that serves as a liaison between industry, public agencies, and NGO's, prioritizing accurate information and neutrality in the marketplace.

Given the concerns and best practices highlighted above, SPU is involved in or considering the following next steps:

- *Partner in discussion with neighboring jurisdictions around the state* - SPU is currently participating in several regional recycling task forces and workgroups that have been formed throughout the state in response to China's Operation Blue Skies Policy. These workgroups are collaborating on a coordinated message around contamination issues as well as materials that should be included/excluded in commingled recycling streams. One point of common agreement among these workgroups is that plastic bags and film are unsuitable for curbside collection. SPU will continue to have these discussions and participate in collaborative problem-solving efforts.
- *Consider removing plastic bags and film from the mix of materials accepted in Seattle's curbside recycling program* - The processing, contamination, marine pollution, and market concerns highlighted in detail above indicate a need to remove plastic bags and film as acceptable items in Seattle's commingled recycling program. SPU will take this under consideration and potentially pursue the appropriate steps towards making this change.



- *Promote existing retailer plastic bag and film take-back programs – As an alternative to collecting plastic bags and film curbside, SPU will promote existing retailer take-back programs like WRAP. Retailer take-back provides less contaminated plastic bags and film material for more successful recycling through domestic markets and typically accepts a wider range of film plastics that are inappropriate for curbside collection. Retailer take-back of plastic bags is promoted by the Sustainable Packaging Coalition’s *How-to-Recycle* label system. SPU will work with the WRAP program, grocery and retail associations, local retailers, and other jurisdictions to increase the number of retailer locations providing take-back opportunities.*

**Figure 5: Example of Local Retailer Plastic Bag Take-back Location**



- *Consider extending plastic bag ban to restaurants and third-party delivery services - As noted previously in this memo, Seattle’s bag ban currently permits restaurants to provide customers with plastic carryout bags for takeout orders. With the increase in takeout orders and third-party delivery services like Uber Eats, Grubhub, and Caviar, SPU is considering following the lead of jurisdictions like Alameda County where the plastic bag ban has been extended to include restaurants (see *Appendix E* for overview of Alameda County ordinance). Survey respondents indicated that Seattle’s bag ban is confusing in part because different businesses are held to different standards: they feel it is “unfair” that some businesses (restaurants) can provide thin plastic carryout bags to customers while others can’t. By removing the exception for restaurants, SPU could apply the same rules across all businesses for consistency, simplicity, and fairness.*

**Figure 6: Amazon Shipping Envelop – example of labeling encouraging drop-off at take-back locations**



**Recommendations to Seattle City Council**

While SPU will be pursuing those actions listed above, SPU has no recommendations for further Council action regarding the bag ban program, pass-through charges, or other provisions to improve program effectiveness.

## **Appendix A: Seattle Municipal Code 21.36.100 - Single-use Plastic and Recyclable Paper Carryout Bags**




---

- A. No retail establishment in the City shall provide a single-use plastic carryout bag to any customer.
- B. No retail establishment in the City shall provide a paper carryout bag with a manufacturer's stated capacity of one-eighth barrel (882 cubic inches) or larger that is not a recyclable paper bag, and retail establishments shall collect a pass-through charge of not less than five cents for each recyclable paper carryout bag provided to customers. It shall be a violation of this Section 21.36.100 for any retail establishment to pay or otherwise reimburse a customer for any portion of the pass-through charge; provided that retail establishments may not collect a pass-through charge from anyone with a voucher or electronic benefits card issued under the Women, Infants and Children (WIC) or Temporary Assistance to Needy Families (TANF) support programs, or the federal Supplemental Nutrition Assistance Program (SNAP, also known as Basic Food), or the Washington State Food Assistance Program (FAP).
- C. Effective July 1, 2017, no retail establishment in the City shall use or provide polyethylene or other non-compostable plastic film bags tinted green or brown for customers to bag products in stores, as carryout bags, or for home delivery.
- D. Any film bags meeting the definition of compostable that retail establishments provide to customers for food or other products, such as vegetables bagged in stores prior to checkout, must be tinted green or brown and shall be clearly labeled "COMPOSTABLE," including language following the Federal Trade Commission's "Green Guides."
- E. No film bag that retail establishments provide to customers to bag products in stores, as carryout bags, or for home delivery may be labeled with the term "biodegradable," "degradable," "decomposable," or any similar terms, or in any way imply that the product will break down, fragment, biodegrade, or decompose in a landfill or other environment.
- F. All retail establishments shall indicate on the customer transaction receipt the number of recyclable paper carryout bags provided and the total amount of the pass-through charge.
- G. For purposes of this Section 21.36.100, the following definitions apply.
  - 1. "Carryout bag" means a bag that is provided by a retail establishment at the check stand, cash register, point of sale, or other point of departure to a customer for the purpose of transporting food or merchandise out of the establishment. Carryout bags do not include:
    - a. bags used by customers inside stores to package bulk items such as fruit, vegetables, nuts, grains, candy, greeting cards, or small hardware items, such as nails and bolts, or to contain or wrap frozen foods, meat or fish, whether prepackaged or not, or to contain or wrap flowers or potted plants, or other items where dampness may be a problem, or to contain unwrapped prepared foods or bakery goods, or to contain prescription drugs, or to safeguard public health and safety during the transportation of prepared take-out foods and prepared liquids intended for consumption away from the retail establishment; or
    - b. newspaper bags, door-hanger bags, laundry-dry cleaning bags, or bags sold in packages containing multiple bags intended for use as garbage, pet waste, or yard waste bags.

2. "Compostable" means that the product completely breaks down into a stable product due to the action of microorganisms in a controlled, aerobic commercial process that results in a material safe and desirable as a soil amendment meeting the compost quality standards found under WAC 173-350-220 for metals, physical parameters, pathogens, manufactured inert material, and other testing parameters set by the local Health Department, has been found to degrade satisfactorily at the composting facility receiving the material, meets standard specification ASTM D6400, and has been certified as compostable by the Biodegradable Products Institute or similar national or international certification authority.
3. "Pass-through charge" means a charge to be collected by retailers from their customers when providing recyclable paper bags and retained by retailers to offset the cost of bags and other costs related to the pass-through charge.
4. "Recyclable paper bag" means a paper carryout bag that has a manufacturer's stated capacity of one-eighth barrel (882 cubic inches) or larger and meets the following requirements:
  - a. Contains a minimum average of 40 percent post-consumer recycled materials, and
  - b. Displays the minimum percent of post-consumer content on the outside of the bag.
5. "Retail establishment" means any person, corporation, partnership, business venture, public sports or entertainment facilities, government agency, street vendor or vendor at public events or festivals, or organizations that sell or provide merchandise, goods, or materials including, without limitation, clothing, food, beverages, household goods, or personal items of any kind directly to a customer. Examples include but are not limited to department stores, clothing stores, jewelry stores, grocery stores, pharmacies, home improvement stores, liquor stores, convenience stores, gas stations, restaurants, food vending trucks, farmers markets, and temporary vendors of food and merchandise at street fairs and festivals. Food banks and other food assistance programs are not considered to be retail establishments for the purposes of this Section 21.36.100.
6. "Single-use plastic carryout bag" means any carryout bag made from plastic or any material marketed or labeled as "biodegradable" or "compostable" that is neither intended nor suitable for continuous reuse as a carryout bag or that is less than 2.25 mils thick.

*(Ord. 125165, § 1, 2016; Ord. 123775, § 1, 2011)*

**Appendix B: Summary of Bag Ban Policy & Intended Outcomes**

Bag Type	Summary of Policy	Intended Outcome(s)
 <p><b>Plastic</b></p>	Retailers may not provide customers with thin plastic carryout bags (pictured at left).	Reduce waste, conserve energy and resources, prevent contamination, reduce litter and pollution.
	Non-compostable plastic bags may not be tinted green or brown or labeled as “biodegradable,” “degradable,” “decomposable,” etc.	Avoid confusion with compostable plastic bags and prevent contamination.
	Retailers may provide reusable plastic carryout bags (≥2.25 mil thick).	Plastic bags ≥2.25 mil thick are considered reusable and typically used when paper is not a good alternative or readily available.
	Restaurants may provide plastic carryout bags to customers for takeout food.	Restaurants may provide plastic carryout bags to their customers for prepared foods to prevent leaks or spills.
 <p><b>Paper</b></p>	Retailers providing large paper carryout bags (≥ 1/8 barrel with a flat bottom ≥ 60 in <sup>2</sup> – pictured at left) must collect a pass-through charge of ≥ 5¢ per bag. Number of bags and total cost of paper bags must be listed on customer receipt.	Charging for bags and listing on customer receipt reminds customers to bring reusable bags. Requiring all retailers to charge for bags levels the playing field among retailers so they do not “eat” the cost of the bags.
	Large paper bags must contain a minimum average of 40% post-consumer recycled materials and display the minimum percent of post-consumer content on the outside of the bag.	Support demand for post-consumer recycled content as a preferred alternative to using raw materials.
	Retailers may not collect a pass-through charge from anyone with a voucher or electronic benefits card issued under the Women, Infants and Children (WIC) or Temporary Assistance to Needy Families (TANF) support programs, or the federal Supplemental Nutrition Assistance Program (SNAP, also known as Basic Food), or the Washington State Food Assistance Program (FAP).	Avoid disproportionately burdening low-income customers with charge.
 <p><b>Compostable Plastic</b></p>	Retailers may provide customers with compostable plastic produce or bulk food bags (if tinted green or brown and labeled “compostable”).	Avoid confusion with non-compostable plastic bags and prevent contamination.
	Retailers may not provide customers with compostable plastic carryout bags.	Compostable bags are specifically designed as liners for kitchen food waste containers and carts. Customers receiving compostable bags as shopping bags are more likely to recycle them with regular plastic bags which can prevent successful remanufacture of the plastic.

**Appendix C: 2016-2017 Summary of Next Steps and Current Status**

**2016 Summary of Next Steps**

Action Item	Current Status
<p><b>Removing the five-cent paper bag charge sunset date.</b> SPU will be proposing revisions to the bag ban ordinance to remove the end date for the five-cent charge to customers for large paper bags. This was identified as very important for businesses to cover their increased bag costs and will also continue to serve as a reminder to citizens to bring their reusable bags when shopping.</p>	<p>Completed. Ordinance Number 125165, passed October 3, 2016. Effective July 1, 2017.</p>
<p><b>Limiting plastics contamination of food and yard waste.</b> SPU’s staff participate in the Washington Compost Contamination Work Group. Additionally, SPU will be proposing revisions to the bag ban ordinance that will include restricting green tinting to compostable bags only. This proposal will address the confusion and contamination that green tinted non-compostable bags cause.</p>	<p>Completed. Ordinance Number 125165, passed October 3, 2016. Effective July 1, 2017.</p>
<p><b>Addressing reusable bag cleanliness.</b> SPU will publicize the importance of regularly washing reusable bags.</p>	<p>KGW8 News Coverage:  <a href="https://www.kgw.com/article/life/wash-reusable-grocery-bags-says-seattle-official/283-287537756">https://www.kgw.com/article/life/wash-reusable-grocery-bags-says-seattle-official/283-287537756</a></p>
<p><b>Increasing bag ban compliance in small and independent grocery and convenience stores.</b> SPU is currently developing a renewed outreach strategy to target these businesses. Options being considered are a mass mailing to retail businesses that provide bags to the public and in person visits.</p>	<p>SPU sent a flyer to all grocery store, retail store, and convenience store sites (5,890) in the 1<sup>st</sup> quarter of 2017 about the new bag requirements and resources available from SPU.</p>
<p><b>Reducing loose plastic bag impacts in curbside recycling.</b> SPU will explore bringing the Wrap Recycling Action Program (WRAP) to Seattle and across Washington in collaboration with industry, retailers, and other governments to reduce the number of loose plastic bags in Seattle’s curbside collection. While the implementation of WRAP is explored, SPU will continue messaging to people that plastic bags must be bundled in a larger plastic bag if it is to be placed in curbside recycling.</p>	<p>WRAP agreed to bring more concerted efforts to expand and promote the program state-wide to Washington and Oregon but found retailer organizations generally disinterested. More targeted retailer expansion combined with state-wide campaigns planned for early 2018 were “put on hold” due to concerns about domestic market capacity for clean film from retailer collection programs. WRAP is focusing more on market development than program expansion.</p> <p>SPU continued messaging that plastic bags must be bundled and placed in a larger plastic bag before being placed in curbside. This effort has been ineffectual at addressing the</p>

Action Item	Current Status
	impact of plastic bags on Material Recovery Facilities and contamination of paper and other commodities. The resulting plastic film bales are too dirty for domestic markets and are currently shipped to markets in Southeast Asia.
<b>Encouraging work to make flexible packaging recyclable.</b> SPU is working through industry groups such as the Sustainable Packaging Coalition to encourage industry to make flexible packaging recyclable, to establish collection programs similar to WRAP for its collection, to develop equipment necessary to sort and process it for recycling, and to develop markets for the resulting materials.	SPU continues to engage with individual companies and industry groups exploring issues around collection, processing and markets for flexible packaging. This effort is incremental and exploratory in nature.

### 2017 Summary of Next Steps

Action Item	Current Status
<i>Waste &amp; Litter Reduction Benefits</i>	
Continue to look for examples of plastic bag ban related litter studies conducted elsewhere to consider their findings and potential for replication in Seattle. SPU will also consider collaborative efforts to document litter reduction strategies.	As documented in Section (a) of this memorandum, the litter reduction benefits of Seattle's bag ban remain difficult to quantify due to the cost prohibitive nature of conducting a formal litter assessment. SPU will consider integrating Zero Waste Washington's new litter assessment protocol into existing litter-related programs or utilizing information collected from Seattle clean-ups to establish a baseline plastic bag litter assessment.
Continue to have a separate category for plastic shopping bags in SPU's periodic residential waste composition study and consider further refinements to that category prior to the next scheduled study.	To be addressed as each composition study is contracted and designed.
<i>Strategies for Increasing Bag Ban Compliance Rates</i>	
Continue to use new ordinance requirements to refresh and relaunch Seattle bag requirements outreach and education.	SPU's bag requirements flyer has been revised and provided to stores during site visits.
Implement outreach, education, and enforcement strategy with focus on grocery stores beginning July 2017, continuing in 2018.	SPU staff continue to visit grocery stores to inspect, inform, and educate about bag requirements.
Develop and include in 2018 Bag Ban Update Report to Council strategy and materials for focus on convenience stores in late 2018, continuing in 2019.	Completed and documented in 2018 memorandum. Given the high compliance rates observed at 70 sampled convenience stores in 2018, SPU determined this retail sector does not need a dedicated outreach/inspection strategy outside of planned geographic outreach.

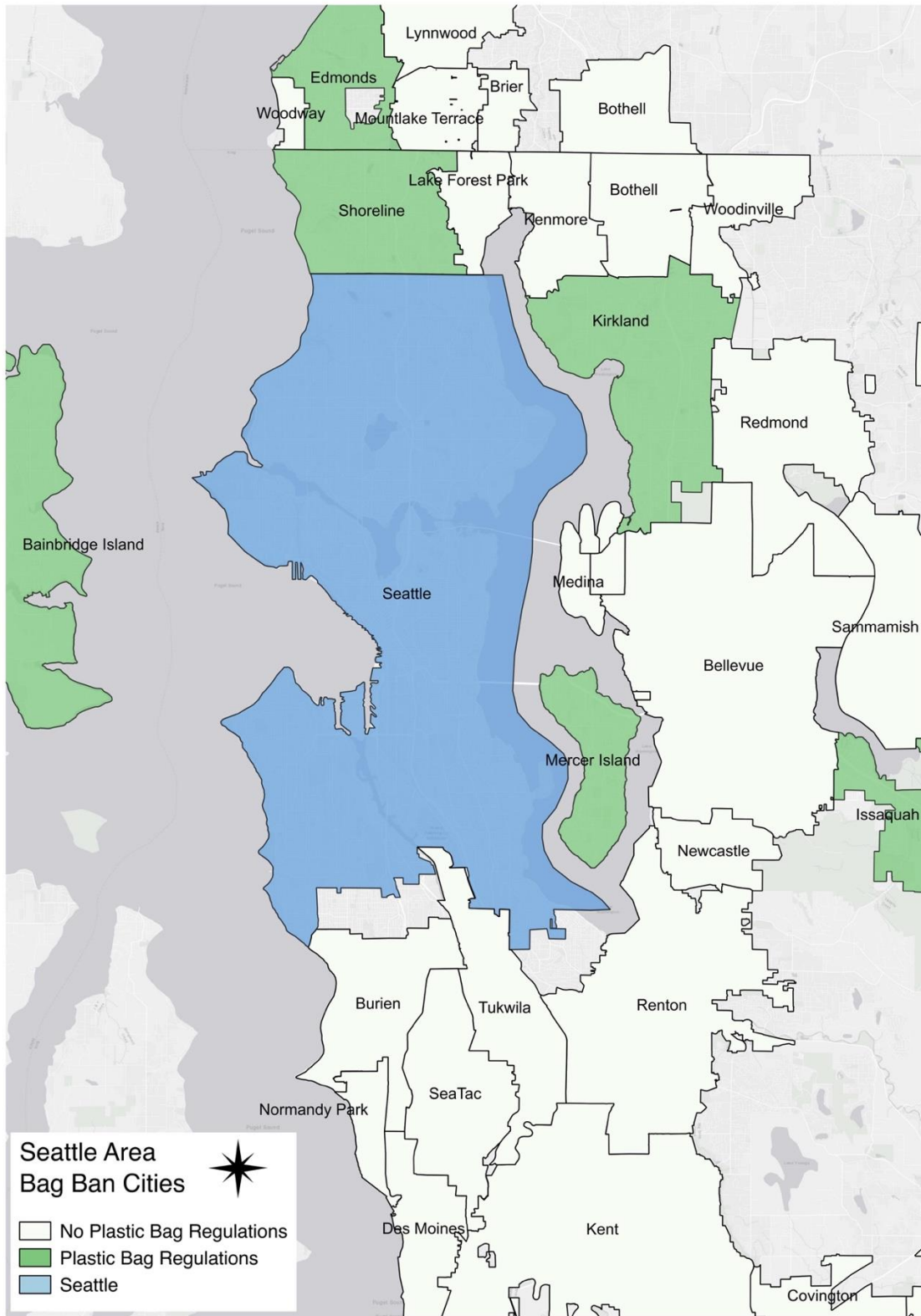
Action Item	Current Status
Document compliance through these efforts and through future periodic surveys and site visits by Evans School Student Consultants, if available.	Completed and documented in 2018 memorandum.
<i>Effectiveness of Ordinance in Reducing Plastic Bags Contaminating Waste Streams</i>	
Continue to work with the Washington Organics Contamination Reduction (WORC) Workgroup to address plastic film and other contamination issues.	In June 2017, WORC published <a href="#">The Washington State Organics Contamination Workgroup Report and Toolkit</a> addressing plastic film and other contamination issues. SPU continues to participate in regional work group meetings when convened.
Add categories to SPU’s future residential organics composition studies to include categories such as green tinted plastic bags containing food scraps, clear plastic bags containing food scraps, other plastic packaging containing uneaten food, and compostable bags. This will also assist SPU’s efforts to understand when food is wasted and how to prevent food waste.	To be addressed as each composition study is contracted and designed.
<i>Strategies for Addressing Impacts of Loose Plastic Bags in Curbside Recycling</i>	
Continue to emphasize that bags placed in recycling carts must be bagged.	As noted above, SPU has continued emphasizing “bagged bags” in our messaging, but it has been ineffectual at addressing the impact of plastic bags on Material Recovery Facilities and contamination of paper and other commodities. The resulting plastic film bales are too dirty for domestic markets and are currently shipped to markets in Southeast Asia.
Consider if revisions to categories used in future residential recycling composition studies are warranted. It may be useful to separately categorize bagged bags from single bags for instance.	To be addressed as each composition study is contracted and designed.
Continue to pursue expanded retailer bag take back programs. SPU and others in the region have begun discussions with the WRAP program and retailer organizations about expanding WRAP participation throughout Seattle and the region.	WRAP agreed to bring more concerted efforts to expand and promote the program state-wide to Washington and Oregon but little progress was made and adequate resources were not invested by the WRAP program. As a result, state-wide campaigns planned for early 2018 were canceled.
Explore what would be required for plastic bags from curbside collection to be processed domestically.	Bales of plastic bags and film collected from curbside recycling are too dirty for domestic markets and are currently exported to Southeast Asia. Plastic film wash facilities to clean the curbside bags could result in cleaner material, but that material would have to compete for limited markets with the very clean film collected through retailer collection

<b>Action Item</b>	<b>Current Status</b>
	programs. On top of the high costs and impacts of sorting at material recovery facilities, additional costs would be incurred for transport and washing at a film wash facility.



## Appendix D: Neighboring Cities with Bag Bans

Image Credit: Nora Haider, Evans School Graduate Consultant



## For Restaurants and Delivery Services

On November 1, 2017, the Reusable Bag Law for Alameda County expanded to include all eating establishments, which includes delivery services and ordering platforms. The requirements of the new law are as follows:



**1. No more single-use plastic bags.**

As of November 1, 2017, eating establishments (and their delivery services/providers) in Alameda County can no longer distribute single-use plastic bags.



**2. No charge for paper bags.**

Recycled content paper bags may be distributed for free. If your eating establishment only distributes compliant paper bags, no additional action is necessary.



**3. Protective plastic bags without handles are allowed.**

The law only applies to carryout bags, not to paper or plastic bags without handles that are used to protect food (such as around containers of soup or stew to prevent spilling).

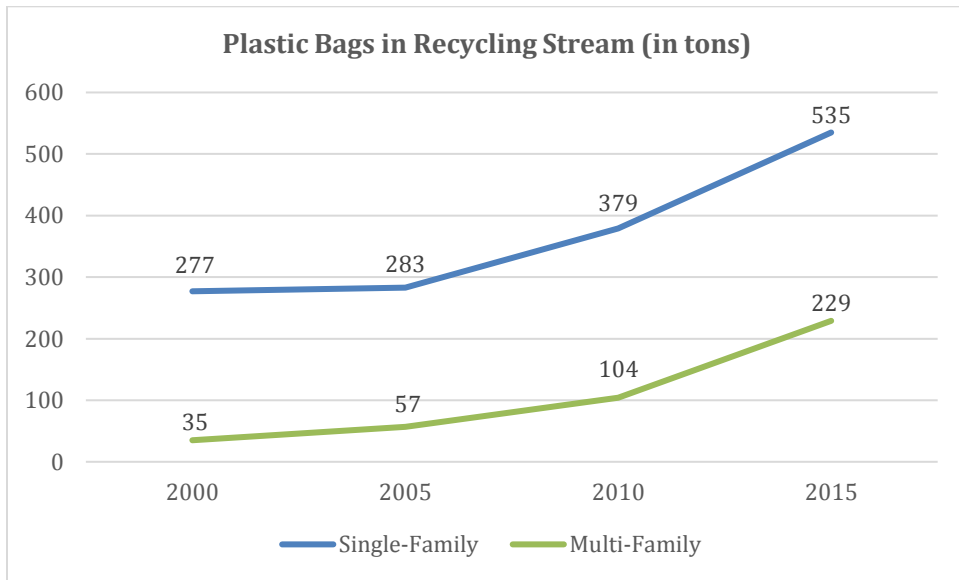


**4. Charge 10 cents for reusable bags.**

Compliant reusable bags (including thick, reusable plastic bags) may be distributed if at least ten cents is charged and itemized on the receipt. The eating establishment keeps the 10 cent charge, which is not subject to sales tax.

## Appendix F: Plastic Bags in Single-Family & Multifamily Waste and Recycling Streams

Figures below use numbers reported in SPU's waste and recycling composition studies from 2000 – 2015.



## References

---

<sup>1</sup> Zero Waste Resolution (30990)

<sup>2</sup> City of Seattle Ordinance Number 123775

<sup>3</sup> SPU 2014 Residential Waste Stream Composition Study Report

<sup>4</sup> SPU 2015 Residential Recycling Stream Composition Study Report

<sup>5</sup> SPU 2012 Organics Stream Composition Study: Year-End Report

<sup>6</sup> Chris Sommers (EOA, Inc.), Katie Kennedy (Cascadia Consulting Group)

<sup>7</sup> <https://www.mercurynews.com/2013/07/16/do-plastic-bag-bans-really-reduce-litter/>

<sup>8</sup> <http://www.stopwaste.org/resource/alameda-countywide-storm-drain-trash-monitoring-and-characterization-project>

<sup>9</sup> Washington State Department of Ecology Northwest Region Report: Optimizing the Commingled Residential Curbside Recycling Systems in Northwest Washington

<sup>10</sup> <https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Residential-recycling-services>

<sup>11</sup> <https://resource-recycling.com/recycling/2018/01/16/exports-displaced-china-finding-home/>

<sup>12</sup> <https://www.statista.com/chart/12211/the-countries-polluting-the-oceans-the-most/>

<sup>13</sup> <https://www.epa.gov/trash-free-waters/toxicological-threats-plastic>

<sup>14</sup> Personal communication Rachael Miller, Rozalia Project, Volvo Ocean Race Infographic May 2018 (not yet published.) Estimate calculated by the [Rozalia Project](#) based on the total surface area/dimensions of a large grocery bag. Handles(2): lh=101.4mm, wh=127; front and back panels(2): lfb=431.8mm, wfb=279.4mm; side panels(2): ls=431.8, ws=177.8mm. Total surface area =  $2(lhwh+lfbwfb+ls ws) = 420,644 \text{ mm}^2$

<sup>15</sup> <http://reusablebagsac.org/restaurants/requirements>