



9

Outreach, Education, Enforcement, and Compliance Support

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Chapter 9 Outreach, Education, Enforcement, and Compliance Support

Overview

To engage Seattle residents and businesses in waste prevention and recycling activities, Seattle Public Utilities (SPU) starts with outreach and education at the time a customer starts or changes waste services. SPU provides educational materials and instructions that customers can use at their homes, workplaces, or in the broader community. Where needed, SPU takes enforcement actions to achieve compliance with Seattle’s waste-related ordinances and contract provisions. Outreach, education, and enforcement of solid waste contracts and code work together across the solid waste management system, reinforcing behaviors that advance waste prevention and recycling.

This chapter describes the complementary work of the outreach and education teams and the solid waste Inspections & Compliance (Compliance) Team to advance the City’s solid waste goals. The chapter starts by describing how SPU conducts outreach and education to inform customers of solid waste information using various communications channels. It then details specific outreach and education programs by customer sector and concludes by describing how SPU enforces solid waste rules and supports contractor compliance with contract requirements.

Outreach and Education

SPU aims to effectively reach and serve all the diverse populations of Seattle, including people of color, immigrants and refugees, economically disadvantaged people, and English language learners. Recognizing that SPU’s customers come from different backgrounds and circumstances, SPU continues to grow its use of community-centered approaches for outreach and education, such as community-led design and community-based social marketing. For

instance, Seattle now provides more in-language, culturally relevant, and picture-based signage for solid waste carts and containers than ever before. SPU uses transcreation to provide audience-specific outreach and education. Where translation simply changes words into another language, transcreation ensures the meaning is clear and relevant in another culture. Figure 9.1 shows an example of a transcreated flyer where SPU adapted both the words and format.

Figure 9.1 Examples of Transcreated Flyers



Source: Seattle Public Utilities.

Different audiences require different approaches, some of which may be more expensive to implement than others. In balancing SPU’s overall goals, an approach that appears most cost efficient in theory may not necessarily be the most cost effective in practice. For example, sending a letter to all residents might be the cheapest way to provide information to residents, but to effectively reach the intended audience, the letter may need to be provided in multiple languages or combined with a follow-up outreach phone call. Achieving service equity involves accounting for all the costs of implementing education, outreach, and enforcement activities that are needed to achieve the necessary behavior changes for different audiences. Creating

effective outreach also involves conducting tests and pilots to identify and confirm the best approach for reaching specific audiences.

In general, SPU avoids a one-size-fits-all approach to outreach and education by identifying and tailoring targeted messages and approaches that are most effective for diverse audiences and finding opportunities to reach all communities. SPU works closely with its partners to develop and/or promote SPU’s solid waste programs. SPU partners with other City departments, school districts, local governments, and state and nonprofit agencies to better serve its customers. SPU also partners with its contracted solid waste service providers to develop and deliver education to customers on properly sorting materials. SPU invites input from the public through the Contact Center’s customer service team as well as Seattle’s Solid Waste Advisory Committee (SWAC), which provides opinion and analysis on solid waste issues, programs, and services.

Since adopting its *2011 Solid Waste Plan Revision*, SPU has continued to expand its partnerships with community-based organizations, particularly those that serve people of color, low-income households, immigrants, refugees, indigenous peoples, and English language learners. For example, SPU partners with community organizations to deliver linguistically and culturally relevant community engagement through the [Community Connections Program](#).¹ Effective programs include these communities during the planning stage of a program or project, not just during implementation. Other SPU programs that use community partnerships to offer culturally relevant education include the Green Business Program, Natural Yard Care Program, and the Multifamily Outreach Program.

SPU also uses customer surveys to inform outreach and education efforts. Feedback from customers has helped define which tactics are most effective when promoting solid waste programs. In addition to survey efforts, SPU conducts customized focus groups to gather information on awareness, participation, and barriers related to specific audiences. For example, in 2016, SPU conducted in-language focus groups with multifamily residents who



SPU’s residential recycling poster in Spanish (Source: Seattle Public Utilities)

¹ <https://www.seattle.gov/utilities/protecting-our-environment/community-programs/environmental-justice-and-service-equity/community-connections>

spoke Spanish, Chinese, Vietnamese, and Somali to learn about the barriers that each group experiences in keeping food scraps out of the garbage. SPU used insights from these efforts to develop new program strategies.

Seattle requires its contracted collection service providers to also provide education and outreach to customers, including culturally appropriate and in-language communications materials. Required customer engagement activities for the collection contractors include outreach and education on:

- How to sign up for and change services (commercial customers only)
- When to set out materials (collection calendars)
- How to properly sort materials and minimize contamination of recyclable and compostable materials
- Reminders on proper waste sorting using “Oops Tags,” which collection truck drivers leave on containers when customers do not place materials in the correct container

City collection contractors are also required to provide door-to-door tenant education and develop an overall outreach campaign with an emphasis on reaching people of color, people who speak Tier 1 languages (Cantonese, Korean, Mandarin, Somali, Spanish, Tagalog, and Vietnamese), and people born between the years 1981 and 1996. The next section describes the ways in which SPU delivers solid waste information to customers.

Customer Communications

SPU delivers culturally relevant and image-based solid waste information to utility customers through different communication and customer service channels. To understand which messages resonate with customers, SPU tracks measures of engagement for website usage, app activity, and other communication tools, such as page views and unique visitors to online material, described below.

City Websites

Seattle uses several webpages to communicate with customers:

- [SPU's website](http://www.seattle.gov/utilities) is a key source of information for Seattle's solid waste programs and services. The website describes Seattle's solid waste services, rates, and rules.² It also holds planning

² <http://www.seattle.gov/utilities>

documents, reports, informational brochures, and instructional videos to show residents and businesses how to properly manage their waste.

- The [Collection and Disposal](#) page of SPU’s website provides customers solid waste information either by waste type (recycling, food and yard waste, garbage) or by customer sector (single-family, multifamily, commercial, self-haul). The website has forms customers can use to request service changes or report a missed collection.³
- The [Where Does it Go?](#) online lookup tool on SPU’s website allows customers to look up how to recycle, compost, or dispose of hundreds of items.⁴
- The [City of Seattle Utility Services Website](#) allows customers to log into their utility account to see their services and bills, get updates on services, pay invoices, report missed pick ups, and make requests such as changes to service levels, replace missing carts, or request special services.⁵

Social Media

SPU uses multiple social media channels, such as Facebook, Twitter, Instagram, TikTok, Pinterest, YouTube, and Nextdoor, to share information and engage with customers. With the COVID-19 pandemic placing restrictions on in-person outreach, SPU has pivoted from traditional print-based media and ramped up social media efforts, resulting in online views from thousands of customers each week. SPU posts information on solid waste topics three to four times a week, including:

- *Where Does it Go Wednesday* posts with information about how to sort confusing items.
- Promotion of outreach events, such as Recycle and Reuse Collection events, where customers can drop off hard-to-recycle items, such as clothing, furniture, and foam.
- *Ask Evelyn Live*, a weekly show on Instagram TV that started in April 2020, addresses customers questions about solid waste. Short clips from shows are promoted on Facebook, Instagram, TikTok, and SPU’s YouTube channel and are used for additional social media promotion.
- Pinterest boards highlight waste sorting and reduction behaviors and tips.



A social media post promoting Ask Evelyn (Source: SPU’s Instagram account)

³ <http://www.seattle.gov/utilities/your-services/collection-and-disposal>

⁴ <https://www.seattle.gov/utilities/your-services/collection-and-disposal/where-does-it-go#/a-z>

⁵ <https://myutilities.seattle.gov/eportal/#/>

Mobile Apps

SPU promotes two mobile phone apps that customers can use to request solid waste services and get updated information:

- The [Recycle It](#) app provides collection day notifications, enables customers to report service issues, and connects to the *Where Does It Go?* tool for information on waste sorting.⁶ The Recycle It app sends customers weekly notifications the day before their collection day to remind them of which carts to put out that week.
- The [Find It, Fix It](#) app allows customers to report issues to the City, such as illegal dumping.⁷

Contact Center

Customers can receive information about SPU programs and services and access their billing and service information by calling the contact center at (206) 684-3000. Contact center services are designed to help utility customers set up and manage services and understand the program rules, costs, and overall goals. Contact center staff receive training on solid waste programs to provide quality customer assistance.

Mailed Materials

SPU also uses several non-digital tools to communicate with customers. SPU sends the printed materials to customers, including an annual mailer, an every-other-month newsletter, and additional direct mail on specific topics.

Annual collection calendar and services mailer. At least once a year, SPU's single-family, multifamily, and commercial customers receive mailers that outline their solid waste services, collection calendars, and billing services. Single-family customers and multifamily property managers receive an annual collection calendar with the scheduled pick up day(s). Once a year in February or March, single-family customers also receive a *Where Does it Go?* flyer with sorting guidelines and information on curbside and drop-off services for recycling and safe disposal of a wide range of items. Multifamily property residents receive annual sorting guidelines, although they typically receive service through their property manager's account.

⁶ <https://www.seattle.gov/utilities/your-services/collection-and-disposal/recycling/recycle-it-app>

⁷ <https://www.seattle.gov/customer-service-bureau/find-it-fix-it-mobile-app>

At Your Service newsletter.⁸ Customers who receive paper bills receive a physical copy of this two-page newsletter included with bi-monthly billing. Those who use electronic billing receive it as a link in their electronic statement. The newsletter highlights SPU’s services for customers, field operations (giving customers a behind-the-scenes view of SPU’s services), and updates on services and billing.

Direct mail on specific topics. SPU also uses direct mail for specific needs, such as informing customers citywide on how to sort materials and the impacts of improper sorting, or for certain customers to address issues at specific sites or share information on programs for specific types of customers. These letters can be created and mailed automatically for specific needs where the issue is recurring. SPU can send these letters to the service address in multiple languages to address customer language needs.

Containers, Labels, and Signage

SPU views waste containers, labels, and signage as opportunities to reinforce desired behaviors of waste prevention, recycling, and composting. As a result, SPU has been working to use consistent color-coding in all solid waste containers, posters, stickers, and flyers across programs and customer types: gray or black for garbage, blue for recycling, and green for food and yard waste (also called compost).



SPU containers use blue for recycling, gray or black for garbage, and green for food and yard waste (Source: SPU Image Library)

⁸ <https://atyourservice.seattle.gov/>

Color-coded containers. Residential carts have consistently used the gray/black, blue, and green color scheme for many years. SPU is still working to standardize multifamily residential garbage dumpsters to be gray. Since 2017, SPU’s contracted collectors have been delivering gray containers when multifamily customers need new or replacement garbage dumpsters, which will eventually eliminate the non-standard green garbage dumpsters that remain in use throughout the city. Although not required, the City’s contracted waste collectors have also started to use gray dumpsters for commercial garbage customers in Seattle, and, in some cases, elsewhere in the region.

Signage and labeling. Like other education materials, SPU’s solid waste container signage focuses on five main material types to reduce customer confusion and contamination: paper, cardboard, plastic bottles/containers, metal, and glass. Container signage includes posters, labels, or decals and consistently uses the same images and icons as other education materials. SPU has translated signage into Seattle’s four most common languages, which are English, Chinese, Spanish, and Vietnamese, and is also transcreating solid waste materials into these languages.

“Oops” Tags. When needed, collection drivers leave an “Oops” Tag for customers to remind them of the solid waste rules (See Figure 9.2). These are updated yearly.

Figure 9.2 “Oops” Tags Showing Materials Accepted and Not Accepted in Food and Yard Waste or Compost, Recycling, and Garbage



Source: Seattle Public Utilities.

Recommendation

To support proper customer sorting of materials at collection containers, SPU makes the following recommendation.

Rec 34. Continue and expand use of large, color-coordinated, multilingual, and icon-based container decals to encourage proper sorting of waste

In 2017, SPU developed large, color-coordinated, multilingual, and icon-based container decals. They are currently applied to new dumpsters and embedded in the lid of all new carts. SPU should continue to use the decals on new dumpsters and carts, but also explore a focused effort to apply the new decals to existing dumpsters and carts to increase the availability of this signage to a broader range of program participants, particularly in areas where a high percentage of residents speak English “less than very well.” Additionally, SPU should work to design culturally relevant signage in consultation with community-based organizations.

Customer Programs

SPU’s work to highlight customer programs, set customers up with appropriate solid waste services, educate customers on the impacts of their behavior, and communicate regulations helps advance Seattle’s solid waste and resource conservation goals. SPU uses community-based social marketing, among other strategies, to effectively engage customers and encourage them to divert or prevent as much waste as possible. When delivering outreach and education to customers, SPU aims to:

- Provide communications, outreach, education, and technical assistance that is effective, racially equitable, inclusive, and culturally relevant to enable all waste generators to access and benefit from SPU’s solid waste services in a way that meets customer needs

Customer Programs on Specific Topics Discussed in Other Chapters

Natural yard care, food waste prevention, and other prevention: Chapter 4, *Waste Prevention and Reuse*

Recycling and composting: Chapter 5, *Recycling and Composting Policy and Market*

Construction and demolition (C&D) debris: Chapter 8, *Construction and Demolition Debris*

- Build public awareness of how to participate in community solid waste programs, how to save money on solid waste bills, the impacts of waste generation and recycling, and the benefits to public and environmental health of disposing of waste properly
- Maintain flexibility to adjust outreach, education, and technical assistance approaches over time to reflect changes in SPU priorities, demographics, key topics, or audiences
- Support awareness of and compliance with solid waste rules and regulations designed to promote prevention and reduction of waste
- Inform residents about the impacts of service disruptions such as snowstorms, extreme heat, flooding, and earthquakes

To achieve these objectives, SPU and its contractors use a variety of outreach and education strategies and tactics, which are described by customer sector in the following sections.

Commercial Outreach and Education

Most solid waste outreach and education programs for Seattle's commercial customers provide extensive technical assistance through SPU's [Green Business Program](#) or the City-contracted solid waste collectors.⁹ Technical assistance provides tailored support to help businesses and organizations prevent and reduce waste by changing their equipment, operations, or systems. As a partner of the statewide [EnviroStars program](#), SPU cooperates and coordinates with other jurisdictions around the state to share resources and recognize businesses that implement resource conservation actions, including waste reduction and diversion.¹⁰

SPU staff, consultants, and community partners (including community-based organizations and solid waste service providers) provide waste prevention, recycling, and composting resources, education, and technical assistance at no cost to commercial or nonresidential customers. These efforts include a focus on providing in-language support for immigrant and refugee-owned businesses.

In the commercial sector, customers receive direct mail materials customized to their business types such as postcards or event notifications sent to food service, automotive, or other sectors. Focused outreach to food service businesses provides information on food service packaging requirements and provides various forms of support through training and resources. SPU also provides signs, indoor containers, posters, and stickers to help businesses set up recycling and compost collection. Posters and stickers are available in English, Amharic,

⁹ <http://www.seattle.gov/utilities/protecting-our-environment/sustainability-tips/green-your-business>

¹⁰ <https://envirostars.org/>

Cambodian, Chinese, Japanese, Korean, Laotian, Oromo, Russian, Somali, Spanish, Tagalog, Thai, Tigrinya, and Vietnamese.



SPU consultant provides technical assistance to a business customer (Source: Seattle’s 2019 Waste Prevention & Recycling Report)

Compost posters for restaurants are available showing foods relevant to eight different cuisines, and they can be further customized on request. Businesses can use the [waste poster order form](#) on the SPU website to request that flyers and stickers be sent to them by a mailing house.¹¹ Technical assistance includes onsite waste audits, in-language training for staff, and recommendations on collection service levels.

Outreach and Education to Institutions

Through the Green Business Program, SPU also provides support to various institutions including hospitals, colleges, universities, and large commercial entities. SPU provides technical assistance, assesses waste service levels and access, and supports implementation of new

¹¹ <https://www.seattle.gov/utilities/protecting-our-environment/sustainability-tips/waste-prevention/at-work/waste-poster-order-form>

services or service changes to help reduce and manage these customers' solid waste streams. SPU provides additional support to schools for both waste prevention and diversion, including:

- **Technical assistance** to improve sorting, recommend container sizes and collection frequencies tailored for customer needs, and collaborate with school staff, service providers, and students to increase recycling and compost rates and to decrease overall waste generation.
- **Education** to drive sustained behavior change that increases waste prevention and improves sorting, which can reduce contamination in recycling and food and yard waste streams. This education can take the form of support to staff and students within the school, field trips to SPU transfer stations, and engagement with school green teams.

Single-Family Outreach and Education

With several programs that promote recycling and composting to single-family customers, SPU relies on audience research and data analysis to develop messages that will resonate with customers to reinforce desired behaviors, such as keeping recyclables empty, clean, and dry, or sorting waste into the proper containers. According to 2015 survey data, the top three most effective ways to deliver outreach message to single-family customers are: (1) direct mail, (2) community organizations, and (3) word-of-mouth.

Partnerships with community organizations and outreach at community events help SPU reach single-family residents in coordination with multifamily and commercial programs. SPU does extensive ongoing outreach through its community partners to reduce contamination in recycling and food and yard waste. SPU partners with Environmental Coalition of South Seattle (ECOSS) to contact customers who need additional assistance with how to sort or what containers to use. As needed, ECOSS also sends SPU requests for additional technical assistance or educational materials on behalf of customers.

SPU's Inspection & Compliance Team (Compliance Team) also uses a data-driven approach to identify single-family residential customers who need additional technical assistance with difficult issues such as recurring contamination such as garbage in the recycling or food and yard waste containers, improper storage or placement of containers, illegal dumping, or damaged or missing containers. These customers occasionally require onsite visits from SPU's Compliance Team to address site-specific compliance needs.

SPU follows up with customers on compliance-related solid waste issues in different ways. For example, customers whose recycling or composting containers are contaminated with garbage two or more times within six weeks receive a letter informing them of the issue and providing resources to address it. As part of a pilot program, customers with repeat contamination

violations in a small number of zip codes also received a follow-up call offering additional resources and support to correct the source of the contamination, ranging from additional education materials to onsite technical assistance. This technical assistance helps establish trust between SPU and its customers and gives SPU new insights into customer needs.

Self-Haul Outreach and Education



Education rooms at Seattle’s transfer station providing information on recycling interactive activities (Source: SPU Image Library)

Seattle’s two transfer stations provide education to their customers, mainly through signage in recycling areas and interactions with scale house and floor staff. The stations maintain an email list of the most frequent commercial customers to communicate with them as needed.

Both transfer stations offer a dedicated onsite education and viewing room. The onsite education and viewing rooms allow visitors to observe the activities on the tipping floor. The rooms also feature interactive exhibits on recycling and historic photos of waste collection. The North Transfer Station offers a toy model of the transfer station. At the South Transfer Station, the J.P. Patches Viewing Room overlooks the tipping floor to allow for observations by visitors and includes educational displays and videos.

Multifamily Outreach and Education

Once a year, SPU sends sorting guidelines to all 180,000 multifamily households. This mailing is an important strategy to inform households on how to participate in Seattle’s recycling and composting efforts. Residents also receive information on how to report solid waste issues at their property. SPU sends annual mailers to all 7,000 multifamily account holders (typically the property owner or property manager) to inform them of SPU’s free solid waste resources and how to request them.

SPU reviews building blueprints during the design phase of new multifamily properties to make sure they have enough space and adequate access to allow effective solid waste collection. SPU provides property developers and managers with a guide on choosing the appropriate size and

type of collection services to help them design new properties with adequate space and access for solid waste collection. When the building is ready for occupancy, solid waste inspectors from the Compliance Team have a one-on-one in-person session with property maintenance staff on setting up collection services, solid waste rules, and best practices for diversion.

Once a building is set up, SPU provides onsite technical assistance to multifamily properties as needed. These visits are conducted by outreach team members (SPU staff and inspectors, consultants, or contracted service provider staff) after solid waste collection services are set up.

In addition, the multifamily outreach team uses several metrics to identify and proactively visit buildings on an ongoing basis, prioritizing buildings that have lower recycling and/or compost service levels than SPU recommends, or higher garbage service levels (see Chapter 6, *Solid Waste Handling Collection and removal*, for recommended levels). SPU also visits and assists buildings that need support when they receive reports or complaints from property staff, residents, solid waste compliance staff, or the public.

During an onsite technical assistance visit, outreach staff walk through the building and around the site with property staff to evaluate solid waste collection. During the visit, they assess the ease and convenience of resident access to solid waste containers. The team notes where residents dispose of each of the solid waste streams taking notes, such as areas on every floor, on one floor, outside. The team also records other solid waste infrastructure information, such as the number of floors, towers, and whether the building has solid waste chutes, which enable residents to dispose of waste on each floor and transfers it to a central location at the bottom of the building. Based on data collected during the visit, outreach staff provide recommendations for improving resident participation and reducing contamination. The recommendations include optimizing the levels of collection service and the way collection containers are set up. Sometimes these recommendations reduce customer solid waste costs.

SPU also provides property staff with free tools such as large signage, compostable bag dispensers, and food scrap containers for small trash rooms and for individual apartment units. Figure 9.3 presents examples of multilingual icon-based decals that SPU offers to ensure recycling and compost bins are clearly labeled for English language learners. Property managers, property owners, and residents can also request flyers, posters, and stickers through the [SPU website](#).¹²

¹² <http://www.seattle.gov/utilities/your-services/collection-and-disposal/multi-family-properties/for-managers-and-owners/help-residents#order>

Figure 9.3 Multilingual Icon-Based Bin Decals



Source: Seattle Public Utilities.

Once SPU has provided technical assistance to help optimize solid waste collection, SPU may conduct a resident training event at the property. A multilingual team of environmental educators will give a presentation, conduct a tabling event, or go door-to-door to provide the necessary information to address the main issues found during technical assistance. The team of educators may also distribute tools such as food scrap containers.

Finally, SPU supports “Recycling Volunteers” at multifamily buildings. A Recycling Volunteer can be a resident, property manager, or maintenance staff person who volunteers to learn about Seattle solid waste guidelines, post signage, and then educate other building tenants about proper sorting. This program helps empower a volunteer interested in helping their building recycle better to oversee proper handling and sorting of waste materials. Recycling Volunteers can be particularly helpful to tenants in buildings that may not have an onsite manager. SPU applies a one-time \$100 credit to the solid waste bill of participating properties, which normally benefits the property owner. SPU is exploring ways in which the Recycling Volunteer could benefit and be empowered to make improvements related to solid waste services.

To assess outcomes of these multifamily efforts, SPU collects information on the outreach conducted and qualitative information on how successfully the building is recycling or diverting food waste. To help evaluate the equity of service delivery, SPU reviews the distribution of outreach each year to assess whether buildings of different sizes and in all geographic areas are being served by technical assistance and other outreach efforts. SPU uses this information to adjust outreach in the following year.



SPU staff member at an annual event for property managers (Source: 2019 Waste Prevention & Recycling Report)

Construction and Demolition Debris Outreach and Education

SPU provides limited, industry-specific outreach on C&D debris requirements and recycling to:

- **Waste collectors** to remind them of C&D debris hauling regulations
- **Mixed C&D sorting facilities and construction professionals** on materials banned from disposal
- **Construction professionals** on conducting assessments for recoverable building materials on alteration and demolition projects.

SPU connects with construction professionals using information from the [SPU required forms](#) for building permit applicants. Chapter 8, *Construction and Demolition Debris*, contains recommendations for C&D education and outreach.¹³

¹³ <http://www.seattle.gov/utilities/construction-resources/collection-and-disposal/construction-and-demolition>

Recommendations

To expand and enhance education, outreach, and enforcement efforts that promote waste prevention and diversion behaviors, SPU makes these three recommendations.

Rec 35. Continue and expand use of available metrics to inform outreach strategy and measure outcomes

SPU's education and compliance staff should continue to work in coordination when conducting outreach to customers. In the multifamily sector, SPU should continue to focus on large buildings, buildings with service levels for recycling and compost that are below the recommended amount, and buildings with high solid waste collection costs. SPU should review solid waste service level data more often, such as monthly or quarterly. This data-informed approach helps SPU direct outreach and education to multifamily buildings with the highest potential to divert material. Because this approach may identify a greater need for outreach, SPU should also explore ways to scale up technical assistance efforts if needed, such as by working with several groups of consultants to provide education.

SPU should also evaluate its pilot program that provides technical assistance to single-family customers based on data regarding recurring contamination and decide whether and how to expand these data-driven outreach efforts citywide and to other customer sectors.

Ongoing measurement and evaluation of outreach and education activities helps SPU measure outcomes and ensure they provide effective, equitable, inclusive, and culturally competent outreach and education. To better inform outreach and measure outcomes, SPU should develop and implement performance measures on the following topics:

- **Measures to assess customer reach**, including awareness and use of solid waste services.
- **Racial equity-related metrics**, such as demographic distribution of education or enforcement activities. SPU seeks to ensure that residents living in the north and south areas of Seattle are being served, as these areas rank higher in priority in the Racial and Social Equity Index (which considers race, the population of English language learners, and potential socioeconomic and health disadvantages).¹⁴
- **Measures to assess community participation in planning, design, and implementation of SPU's education, outreach, and technical assistance programs**, as well as the number and strength of partnerships that support these efforts.

¹⁴ The Racial and Social Equity Index Map is a geographic analysis by the Office of Planning and Community Development that supports City planning, program, and investment priorities. It is described in more detail in Chapter 2, *Maximizing and Measuring Impact: Moving Upstream, Beyond the Recycling Rate*. The map can be accessed online at the following link:

<https://www.arcgis.com/home/item.html?id=f2e813896b04413ea57b5eeb76c61d8b>.

- Research and identify opportunities to **evaluate the performance of education, outreach, and technical assistance activities** and tie activities to waste prevention and/or diversion outcomes to the extent possible.

Rec 36. Continue participating in the regional Communication Consortium to unify solid waste messaging between Seattle and King County municipalities

Items accepted for recycling or composting can differ across jurisdictions, which creates confusion for SPU's customers who live or work outside Seattle. Unifying education and outreach messages across the region should reduce confusion and simplify education, helping to achieve desired customer behavior. In this strategy, SPU should support unified messaging on curbside recycling for Seattle and King County residents by continuing to participate in the regional Communication Consortium, a collaboration between communications staff from SPU and neighboring jurisdictions that resulted from the [Responsible Recycling Task Force](#).¹⁵

Continuing the Communication Consortium involves staff attending monthly meetings to develop consistent messaging and branding of communications materials, including transcreated materials, across the region. The Communication Consortium has already developed education materials to decrease contamination and sorting confusion in the recycling and compost waste streams, through the Recycle Right and Compost Right campaigns in 2019 and 2020. The success of this effort has brought in additional members from the Washington State Department of Ecology to participate and extend campaigns to a state-wide audience.

¹⁵ King County Solid Waste Division, "Responsible Recycling Task Force," Accessed August 25, 2019, <https://kingcounty.gov/depts/dnrp/solid-waste/about/advisory-committees/recycling-task-force.aspx>.

Rec 37. Expand waste prevention and diversion outreach and education in schools

SPU has piloted waste prevention and diversion programs in several schools, focusing primarily on Seattle Public Schools serving K-12 students. SPU school education and outreach should expand to also support independent schools. SPU should work to identify best practices for school waste prevention and diversion programming based on the results from ongoing pilot programs. SPU anticipates expanding school education and outreach to increase its reach and support schools in meeting waste prevention and diversion goals. For example, Seattle Public Schools have a waste generation goal of four cubic feet, per student, per month. To enable schools to share resources and education more effectively, SPU can work to create a peer-to-peer network for schools and facilitate information-sharing.

Sometimes outreach and education are not enough to ensure voluntary compliance with waste-related regulations. The next section describes Seattle's enforcement program for municipal code and compliance support for waste-related contracts.

Code Enforcement and Collection Contract Compliance Support

SPU attempts to give all customers the same opportunity to follow the solid waste code by providing standard, or universal solid waste education and tools. Most customers follow the solid waste rules most of the time. For customers that do not comply with the solid waste code, SPU conducts code enforcement activities, starting with outreach and technical assistance, to achieve compliance with solid waste rules and regulations. By enforcing solid waste code, SPU's compliance activities help advance Seattle's goals to provide safe, reliable, and efficient solid waste collection services, keep the city clean and safe, minimize waste generation, and maximize recycling and composting.

Seattle's Solid Waste Compliance Team, which includes both field operations and data management staff, concentrates most enforcement activities around the following Seattle Municipal Code (SMC) requirements for solid waste disposal, containment, container placement, recycling, and service levels. Requirements for residential customers relate to garbage container number, size, and waste sorting (SMC 21.36.050). Requirement for nonresidential customers relate to solid waste disposal, container number, and size (SMC 21.36.042 and SMC 21.32.044). All customers must follow requirements related to garbage container maintenance, condition, and weight (SMC 21.26.060 and SMC 21.26.070); container

placement (SMC 21.36.80); mandatory recycling of certain materials (SMC 21.36.083); service levels appropriate for the amount of garbage and rubbish collected (SMC 21.40.050 and SMC 21.40.070).

The Compliance Team also:

- **Provides litter code enforcement**, assisting the Clean City program to address illegal dumping submissions on the *Find It, Fix It* app that are at or near an existing solid waste collection service location.
- **Supports compliance with solid waste requirements for new construction in the land use code** by providing consultation on safe and adequate solid waste storage and access to SPU staff reviewing new construction designs for compliance with solid waste requirements in the land use code.
- **Enforces the SPU Director’s Rule, “[Temporary Container and Bag Placement and Removal At Curbs and Public Alleys](#),”** which allows temporary placement and removal of solid waste containers and bags for customers located within designated business districts in the Clear Alleys Program (CAP).¹⁶ The CAP is described in more detail later in this section.

Regulations and Requirements Discussed in Other Chapters

Single-use bags and food service packaging ordinances: Chapter 4, *Waste Prevention and Reuse*

C&D reporting requirements and recycling and facility certification: Chapter 8, *Construction and Demolition Debris*

Recycling requirements for residential and commercial waste generators, including the CAP: Chapter 6, *Solid Waste Handling Collection and Removal*

Secure load requirements and recycling collector reporting requirements: Chapter 7, *Solid Waste Transfer, Processing, Disposal, and Emergency Management*

Separate from code enforcement, the Compliance Team helps ensure reliable and equitable solid waste collection for City customers by assisting the Solid Waste Contracts Manager to enforce performance components of the two solid waste collection contracts. The Compliance Team provides the Solid Waste Contracts Manager, who oversees the City’s solid waste collection contracts, with information compiled by inspectors in the field or through analysis of customer or contractor data, to enforce performance expectations of the collection contractors. An operations plan codeveloped by SPU and the contractors details how the City enforces performance components of the collection contracts.

¹⁶ https://www.seattle.gov/Documents/Departments/SPU/Documents/01_029884.pdf

Using Data Collection and Analysis to Monitor Compliance with Code and Collection Contract Requirements

SPU supports safe and efficient solid waste collections and compliance with solid waste-related code or collections contracts by tracking and auditing data from a variety of sources, detailed below. The Compliance Team uses these data sources to ensure reliable collections, monitor compliance, guide enforcement activities, and evaluate progress toward diversion goals. Compliance data can also help SPU understand the communication needs of residents and businesses by revealing which challenges occur repeatedly among a given set of customers. By identifying patterns in customer behavior, SPU can better tailor not only education and outreach messaging, but also SPU’s approaches to achieving compliance. SPU reviews monitoring and performance data for the following areas:

- Regular reports from City-contracted collectors, which include reporting on collection of extra waste setout for collection (referred to as “extra setouts”) over a six-month period and monthly contractual performance reports. “Extra setouts” refers to additional garbage, recycling, or yard waste that do not fit into the resident’s curbside collection containers, which must be placed in a separate bag for collection and meet setout guidelines and rules. The variable bill that contracted collectors send to the City contains a wide variety of data and metrics used to verify contractor compliance and to conduct customer outreach and education.
- Solid waste subscription data, which indicate which types of services customers have, container sizes, and frequency of collection. The Compliance Team analyzes these data to help ensure customers are meeting all solid waste service requirements in the solid waste code.
- Collection exceptions data, which refers to information about nonstandard collections. Drivers note collection exceptions based on their observations while driving a route, such as

Beyond Code Compliance

In addition to providing solid waste-related code enforcement, the **Solid Waste Inspection & Compliance Team** advances SPU’s diversion goals and helps ensure safe and efficient collections by:

- Supporting enforcement of performance components in the solid waste collection contracts through onsite audits of containers, for example
- Managing new service set ups and service changes for multifamily customer accounts and troubleshooting multifamily services issues
- Improving customer data, such as identifying and correcting billing errors in customer databases
- Investigating escalated customer issues through research and analysis to resolve them

excess waste set out by customers or issues related to blocked or locked containers. The Compliance Team uses this information to schedule field visits to conduct customer outreach and education or assess solid waste services and access.

- Work order requests related to service and billing errors that customers or contractors report. The work order requests are generated through the Customer Care and Billing (CCB) database or the SPU Customer Portal. To satisfy customer requests and resolve collection service issues, the Compliance Team compiles information it collects from making site visits in the field, reviewing customer service and billing history data, or speaking to customers and collection drivers directly.
- Geographical Information Systems (GIS) site datasets that map solid waste data, allowing allow SPU to identify areas that would benefit from additional compliance support, measure diversion program success, and find contamination in recycling and composting. Data compiled by the Compliance Team and customer-sector outreach and education teams where they are partnering on inspections of select multifamily, commercial, and C&D debris dumpsters for service level and diversion compliance. This work may include area-based customer and contractor audits in all areas of Seattle of customers who are not subscribed to adequate service as well as random audits to check on diversion requirements.
- Data collected during commercial and multifamily education and technical assistance efforts, which includes information about how collection service is set up on the property, notes about collection issues or best practices observed on site, and activity tracking for outreach and engagement.
- Find It, Fix It app reports of illegal dumping and overflowing solid waste containers. The Compliance Team reviews these reports and, if appropriate, contacts affected customers to determine whether the customer can assist with the issue or if the issue requires SPU to provide cleanup efforts.



Overflowing containers in an alley (Source: SPU Image Library)

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SPU uses several tools to gather, store, and analyze these data including GIS mapping and SPU’s CCB database using an Oracle system. SPU uses GIS mapping to visualize and evaluate the distribution of collection exceptions and field activity data. SPU also analyzes billing and contamination data provided by collection drivers and tracks the actions taken to address contamination issues.

SPU’s CCB Oracle system contains much of the performance data on both customers and collection contractors based on data collected from the Contact Center, customer reports, and collection drivers. This system provides hourly updates from the City to the City-contracted collectors and from these collectors back to the City. These updates indicate the status of the collection and any site or container issues that need to be addressed. It also includes data on variances in billing, such as extra pickups required for excess material. Along with data variances in billing, these updates detail improper use of solid waste services, including contamination of recycling or food and yard waste carts, that SPU uses to guide enforcement and customer education actions.



SPU’s contractors and a member of the Compliance Team (foreground) review CAP services in the International District (Source: Pat Kaufman)

Data tools in development include the following:

- SPU is piloting an online inspection tool used on smart phones to enhance the inspector's data collection and enforcement activity in the field, or onsite.
- To be able to enforce code and contract compliance in the CAP, SPU is developing a way to send service requests through the City's software system to the collection contractors for those areas.

Enforcement and compliance activities require high quality data to identify customer risk issues and priority areas, particularly around areas with the largest opportunities for solid waste diversion. The Compliance Team conducts day-to-day solid waste data quality efforts to correct errors that impede safe and efficient solid waste collection services, prevent the advancement of diversion goals, or impact timely and accurate billing. The Compliance Team reviews the collection contractor and City's error data weekly to make corrections and improve data quality.

Enforcement at Multifamily Residential and Commercial Properties

Both the multifamily and commercial sectors receive education from SPU's outreach and education teams and contractors, including waste collectors, who provide technical assistance and in-language training, described earlier in this chapter. Compliance activities for these sectors include:

- **Weekly contamination inspections of multifamily dumpsters for any recycling or food waste in the garbage.** Currently, the Compliance Team can also replace missing or outdated container decals, address poor solid waste service management or container location issues, and/or replace broken or damaged dumpsters. The Compliance Team performs routine inspections of commercial dumpsters in select business districts for code compliance.
- **Weekly audits to confirm the accuracy of contractor-reporting of fees.** Customers are charged for extra food waste and garbage set out for collection.
- **Follow-up with customers whose collection driver has left an "Oops" tag on their container indicating the presence of recycling or food waste in the garbage.** The Compliance Team, together with outreach and education staff, sends a letter to the customer explaining how to properly sort their materials. If a driver issues a third "Oops" tag, the property can be fined \$50 per instance of contamination. The Compliance team consults outreach and education staff for assistance prior to issuing fines.
- **Referrals from the Compliance Team to SPU's outreach and education staff.** Outreach and education staff, instead of the Compliance Team, provide technical assistance and

compliance guidance through a growing partnership that allows each group to focus on diversion priorities.

Figure 9.4 “Oops!” Tags for Garbage, Recycling, and Food and Yard Waste



Source: Seattle Public Utilities.

Enforcement in Commercial Business Districts

The Compliance team works with the commercial education program and Seattle’s collection contractors to partner on education and enforcement with nonresidential customers that need additional support in select densely developed high-traffic areas called “business districts.” The Compliance Team monitors larger commercial districts weekly to ensure safe solid waste practices. Issues that are more common in business districts than in other areas include illegal dumping, dense dumpster placements, narrow and congested alleys, and litter and scatter around dumpsters.

The Compliance Team inspects commercial dumpsters and encourages the use of locking dumpsters for safe and organized collection areas. Enforcement at larger properties that use compactors is a particular challenge that requires a high level of resources and planning. Space

constraints in compactor staging areas present a key challenge to enforcement and compliance activities in both the commercial and multifamily sectors because they make onsite inspections difficult, if not impossible, to access compactors for code enforcement. Inspecting compactors at the transfer stations presents difficulties because compactors are often hauled at night outside of regular business hours.

The CAP helps to address six business districts throughout Seattle with older buildings that lack private storage for customer dumpsters. CAP customers use approved bags for solid waste services for garbage and recycle. These bags are picked up multiple times per day to keep the solid waste off the ground. The CAP program also picks up all illegal dumping in the alleys, keeping the alleys cleaner and safer. Keeping those alleys cleaner for pedestrian foot traffic and vehicle loading and unloading areas requires frequent collection and cleanup.

Enforcement at Single-Family Residential Homes

The Compliance Team enforces rules that apply to single-family customers by doing the following:

- **Weekly audits of data provided by City-contracted collectors to confirm accuracy of extra setouts and charges.** These audits help verify contractor billing and compliance with performance components in the collection contracts.
- **Review “Oops” tag data provided by City-contracted collectors to help identify customers who are not meeting the contracts or code requirements.** According to the collection contracts, truck drivers must tag containers containing excessive levels of contamination with an “Oops” tag and report the contamination using their on-board tablet. This information is then processed for education assistance, customer outreach, technical assistance, and compliance. “Oops” tags alert customers about how to address a range of issues, from garbage in the recycling to overweight containers.
- **Review reports of repeat contamination violations to ensure customers receive assistance to sort materials properly.** Solid waste collection drivers note repeated, continual contamination at sites on their route and include a brief description of the issue. When continual contamination issues are reported, SPU staff follow up with outreach via phone and a letter to help communicate code requirements. If a customer continues to contaminate recycling or food and yard waste (compost) streams despite these efforts, the City-contracted collector and SPU may agree to not service the contaminated containers and require a special pick up of the material as garbage.



SPU educational materials and flyers about waste sorting on an outreach table (Source: SPU Image Library)

As Seattle grows, SPU and the collection contractors must continually adapt to the complexities of an expanding customer base in an increasingly dense city. Changes in the cityscape due to growth and densification present many challenges for safe, efficient, and reliable solid waste collections. In the single-family sector, some of key challenges SPU is working with its partners to address include:

- **Increasing multi-unit townhome development in neighborhoods historically populated with single-family homes.** The proliferation of townhomes means customers set out more carts in limited areas, such as at the curb in small planting strip areas. Placing more carts in small areas can result in unreliable collections due to poor driver access, billing errors due to difficulties differentiating between customer containers, and litter due to poor customer access or unauthorized use of containers.
- **Increasing development of large multifamily properties with compaction services in historically single-family areas.** Properties with waste compactors require different collection trucks than single-family collection, resulting in more collections trucks in the neighborhoods overall. This requires the collection contractor to increase their crews and fleets, which can present challenges. Large multifamily compactors also present collection challenges as they require longer collection times and increased right-of-way access to load the compactors onto truck trailers for hauling.

These challenges can lead to unreliable collections and poor customer compliance with solid waste rules and regulations. To address these challenges, SPU works to adapt its compliance and enforcement to better support its customers.

Recommendation

To boost compliance with solid waste rules, SPU makes the following recommendation:

Rec 38. Expand efforts to increase compliance with solid waste code and requirements across customer sectors

SPU should identify and implement strategies to address non-compliance that cover all of Seattle’s municipal solid waste codes. SPU should be more consistent in its enforcement activities across sectors and areas of the city. SPU can also expand partnerships with solid waste outreach and education efforts to address common issues. For example, increasing residential education on bulky pick up options may reduce illegal dumping issues. Specific areas of opportunity for increased enforcement include:

- To scale enforcement efforts, designate the Compliance Team as official “commissioned officers” with the power to write tickets for noncompliance.
- Improve the accuracy of dumpster inspections to better identify contamination. For example, SPU should develop an inspection and monitoring program to address large, compacted dumpsters, which are harder to inspect than other containers.
- Test using solid waste sensors in large garbage dumpsters for automated assessment of solid waste contents.
- Implement regular site visits to select large, regularly contaminating multifamily properties, focusing on improving set-up and monitoring of food waste collection and recycling. These properties need continued assistance to remain in compliance with solid waste code.
- Increase inspection at construction job sites to enhance compliance and increase C&D debris diversion. This will require developing an understanding of the building construction schedule.
- Increase the oversight and enforcement of business district solid waste commercial and multifamily services to enhance the cleanliness and safety of business district solid waste storage and service areas. The focus should be enforcement of solid waste code such as the container maintenance code and the required services code.
- Require locking of dumpsters in business district areas and improve locking mechanisms to reduce illegal dumping and extreme scatter.

- Increase enforcement of CAP cart use found in the CAP Directors Rules to reduce out-of-compliance containers in the CAP areas, such as glass only recycle carts. This would improve overall alley conditions while improving compliance with solid waste code.
- Continue to implement and monitor outcomes from pilot partnerships with SPU's education and outreach staff regarding properties with more complex barriers to compliance. SPU should also consider opportunities to expand the program in the future.
- Increase enforcement of bans on food waste in recycling and garbage to help improve recycling quality and compliance with proper sorting.