



6

Solid Waste Handling, Collection, and Removal

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Chapter 6 Solid Waste Handling, Collection, and Removal

Overview

Managed collection and proper handling of solid waste from residents and businesses protect the health of Seattle residents and the surrounding environment. Diverting recoverable recyclable materials from landfill into new products helps conserve natural resources and minimizes pollution associated with production, while recycling food and yard waste into compost helps reduce the production of methane gas, a powerful greenhouse gas. Furthermore, keeping hazardous materials out of landfills helps prevent toxic leaching into the surrounding soil, groundwater, and air.

To help protect human health and the environment and keep Seattle beautiful, SPU manages citywide collection of solid waste and some other wastes at the curb, onsite, and at its two transfer stations. SPU also provides litter collection and illegal dumping removal in the public right-of-way; collects waste from unsheltered encampments and from recreational vehicles; operates two hazardous waste collection facilities; and provides customer education on how to properly and safely dispose or recycle most materials. This chapter is organized according to how SPU handles and manages collection or removal of different types of wastes from homes, workplaces, and the public right-of-way:

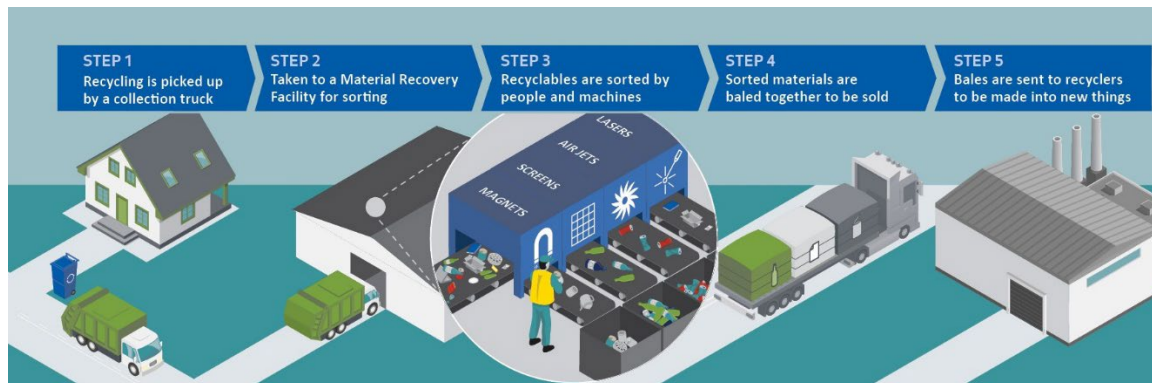
- **Curbside or onsite collection where people live and work:** waste collectors pick up recycling, food and yard waste, garbage, and some additional items discarded from Seattle's homes and workplaces. Customers can also choose to self-haul their waste to a City-operated transfer station.
- **Litter and illegal dumping removal from the public right-of-way:** Contracted collectors and vendors and/or volunteers collect litter and illegal dumping discarded in the public right-of-way, in encampments, and by residents living in recreational vehicles.
- **Hazardous waste drop-off for certain materials prohibited from the garbage:** As part of the Hazardous Waste Management Program in King County, SPU operates two hazardous waste

drop-off facilities and provides at-home collection of hazardous waste for elderly and disabled King County residents.

- **Proper handling of other waste:** SPU collects some “other” wastes at the transfer stations that require special handling. For “other” waste that it does not manage, SPU provides guidance on proper handling and disposal.

Collection at Home and Work

Within city limits, Seattle Municipal Code limits the hauling of (1) residential garbage, recycling, and food and yard waste, (2) commercial garbage, and (3) construction and demolition debris destined for disposal to designated contractors selected by SPU. SPU designs collection services according to the goals and the needs of each sector. Service areas and routes are planned for efficient use of collection vehicles. Services are designed to create an even, predictable flow of material collected each day to help transfer and processing facilities avoid stockpiling incoming materials.



SPU's Recycling Process (Source: SPU)

SPU uses a competitive bidding process to select contractors. Where possible, SPU requires collection contractors to reduce environmental impacts of solid waste management operations. For example, SPU requires collection contractors to use clean fuel types to power collection vehicles and to purchase specific types and quantities of new battery-electric vehicles. Other environmental fleet specifications relate to new clean burning engines, low-impact brake pads, and idle shut-off systems.

Seattle contracts require collection service providers to also deliver education and outreach to customers, including culturally appropriate and in-language outreach. Currently, SPU contracts with two companies, Waste Management and Recology. These contracts began on April 1, 2019, and continue through March 31, 2029.

Generally, for home collection of solid waste, SPU's contractors take recycling, food and yard waste, garbage, and some miscellaneous items discarded by residential customers living in single-family or multifamily homes. Residential customers also have the option of hauling their waste directly to Seattle's transfer stations for recycling or disposal, a practice referred to as "self-hauling."

Commercial customers, which include entities such as businesses, nonprofit organizations, and institutions, have the option of hauling their own waste to Seattle's transfer stations for recycling or disposal, but most (approximately 8,000 customers) rely on Seattle's contracted commercial garbage collector for garbage collection services. A few commercial customers are exempt from using City-contracted garbage collection service and may use a third-party garbage hauler.

For recycling and food and yard waste collection service, most commercial customers choose to use a third-party private hauler, though they may obtain limited recycling and a full range of food and yard waste collection services from City-contracted collectors.¹ Table 6.1 summarizes service provider options by sector and waste stream.

Table 6.1 City-Contracted and Private Collection Services

SECTOR	MATERIAL GARBAGE	RECYCLING	FOOD AND YARD
SINGLE-FAMILY	City contracted	City contracted	City contracted
MULTIFAMILY	City contracted	City contracted	City contracted
COMMERCIAL	City contracted or (rarely) private haulers	City contracted or private haulers	City contracted or private haulers

SPU has divided the city into four areas for City-contracted collection. Figure 6.1 shows the collection areas served by Seattle's two collection contractors as of 2019.

¹ Under Seattle's contracts, commercial customers can get up to two 96-gallon recycling carts for every-other-week collection at no cost and can subscribe to a wide range of food and yard waste collection for a fee.

Figure 6.1 Commercial and Residential Collection Service Areas 2019



Source: Seattle Public Utilities.

Single-Family Residential Collection

Seattle's single-family sector includes approximately 170,000 individual households. Single-family residences are those with one to four dwelling units. Single-family residences are required to subscribe to collection services for garbage and food and yard waste; garbage service includes the cost of recycling collection. To receive service, customers must set out their carts or cans at the curb or in the alley on their collection day. All three waste streams (garbage, recycling, and food and yard waste) are collected on the same day to provide efficient and effective services and to decrease customer confusion.

Residents may choose from several sizes of garbage containers, and service costs increase with the garbage container size to encourage diversion of recoverable materials to the recycling cart and the food and yard waste cart. Food and yard waste service costs less than garbage. SPU also offers "backyard service" for customers unable to bring their containers to the curb. Backyard service is available for a fee for all customers and is free for qualified customers (usually for customers with disabilities). Extra garbage and yard waste may be set out for a fee if properly contained.

Single-family customers are automatically signed up for recycling when they request garbage collection. Recycling is collected every other week in either a 65- or 96-gallon wheeled cart. Customers can request one additional recycle cart free of charge. Since 2009, Seattle's recycling has been collected "single-stream," in which all recyclables are collected together in one container. Extra recycling, when properly contained, may be set out for free.

All single-family customers must subscribe to food and yard waste collection service. Customers choose from three sizes of wheeled carts (13-, 32-, or 96-gallon), and the price increases with size. Additional yard waste (but no extra food waste) may be set out for a fee if it is properly contained.

Multifamily Residential Collection

Seattle's multifamily sector includes approximately 180,000 households and 7,000 buildings with five or more units. The type and size of multifamily buildings range widely, including large garden-style properties (typically one to three stories with shared outdoor space), mid-size condominiums, mixed-use high-rises, and small efficiency units.



Recycling at a multifamily property using a dumpster (Source: Seattle Image Library)

Seattle's contracted collectors pick up garbage from multifamily buildings at least once a week. Various sizes of compactors, roll-off containers, dumpsters, and some wheeled carts are available to multifamily customers. Collection frequency and dumpster size depend on the needs and space constraints of the building. The cost of service increases with garbage container size and pickup frequency to help to encourage diversion. Multifamily buildings are required to subscribe to garbage service and to provide their residents with recycling and food and yard waste collection service. Most compostable waste from multifamily customers consists of food waste, so this section uses the term "compost" to describe food and yard waste collection.

Recycling service is included in the cost of garbage service for multifamily buildings. SPU assesses each property to determine the appropriate container type, size, and collection frequency. Various sizes of compactors, dumpsters, and 96-gallon wheeled carts are available to multifamily customers. About 60% of apartment buildings and condominiums have recycling collection every other week, while the remaining properties have their recycling collected more often. SPU recommends that multifamily buildings subscribe to the equal volumes of trash and recycling; guidelines are presented in Table 6.2.

Table 6.2 Recommended Multifamily Service Levels per Dwelling Unit

STANDARIZED CAPACITY (PER WEEK, PER UNIT)		
Stream	Gallons	Cubic Yards
Garbage	30	0.15
Recycle	30	0.15
Compost	2	0.01

Compost collection service became a requirement for the multifamily sector in September 2011. Building needs and number of dwelling units determine service levels. Various sizes of wheeled carts are available to multifamily customers. Compost carts are normally collected once a week. Multifamily buildings can subscribe to “onsite” service or “curb/alley” service. At properties with curb/alley service, property managers or other property staff move collection carts from the building to the curb or alley on designated collection days. For properties that do not have staff who can routinely move carts to the curb, SPU offers onsite service where the contracted collector transports carts from the building to the curb for collection. Onsite service is more expensive than curb/alley service.

Multifamily compost carts that are used mainly for food waste collection include a compostable bag or liner that the contracted collector installs after emptying the containers. The liners are provided at no additional cost, and they help improve the cleanliness of the cart. Buildings that have a commercial kitchen or produce very large volumes of food waste are encouraged to use a compost dumpster, which is available from private companies.

Solid waste collection in the multifamily sector, the fastest-growing housing type in Seattle, presents unique challenges. Collecting waste from multifamily building containers is more difficult than collecting from single-family carts because multifamily buildings all have different layouts and container types and configurations, including multiple collection points at some properties.

Additionally, research suggests that inadequate solid waste infrastructure is one of the main barriers to resident participation in diversion programs.² While single-family residents normally have co-located containers that are easily accessible, multifamily residents often lack convenient access to solid waste containers, which is especially true for recycling and compost. Buildings may have space constraints for common solid waste containers and residents may have limited space available inside their units for multiple receptacles to allow for sorting and

² Based on SPU’s surveys, focus groups, and data collected at hundreds of Seattle buildings.

separation of recycling and food waste. Other factors that affect convenience, access, and use of multifamily collection services include:










- Property owners and/or managers—not tenants—subscribe to and pay for solid waste services. Residents in multifamily buildings with shared containers often do not directly pay more for disposal if they produce more waste, losing the economic incentive to reduce waste or recycle more.
- Reaching tenants directly requires extra effort by SPU because building operators are the subscribing customer.

Beyond the Cart Residential Services

This section describes SPU’s “[Beyond the Cart](#)” recycling, compost, and garbage services available to all Seattle residential customers in addition to curbside or onsite solid waste collection where they live.³ Both single-family and multifamily customers may set out certain recyclable materials that are not accepted in their carts, listed in Table 6.3. Single-family customers must schedule a pickup for these items with their designated collector. Multifamily residents must arrange for these services with building management because only the bill payer, who is usually the property manager, can request and schedule pickup of these additional items.

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

Table 6.3 “Beyond the Cart” Items Collected Curbside

ITEMS	COLLECTION REQUIREMENT	FEE
CFLs (compact fluorescent lights)		\$
Household batteries		\$
Electronics		\$
Large items, such as appliances and furniture		\$
Motor and cooking oil (used)		×
Small gas canisters		\$
Styrofoam blocks		×
 Must be scheduled  Must be properly contained \$ Fee × No Fee		

Customers must usually pay a fee to have large items like appliances and furniture removed from their property. However, enrolled [Utility Discount Program](#) customers are eligible to receive one of the following options for access to large item collection: ^{4 5}

- Two large item pick ups
- Two transfer station vouchers
- One transfer station voucher and one large item pick up



Beyond the cart collection of block foam at a single-family residence (Source: Pat Kaufman)

⁴ The Utility Discount Program provides bill assistance for seniors, persons with disabilities, and low-income homeowners and renters.

⁵ <https://www.seattle.gov/utilities/your-services/discounts-and-incentives/utility-discount-program>

SPU also partners with its collection contractors to host six community collection events per year to provide residential customers with convenient drop-off options to recycle items and reusable materials. Both single-family and multifamily residential customers can bring items for recycling and reuse that cannot go in their home recycle cart or dumpster. Events are free. See Table 6.4 for accepted items and required condition.

Table 6.4 Items Accepted at Residential Recycling and Reuse Collection Events

ACCPETED ITEM	CONDITION AND REQUIREMENTS
Clothing and linens	Any condition, must be clean and dry
Florescent tubes and bulbs	Limit: tubes must be no longer than 4 feet; no broken bulbs
Household batteries	Not damaged
Paper for shredding	Limit: 4 boxes of paper
Small appliances	Non-freon
Small electronics	Size and quantity limits apply
Small furniture and household goods	In good condition
Styrofoam	Size and quantity limits apply

Compost Giveaway events are held four to six times per year, where residents can receive up to half a yard of free bulk compost made from food and yard waste. These popular events offer an opportunity to educate customers on the importance of closing the loop in composting, composting all their food and yard waste, and keeping non-compostable material out of the compost stream.

Commercial Collection

Commercial customers can self-haul their garbage to a City-owned transfer station or to a designated privately-owned transfer station within Seattle city limits if they choose not to subscribe to City-contracted garbage collection service. Garbage is collected from the commercial sector similarly to the multifamily sector.

City contractors collect garbage from compactors, dumpsters, or carts of various sizes at least weekly in most parts of Seattle. To encourage recycling, the monthly garbage fee depends on and increases with, container size and pickup frequency. In areas served by the [Clear Alleys](#)

[Program](#) (CAP), City contractors collect garbage more often than weekly using prepaid bags.⁶ City contractors deliver garbage to one of Seattle's two transfer stations.

Commercial customers must separate their recyclables from their garbage. The commercial sector has many recycling collection options. For businesses that need a limited amount of recycling service, Seattle's collection contract includes a small business recycling service of up to two carts collected every other week at no additional charge.⁷ However, most commercial customers require more service than this and therefore contract with a third-party hauler for recycling collection service.



Food waste, recycle, and garbage collection containers for restaurant customers (Source: Pat Kaufman)

If commercial customers do not use SPU's small business recycling service, they may contract with any third-party private recycling hauler on the open market for recycling collection. These haulers collect materials in a wide variety of dumpster and compactor sizes. Collectors sometimes take source-separated materials, such as baled cardboard from large grocery retailers, directly to recycling sorting facilities or specific recycling brokers.

⁶ <https://www.seattle.gov/utilities/protecting-our-environment/safe-and-clean-seattle/clear-alleys>

⁷ Seattle businesses can sign up for collection of recycling (up to two 90-gallon carts collected every other week) or food and yard waste (up to two 90-gallon carts collected weekly).

Commercial customers have several options for food and yard waste collection. They may use the same collector that provides garbage or recycling collection service to their business or another private food and yard waste hauler. Typically, the collected food and yard waste go straight to the compost facility and not to a City-owned transfer facility. Seattle offers a small business food waste service of two curbside carts, serviced weekly, at the same cost as the multifamily food and yard waste cart.

Clear Alleys Program

Many public alleys downtown and in neighborhood business districts serve as storage spaces for solid waste dumpsters due to building space and/or access constraints. Having dumpsters in high-traffic public right-of-way alleys poses many problems, such as providing cover for uncivil and illegal behaviors, impeding pedestrian and vehicular traffic use, restricting access required by the Americans with Disabilities Act (ADA), and attracting illegal dumping.

As replacement for dumpsters in public alleys, Seattle's Clear Alley Program (CAP) offers a prepaid bag system for businesses, apartments, and condominiums in designated business districts that do not have storage space in their buildings for carts. All businesses in Business Improvement Areas (BIAs) must use CAP services, if designated by BIA vote. CAP services are currently in place in five Seattle BIAs. CAP services are also available for subscription throughout Seattle for customers that require them due to space constraints.

Seattle's two collection contractors provide CAP service to all commercial and multifamily customers in CAP-designated areas. Bags are used for garbage and recycling and are collected more often than carts. Recycling bags are used for plastic, paper, aluminum, and limited amounts of glass. If the customer produces a high volume of glass, they can choose to use a cart for recycling even in CAP-designated areas. Customers use carts for food and yard waste collection in CAP-designated areas. Customers in BIAs are also able to self-haul garbage to Seattle's transfer stations.

Customers can subscribe to commercial food and yard waste collection service in CAP areas, which comes in the form of 96-gallon green carts from Seattle's collection contractors. Locking lid service is strongly advised and may sometimes be required by a City solid waste inspector, depending on whether the property has problems with contamination, such as garbage deposited by passersby in areas with high foot traffic.

SPU and collection contractor staff regularly provide education, outreach, and enforcement activities in CAP areas to address illegal dumping and other issues.

Performance of City-Contracted Collection Services

SPU measures the performance of contracted collection service based on missed collections, timely container delivery, customer satisfaction, and service equity. The following sections describe current monitoring and metrics that SPU uses to track its collection programs. To ensure reliable collection, SPU measures missed collections and on-time container delivery rates.

Collection reliability metrics are currently presented together for all container types; however, differences in collection infrastructure for these sectors (for example, compactors and dumpsters for multifamily versus carts for single-family) can affect the performance of the collection system. As multifamily housing and multi-use buildings grow in number, measuring reliability separately may help SPU ensure that equitable services are available across residential sectors.



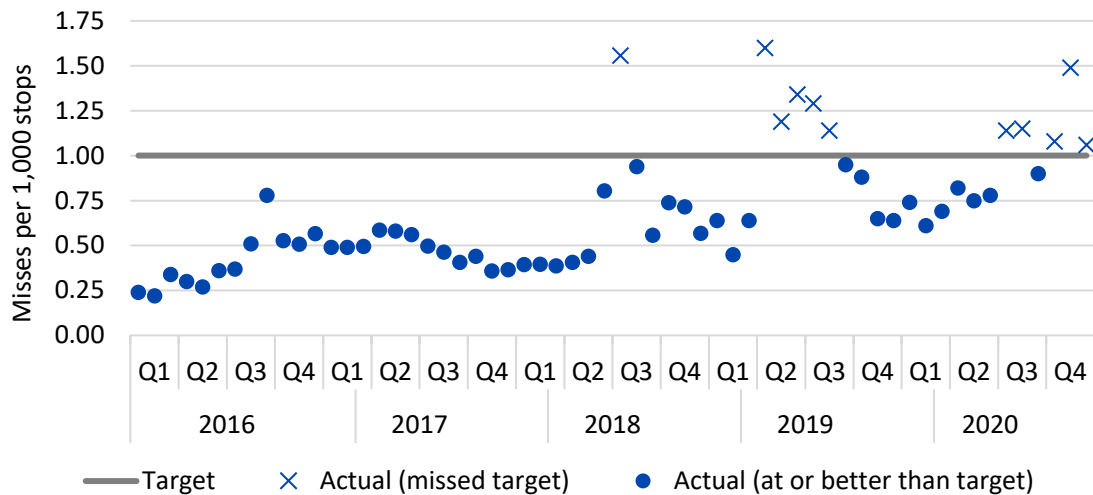
A city-contracted collection truck on a residential street (Source: SPU Image Library)

Missed Collection

SPU tracks two key metrics to measure collection reliability for City-contracted collections: missed collections and subsequent pickup of missed containers within 24 hours. Reliability is measured across all container types (carts, cans, and dumpsters) and all waste streams (recycling, food and yard waste, and garbage). SPU's goal is to miss fewer than one collection per 1,000 stops (<0.1%).

Figure 6.2 shows missed collections rates for all residential container types and waste streams from 2016 to 2020. SPU met its goal in all but one month during 2016–2018. SPU's contracted collectors missed this goal five times in 2019 and five times in 2020.

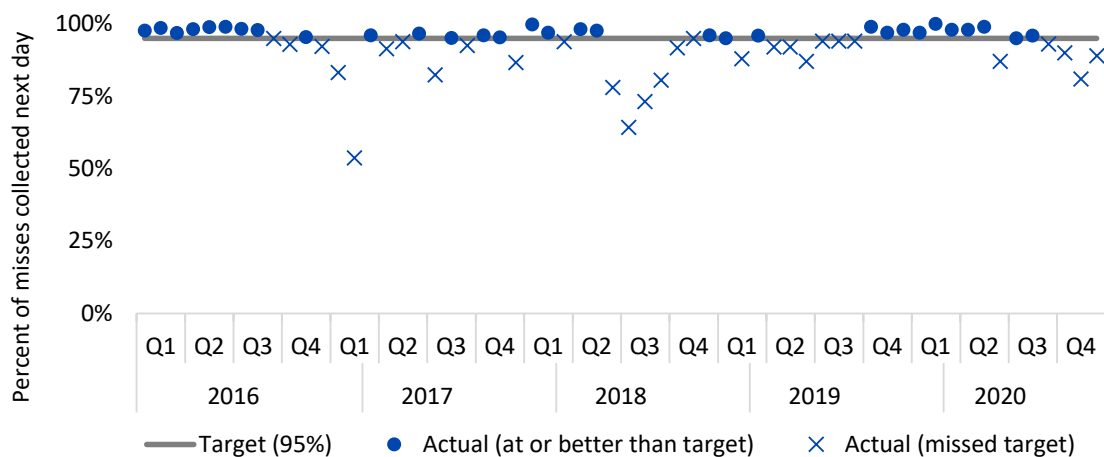
Figure 6.2 Misses for All Residential Container Types and Waste Streams



Source: City-contracted collector reports provided to SPU.

SPU also tracks whether collectors promptly pick up reported missed collection, with a goal to pick up 95% of them within 24 hours. Figure 6.3 shows missed collections picked up the next day. In 2016–2020, collectors met the goal approximately half of the time.

Figure 6.3 Percent Misses Picked Up within 24 Hours for All Container Types and Waste Streams



Source: City-contracted collector reports provided to SPU

To evaluate equity of collection services across Seattle, several years ago SPU conducted a statistical study to identify any relationship between missed single-family solid waste

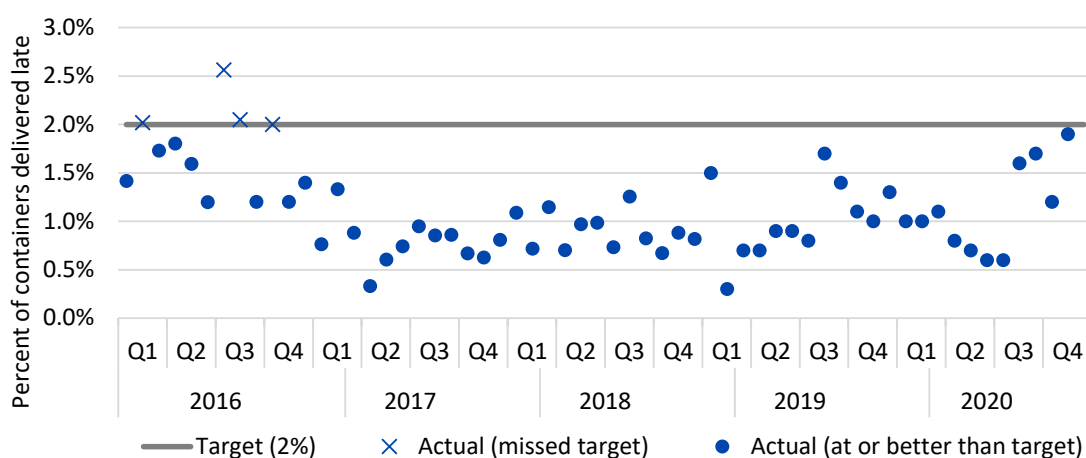
collections and the percentage of people of color in a neighborhood. SPU found that the collection miss rate was driven by three key factors: customer density, frequency of special services including backyard collection, and the ratio of multifamily to single-family residents. After controlling for these factors, SPU found no statistically significant relationship between missed collections and percentage of people of color in a neighborhood.

SPU has used the findings from this study to inform collection contracts from 2009 through 2019. SPU now has a more comprehensive set of performance incentives and reviews some performance data by neighborhood or demographics. For example, SPU has begun mapping missed collections and “Oops” tag (described in Chapter 9, *Outreach, Education, Enforcement, and Compliance*) distribution by zip code. In addition, current collection contracts require collection service providers to offer culturally competent and in-language outreach to customers.

Container Delivery

Figure 6.4 shows the percentage of containers delivered late, meaning the delivery did not arrive within five business days. SPU’s goal is to not exceed 2% late deliveries (that is, to deliver containers within five days at least 98% of the time). In 2016–2020, the container delivery goal was met 93% of time, missing the target only four times in 2016.

Figure 6.4 Percent of Containers Delivered Late for All Container Types and Waste Streams



Source: City-contracted collector reports provided to SPU.

Overall Customer Satisfaction

SPU periodically surveys customer on their satisfaction with garbage, recycling, and food and yard waste collection services. Table 6.5 shows overall satisfaction from the most recent published surveys. SPU's goal is to score no lower than a "5" on a 1 to 7 scale. The most recent residential survey was 2015.⁸ The most recent published results for commercial customers are from 2011.⁹ SPU exceeded its goal for both surveys. SPU plans to conduct a new residential customer satisfaction survey in 2022.

Table 6.5 Customer Satisfaction with Collection Services

SATISFACTION LEVEL†	
Residential – 2015 Survey	
Garbage Pickup	6.04
Recycling Services	6.00
Yard and Food Waste Pickup	6.02
Commercial – 2011 Survey	
Garbage Pickup	5.67
Recycling Services*	5.69
Yard and Food Waste Pickup	5.45

Source: Seattle Public Utilities, "2015 Residential Customer Survey" and "2011 Commercial Garbage Customer Survey."

**Mix of City-contractor and private service*

† Scale = 1 (not satisfied) to 7 (very satisfied)

Self-Haul to City Transfer Stations

As an alternative to curbside collection service, commercial customers may haul their own garbage, clean yard and wood waste, and recyclables to either of the two City-owned transfer stations, a practice referred to as "self-hauling." Businesses and nonprofit organizations may also self-haul garbage to designated private transfer stations in Seattle. They may also take recyclables or yard waste to various recycling or food and yard waste processors. For some

⁸ Seattle Public Utilities, prepared with FBK Research, "2015 Residential Customer Survey," April 2016.

⁹ Seattle Public Utilities, prepared by PRR, Inc., "2011 Commercial Customer Survey," 2016, *Results from a commercial customer satisfaction survey conducted in 2021 were not available at the time of writing.*

businesses, self-hauling all their waste rather than subscribing to garbage service offers the greatest convenience. For instance, mobile businesses, such as landscapers, roofers, remodelers, and food trucks, often have waste as a by-product of their work. SPU provides solid waste services to these customers at the transfer stations.

When residential customers have large quantities of materials or have materials unsuitable for curbside collection, they also may self-haul them to City-owned recycling and disposal stations. For example, home remodelers frequently self-haul construction waste to Seattle's transfer stations. However, SPU encourages these customers to use regular and special curb services whenever possible to minimize transfer station traffic. Curb services are often the most affordable for the customer.

SPU accepts the following materials for recycling at the transfer stations: scrap metal, metal cans, plastic and glass bottles and jars, paper, and cardboard. At the North Transfer Station, SPU partners with the nonprofit organization Goodwill to collect certain reusable goods. A Goodwill representative inspects all items for donation onsite before accepting them. Items not accepted for donation can be disposed of (for a fee) at the transfer station. Items accepted for reuse at the North Transfer Station include:

- Bicycles
- Clothing and linens in good condition or worn out, but no wet items
- Electronics, including televisions, computers, monitors, and small electronics
- Household items in good condition, such as dishware, books, and games
- Small furniture in good condition, but no large furniture

SPU also accepts some other wastes that require special handling, many of which are banned from the garbage. These other items are noted in Table 6.6.

Table 6.6 Other Wastes Requiring Special Handling Collected at the Transfer Stations

MATERIAL	ACCEPTANCE REQUIREMENTS	FEE
Appliances	Appliances include old refrigerators, freezers, and air conditioners. Up to 2 items per trip.	\$
Automotive motor oil	Up to 5 gallons and oil filters per trip.	×
Car batteries		×
Household batteries	Rechargeable and lithium batteries	×
Cell phones		×
Contaminated soils	Large quantities can be accepted, if accompanied by a Waste Clearance form from Public Health — Seattle & King County. Call (206) 263-8528.	\$
Large furniture and household goods		\$
Mattresses		\$
Sharps, syringes, and lancets	Must be in puncture-proof containers.	×
Tires	Up to 4 tires per trip.	\$
<div> <div>\$</div> <div>Fee</div> <div>×</div> <div>No Fee</div> </div>		

Seattle's transfer station employees monitor for items prohibited from the garbage to keep them from entering the facilities (described in Chapter 7, *Solid Waste Transfer Processing Disposal and Emergency*). Signage at the scale houses and throughout the stations informs users of prohibited wastes. Workers visually observe all loads and refuse access to vehicles carrying prohibited wastes. If a prohibited material does enter the facility, employees remove it from the tipping areas (if they can do so safely) or ensure the material is appropriately managed.



Self-haulers bring items to the SPU scale house (Source: SPU Image Library)

SPU provides up-to-date information to its customers on where and how to properly dispose of wastes that require special handling or not accepted at transfer stations on the [SPU website](#) and on its [“Where Does It Go?” webpages](#).^{10 11} King County provides up-to-date information on its [“What Do I Do With..?” webpages](#), which SPU customers can use.¹² Chapter 5, *Recycling and Composting Policy and Markets*, describes collection options for items collected by extended producer responsibility and voluntary product stewardship programs. Public Health–Seattle & King County regulates biomedical waste collectors.

¹⁰ <http://www.seattle.gov/utilities/your-services/collection-and-disposal/garbage/hazardous-waste-items>

¹¹ <https://www.seattle.gov/utilities/your-services/collection-and-disposal/where-does-it-go#/a-z>

¹² <https://info.kingcounty.gov/services/recycling-garbage/solid-waste/what-do-i-do-with/>

Recommendations

Seattle plans to continue its current collection services and makes four recommendations to improve collection services and access.

Rec 22. Conduct research to inform future collection, processing, and disposal contracts

SPU will continue to conduct research to inform future contracts to support Seattle's waste-related goals and metrics. Research should include new methods, technologies, or other elements to consider including in future collection contracts for residential and commercial sectors. SPU should conduct similar research to inform processing and disposal contracts. This type of research is an ongoing practice and priority for SPU, and results inform future rate reviews. Rate structures are discussed in Chapter 10, *Administration and Financing of the Solid Waste System*.

Rec 23. Adopt collection infrastructure incentives or requirements in multifamily construction to ensure tenants have sufficient solid waste services and convenient access to solid waste containers

SPU will continue efforts to update the land use code to make collection more convenient and ensure adequate infrastructure for recycling in new multifamily construction. Increasing access and convenience to collection increases diversion of recyclable materials, food waste, and some yard waste.

Specifically, SPU will consider requirements to pair garbage, recycling, and food and yard waste collection (co-located collection) and provide incentives for or require multifamily buildings to have on-floor collection options for garbage, recycling, and food and yard waste. On-floor collection could be implemented through chute collection (one chute per collection stream), designated space on every floor for collection containers, or a combination of chutes and containers.

Having co-located, on-floor solid waste collection increases equity for multifamily residents by increasing access and convenience, similar to that of single-family residents. If successfully implemented, new buildings are likely to save money through reducing solid waste costs (more recycling, more composting, and less garbage).

Rec 24. Explore collection infrastructure requirements for new construction of townhomes and live-work units

SPU should explore requirements to improve future collection infrastructure, access, and service levels for recycling and food and yard waste in other types of new construction that are mix residential and commercial uses or are otherwise not defined as multifamily properties. This program includes evaluating storage and collection methods for future townhomes, such as shared containers, and live-work units (spaces where a person both lives and works).



Recycling, food and yard waste, and garbage collection in a residential alley (Source: SPU Image Library)

Rec 25. Improve alley and public right-of-way access for collection vehicles

SPU should work with other City departments to ensure alley and right-of-way access for collection vehicles to enhance the safety of collection activities and improve street access and street use. This work would require interagency assistance from both Seattle Department of Transportation (SDOT) and Seattle Department of Construction & Inspections (SDCI), specifically:

- **Assistance from SDOT to address non-compliance identified by SPU's Solid Waste Inspections & Compliance team.** The Solid Waste Inspections & Compliance team documents infractions where alleys and roadways are not in compliance with collection requirements; however, addressing non-compliance would be the responsibility of SDOT.
- **Ongoing coordination with SDCI and SDOT** in permitting and reviewing new development to ensure solid waste services meet all code requirements for all agencies and reduce the impact of solid waste collection on alleys and in the right-of-way.

Litter and Illegal Dumping Mitigation in the Public Right-of-Way

This section focuses on “Clean City” programs that mitigate litter, illegal dumping, and other pollution from accumulating in the public right-of-way. The public right-of-way includes roadsides, open streets, and paved alleys. Clean City programs are located within the Clean City Division of SPU’s People, Culture, and Community Branch. Clean City programs are supported by the City’s General Fund and are managed separately from solid waste functions in the Solid Waste Utility.

The Clean City programs are driven by service requests. People report junk, garbage, or debris dumped illegally in the public right-of-way. Illegal dumping can be reported by calling SPU’s hotline at (206) 684-7587, or using the [Find It, Fix It mobile app](#).¹³ Illegal dumping inspectors respond to reports of illegally dumped materials in the public right-of-way and coordinate cleanup with contractors. Litter and dumped junk, garbage, or debris are by collected by vendors contracted by the Clean City programs.¹⁴

Events such as the COVID-19 pandemic, growth in the unsheltered population, and the opioid epidemic have contributed to a noticeable increase in the number of service request received about litter, illegal dumping, and sharps such as syringes, needles, and lancets. Consequently, Seattle launched the “[Clean City Initiative](#)” in December 2020 that invests \$3 million into new and existing programs to clean up litter and garbage across the City.¹⁵ The Clean City Initiative pulls together and expands efforts from SPU, Seattle Parks and Recreation, Office of Economic Development, and Seattle Department of Transportation to respond to a maintenance backlog and to address growing community concerns and associated public health and safety risks. Clean City programs central to the Clean City Initiative include:

- Public place litter and recycling
- Litter abatement
- Encampment trash and recreational vehicle garbage remediation
- Medical sharps or needle collection

¹³ <http://www.seattle.gov/customer-service-bureau/find-it-fix-it-mobile-app>

¹⁴ Note that response to and management of waste accumulation and junk storage on private property is handled by the Seattle Department of Construction & Inspections.

¹⁵ <https://www.seattle.gov/parks/about-us/special-initiatives-and-programs/clean-city-initiative>

The performance of Clean City programs for trash and litter remediation is measured based on metrics, including:

- Quantity of material collected, such as pounds of litter, sharps, or large items collected
- Number of service requests
- Response time to addressing service requests
- Percentage of illegal dumping removed within 10 business days from public property

Each of the Clean City waste-related programs is detailed in the sections that follow, along with the City's community-led cleanup programs, Adopt-a-Street and Spring Clean.

Public Place Litter and Recycling

The Public Place Litter and Recycling program provides collection and disposal of garbage and recycling from containers located along public streets in commercial areas and communities with high pedestrian traffic. Roughly half of all public place litter cans are paired with a recycling can. The program includes about 1,000 collection cans for garbage and recycling. Program staff track and report instances of illegal dumping, trash overflow, and graffiti on or around cans. Seattle's contracted commercial garbage collectors collect waste from the public place litter and recycling receptacles on a [regular schedule](#).¹⁶



City public place recycling can (Source: Pat Kaufman)

Litter Abatement Program

An analysis of community feedback and solid waste service data showed that some communities in Seattle experience significant issues with litter. SPU implemented a Litter Abatement Pilot to test Seattle's litter abatement services, tools, and service levels, and determine the best way to reduce litter.

Since July 2016, SPU has provided additional litter services to International District/Chinatown, Little Saigon, Ballard, University District, Licton Springs, Central District, South of Downtown (SODO), Rainer Beach, Hillman City, Othello, and South Park through the litter abatement pilot in response to community concerns.

¹⁶ <https://www.seattle.gov/Documents/Departments/SPU/EnvironmentConservation/LitterCanPickup2019.pdf>

Litter Abatement Program activities include litter cleanup on streets and sidewalks, collection and disposal of sharps, increased cleanup of illegal dumping from the neighborhood core and sidewalk area, and educational and outreach activities to community groups and BIAs.

In 2020, the Litter Abatement Pilot became a full-fledged program. Under the Clean City Initiative, SPU added 10 new litter routes to the existing eight community litter routes, more than doubling efforts to collect litter and illegally dumped trash throughout the city. Each litter route covers about 50 blocks and is serviced twice a week. Maps of the [Litter Abatement Program routes](https://www.seattle.gov/Documents/Departments/ParksAndRecreation/AboutUs/SPU%20Litter%20Abatement%20Program%20Expansion%20Map.pdf) can be accessed online.¹⁷

Under the Clean City Initiative, SPU continues to service 18 litters routes and will work with other city partners to identify and service areas experiencing significant challenges regarding litter, illegal dumping, and trash remediation on a weekly basis.



Litter abatement team removing discarded carpet abandoned on city sidewalk (Source: SPU Image Library)

¹⁷<https://www.seattle.gov/Documents/Departments/ParksAndRecreation/AboutUs/SPU%20Litter%20Abatement%20Program%20Expansion%20Map.pdf>

Encampment Trash Removal

SPU developed an encampment trash removal pilot program in 2016 to test service options and effectiveness for garbage collection near unsanctioned homeless encampments. As part of this pilot, SPU provided preventive weekly and on-call garbage service in designated areas near the encampments to address growing community concerns and associated public health risks from trash accumulation and improperly disposed needles. SPU also tested the use of authorized purple bags for garbage collection and tracked participation rates and compliance.



Purple garbage bags used for encampment trash removal (Source: Dave Hare)

In 2017, the pilot engaged with a variety of community outreach partners including the Union Gospel Mission and the Seattle Police Department's Community Police Teams to help distribute bags on a weekly basis. Today, the Encampment Trash Program provides proactive and preventive weekly and on-call garbage service to 30 selected unsanctioned homeless encampments. SPU provides purple garbage bags for encampment residents to use to collect garbage surrounding unsanctioned homeless encampments. In service of people living

unhoused, Seattle Parks and Recreation, SDOT, and SPU will continue to collect trash from encampments across the city through this expanded Encampment Trash Program and through onsite garbage collection under the Clean City Initiative.

Recreational Vehicle Remediation

Launched in 2018, the Recreational Vehicle (RV) Remediation program partners with the Seattle Police Department, Seattle Parks and Recreation, SDOT, Seattle Finance and Administrative Services, and Seattle's Office of the Mayor to address issues with RVs parked illegally. The program focuses on removing trash and structurally unsound RVs from the public right-of-way.

Sharps Collection Program

Seattle's [sharps collection program](http://www.seattle.gov/utilities/protecting-our-environment/safe-and-clean-seattle/sharps-collection) began in 2016 to provide safe disposal of sharps (including syringes, needles, and lancets).¹⁸ The program includes services to remove and collect sharps.

¹⁸ <http://www.seattle.gov/utilities/protecting-our-environment/safe-and-clean-seattle/sharps-collection>

The program removes sharps from the public right-of-way within 24 hours of receiving a service request. SPU receives these service requests through the Find It, Fix It mobile app and the Sharps Hotline (via an online form or phone number). SPU responds to service requests seven days per week.

Seattle has installed secure sharps disposal boxes in several locations throughout Seattle, including in the public right-of-way and City-owned parks. As of the time of writing, Seattle has five small boxes that accept single sharps and 19 large boxes that accept containers up to two liters each. Boxes are currently serviced weekly. SPU provides trainings on safe collection and handling of sharps to community groups, City departments, and individuals. The litter abatement, encampment trash removal, and RV remediation programs include needle collection.

Community-Led Cleanups

SPU provides several community-centered programs designed to offer Seattleites options to reduce litter and illegal dumping in their communities.

Adopt-a-Street

Seattle's [Adopt-a-Street](http://www.seattle.gov/utilities/protecting-our-environment/volunteer/adopt-a-street) program provides residents, businesses, and community groups with supplies to remove litter and debris from Seattle's streets.¹⁹ Services includes free removal of solid waste cleaned up from sidewalks year-around. Volunteers can conduct a one-time cleanup or agree to adopt one mile or more for a minimum of two years. Seattle provides street signs that recognize two-year adopters. Program staff track and report the number of Adopt-a-Street volunteers and volunteer hours dedicated to ground litter collection.

¹⁹ <http://www.seattle.gov/utilities/protecting-our-environment/volunteer/adopt-a-street>



Adopt-A-Street volunteers pose for a photo during litter cleanup (Source: SPU Image Library)

Spring Clean

[Spring Clean](http://www.seattle.gov/utilities/protecting-our-environment/volunteer/spring-clean) is an annual program (April through May) that supports community-developed projects in the public right-of-way and on other City-owned properties.²⁰ SPU provides supplies (including trash bags, safety vests, and gloves) and solid waste disposal. Program staff track and report the total number of projects, number of volunteer hours dedicated to cleanup, and estimated number of pounds of materials collected. Spring Clean has been on hold since March 2020 due to the COVID-19 pandemic.

²⁰ <http://www.seattle.gov/utilities/protecting-our-environment/volunteer/spring-clean>

Recommendation

Because expansion of Clean City programs depends on funding from the City's General Fund or other outside sources, SPU recommends this action for the long-term, meaning five or more years from now. If additional funding becomes available sooner, SPU could implement this enhancement to the Clean City programs during the current planning period.

Rec 26. Expand the Clean City education campaign to increase awareness of the City's litter and cleanup programs

This strategy involves expanding ongoing education about Clean City programs to support program goals, increase awareness about services, and assess community satisfaction and expectations. As part of expanded education, SPU should consider the following actions:

- Research and consider implementing an anti-litter education campaign
- Provide in-language customer education on how to use tools like Find It, Fix It app and explore whether the app itself can be offered in languages other than English
- Expand surveys of customer expectations and satisfaction with an analysis of survey findings by respondent demographics to identify racial disparities

Hazardous Waste Drop-off

As a partner in the regional [Hazardous Waste Management Program in King County](#), SPU operates two household hazardous waste collection facilities to handle and safely dispose of household hazardous waste (HHW) and moderate risk waste (MRW) from residents and small quantity generators.^{21 22} One site is co-located at the South Transfer Station and the other operates as a stand-alone location near Aurora Avenue North and North 125th Street.

Table 6.7 City-Owned Permitted Moderate Risk Waste Facilities

FACILITY	LOCATION
North Household Hazardous Waste Facility	12550 Stone Way N
South Household Hazardous Waste Facility	8105 2nd Ave S

²¹ A small quantity generator is a business that produces less than 220 pounds of hazardous waste per month, produces less than 2.2 pounds of extremely or acutely hazardous waste per month, and stores less than 2,200 pounds of hazardous waste at any time.

²² <https://kingcountyhazwastewa.gov/en/about-us>



The South Household Hazardous Waste Facility drop-off (Source: Hazardous Waste Management Program)

Moderate risk waste is hazardous waste generated by residents and in small quantities by businesses and institutions, further defined in Washington State's Hazardous Waste Management Act ([Revised Code of Washington 70A.300.010](#)).²³

Moderate risk waste includes many common materials used in cleaning, yard care, and automotive repair and maintenance that contain toxic, flammable, reactive, or corrosive ingredients. [Seattle Municipal Code 21.36.026](#) prohibits disposing of moderate risk waste in garbage as these products can pose a threat to human health and the environment when disposed of improperly.²⁴ Though the amount of hazardous waste coming from a single house or business may be small, the total amount from 2.2 million residents and more than 75,000 businesses in King County can harm public health and the environment if not properly managed.

The Hazardous Waste Management Program operates two additional household hazardous waste collection sites that Seattle residents and small quantity generators may use: the Factoria Household Hazardous Waste Facility and the Auburn Wastemobile. SPU staff working on the

²³ <https://apps.leg.wa.gov/rcw/default.aspx?cite=70A.300.010>

²⁴ https://library.municode.com/wa/seattle/codes/municipal_code?nodeId=TIT21UT_SUBTITLE_IIISOWA_CH21.36S_OWACO_SUBCHAPTER_IISOWACO_21.36.060GACAAI

Hazardous Waste Management Program provide countywide at-home collection of hazardous waste for elderly or disabled individuals who are unable to drop off hazardous materials. Reusable products with a low potential for environmental harm and low toxicity are donated to nonprofit organizations and community groups.

The Hazardous Waste Management Program manages hazardous waste for jurisdictions throughout King County, which includes Seattle, seven other cities, two tribes, and unincorporated areas.²⁵ Partnering local governments work in multi-agency teams, drawing on their strengths and expertise to protect public health and the environment from harmful toxics. The Hazardous Waste Management Program's mission is to protect and enhance public health and environmental quality in King County by reducing the threat posed by the production, use, storage, and disposal of hazardous materials.

The King County Board of Health authorizes the Hazardous Waste Management Program and sets the program's annual fees used to fund the program ([BOH Code 11.04](#)).²⁶ The Hazardous Waste Management Program has an annual budget of approximately \$22 million and is funded through local hazardous waste fees, which include surcharges applied to Seattle's solid waste collection customers and Seattle's waste transfer station customers. The Hazardous Waste Management Program provides comprehensive hazardous waste management planning for the region. As of this writing, the Washington State Department of Ecology has approved the [latest draft management plan](#).²⁷

²⁵ Seattle Municipal Code [10.76.010](#) approved

²⁶ <https://kingcounty.gov/depts/health/board-of-health/~media/depts/health/board-of-health/documents/code/BOH-Code-Title-11.ashx>

²⁷ <https://www.kingcountyhazwastewa.gov/en/about-us/about-us-library?class=PROGRAM-PLANS,&doc-search=2021%20Hazardous%20Waste%20Management%20Plan>