

Chapter Summaries

Overview of 2022 Solid Waste Plan Update

Required by state law, Seattle's 2022 Solid Waste Plan Update: Moving Upstream to Zero Waste (2022 Plan Update) guides how Seattle will manage and finance solid waste services and facilities over the next 5 years, and projects system management needs over 20 years. The 2022 Plan Update:

- → Highlights historic solid waste trends, including progress toward goals, and details solid waste system projections
- → Describes how Seattle advances waste prevention and diversion from landfill through policy, customer outreach and education, investments in the circular economy, and enforcement of solid waste rules, regulations, and contracts
- → Describes the solid waste system and how Seattle provides essential waste collection, recycling, composting, and disposal services to 750,000 people in the city
- → Recommends 39 actions for Seattle to continue innovating in solid waste management
- → Suggests creating new goals consistent with Seattle's growing emphasis on reducing waste at the source

Note: Recommendations cover either a short-term planning period within the next five years, or a long-term planning period of five or more years. Numbers note the chapter and page within the 2022 Plan Update.

Chapter 1: Developing the 2022 Solid Waste Plan Update

Summary:

This chapter provides background for how Seattle Public Utilities (SPU) developed the 2022 Plan Update, which emphasizes waste prevention and reducing the environmental impacts of waste. It highlights the following elements influencing solid waste planning in Seattle since 2013, when the City Council adopted the last comprehensive solid waste plan:

- Key regulations, policies, and plans
- Material sustainability and responsible recycling frameworks
- Goal areas of the 2022 Plan Update, spotlighting racial equity and risk and resiliency, and offering potential metrics for each of the goal areas
- Key stakeholder involvement, from the Solid Waste Advisory Committee to City Council

This chapter then describes how SPU developed recommendations in the 2022 Plan Update using both qualitative criteria and input, and quantitative analysis and projections. The chapter concludes by discussing the development of metrics and targets aligned with a focus on waste prevention.

Recommendation:

1. Lead with race and incorporate racial justice in solid waste programs, education, and outreach in support of SPU's commitment to providing racially equitable, inclusive, and culturally competent services (short-term, 1.24).

Chapter 2: Maximizing and Measuring Impact: Moving Upstream, Beyond the Recycling Rate

Summary:

To explain the evolution of SPU's solid waste management approach toward one in which SPU examines how materials are used throughout their life cycle to minimize waste, reduce environmental and public health impacts, and conserve natural resources, this chapter discusses:

 The history of SPU's data-driven approach to solid waste planning and target setting for overarching solid waste goals.



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- The origins of, progress toward, and Seattle's changing recycling goals.
- The limitations of the recycling rate on measuring the impacts of solid waste diversion and prevention programs.

This historical information provides context for recommendations to develop new overarching metrics and targets in the 2022 Plan Update to measure the progress of "upstream" activities to prevent waste and reduce the environmental impacts of waste.

Recommendations:

- 2. Keep developing overarching goals consistent with waste prevention and reduction activities instead of continuing to emphasize recycling rate goals focused on diversion (short-term, 2.13).
- 3. Expand solid waste data analytics, metrics, and evaluation to improve assessment of services and operations (short-term, 2.25).

Chapter 3: Solid Waste Data and Trends

Summary:

This chapter describes the data Seattle collects and how it analyzes them to inform planning for facilities, programs, and policies. The chapter covers:

- The types and sources of waste.
- How the city gathers and measures waste data.
- Key indicators impacting waste generation and access to equitable service.
- Key trends and projections in City waste generation and recycling (i.e., commercial, single-family, self-haul, and multifamily waste).
- Key trends and projections in construction and demolition (C&D) debris waste generation and recycling.
- Waste composition study findings.

Chapter 4: Waste Prevention and Reuse

Summary:

This chapter covers SPU's current waste prevention and reuse programs and policy, and recommendations for future action. The chapter is organized around these program areas:

- Food waste prevention and recovery
- Product-related waste prevention (excluding extended producer responsibility, or EPR)
- Waste-Free Communities Matching Grant
- Natural yard care
- Green purchasing
- Reuse and repair

Recommendations:

To advance waste prevention in Seattle:

- 4. Prioritize and support waste prevention with program research, data analysis, and metrics (short-term, 4.6).
- 5. Increase community awareness of waste prevention through coordinated outreach (short-term, 4.7).
- 6. Expand food waste prevention to reduce food waste (short-term, 4.17).
- 7. Expand efforts to rescue safe, edible food from the waste stream by getting it to those that need it most (short-term, 4.18).
- 8. Reduce single-use items and promote durable or reusable alternatives (short-term, 4.30).



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- 9. Expand support for community organizations working to prevent waste (short-term, 4.34).
- 10. Expand support of the City's sustainable and green purchasing policies (short-term, 4.42).
- 11. Explore and expand market opportunities for reused material and repair services (short-term, 4.46).
- 12. Promote and support waste prevention for textiles and monitor emerging textiles recycling technologies (long-term, 4.47).

Chapter 5: Recycling and Composting Policy and Markets

Summary:

This chapter describes Seattle's response to changing recycling markets in 2018. The City's response focuses on taking a broad view of the impacts of recycling (and composting) to minimize them and to build a more responsible, circular recycling system locally. Strategies to develop this system include:

- Improving recycling quality
- Building local recycling and composting markets and infrastructure
- Advocating for voluntary product stewardship measures
- Advancing extended producer responsibility (EPR) legislation

Recommendations:

To increase, improve the quality of, and/or reduce the unintended consequences of recycling:

- 13. Advocate for responsible recycling policies recommended by the Responsible Recycling Task Force (short-term, 5.14).
- 14. Continue and expand efforts to reduce the amount of contamination, or non-recyclable material, in the recycling and food and yard waste (short-term, 5.14).
- 15. Support market and infrastructure development for recycling (short-term, 5.18).
- 16. Continue to explore and implement product stewardship policies and programs that require producers, manufacturers, and/or retailers to take back and recycle the products they sell (short-term, 5.35).
- 17. Continue to support and expand industry-led take-back of plastic wrap and bags (short-term, 5.36).

To increase and/or improve the quality of composting:

- 18. Require all single-use food service packaging to be compostable and harmonize acceptance standards for compostable products (short-term, 5.40).
- 19. Continue to refine and develop strategies to keep more food waste and compostable paper out of the garbage (short-term, 5.41).
- 20. Continue to support market development for compost products (short-term, 5.41).
- 21. Assess options for diaper and pet waste recovery (long-term, 5.42).

Chapter 6: Solid Waste Handling, Collection, and Removal

Summary:

This chapter covers operations and facilities used for waste collection and removal at home, work, and in the public-right-of-way. It discusses how SPU contracts for collection, the services provided to customers, as well as solid waste-related Clean City programs related to litter and illegal dumping abatement in the public right-of-way.

Recommendations:

22. Conduct research to inform future collection, processing, and disposal contracts (long-term, 6.22).



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- 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 (short-term, 6.22)
- 24. Explore collection infrastructure requirements for new construction of townhomes and live-work units (short-term, 6.23).
- 25. Improve alley and public right-of-way access for collection vehicles (short-term, 6.23).
- 26. Expand the Clean City education campaign to increase awareness of the City's litter and clean-up programs (long-term, 6.30).

Chapter 7: Solid Waste Transfer, Processing, Disposal, and Emergency Management

Summary:

This chapter covers operations and facilities for transfer, processing, and disposal, and describes Seattle's emergency management planning to ensure services continue even in times of crisis. Topics include:

- North and South Transfer Stations
- Recycling and composting processing
- Long-haul and disposal of garbage
- Managing historic landfills
- Emergency management

Recommendations:

27. Continue to explore opportunities for adaptive reuse of historic landfills, including opportunities to control costs at closed landfills and to bring the land into productive use (short-term, 7.25).

Chapter 8: Construction and Demolition Debris

Summary:

The Construction and Demolition (C&D) debris sector typically generates more waste than any other customer sector for which SPU tracks tonnage data. This chapter describes Seattle's policies aimed at improving C&D debris recycling and details the C&D debris waste management system—from collection to recycling, reuse, and beneficial use, to final disposal. The chapter also discusses C&D debris waste diversion and prevention efforts, along with recommendations to enhance them.

Recommendations:

- 28. Expand construction and demolition debris industry outreach and education (short-term, 8.7).
- 29. Improve enforcement of and incentives for compliance with construction and demolition system rules (short-term, 8.7).
- 30. Promote salvage and deconstruction for reusable building materials (short-term, 8.9).
- 31. Require deconstruction (instead of demolition) for select project sizes and/or project types to increase construction and demolition debris recovery (short-term, 8.9).
- 32. Expand recycling market development for construction and demolition debris to support diversion of these materials from landfill (short-term, 8.21).
- 33. Enhance diversion of construction and demolition debris at transfer stations (short-term, 8.21).



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Chapter 9: Education, Outreach, Enforcement, and Compliance Support

Summary:

This chapter describes the complementary relationship between customer outreach/education programs and solid waste inspections/compliance activities. The chapter describes communications channels SPU uses to provide customers with solid waste information, outreach, and education by customer sector. It also covers the work of the SPU's Solid Waste Inspections and Compliance team to inform customers of and enforce solid waste rules and regulations and to support vendor compliance with the City's contracts.

Recommendations:

To expand and enhance customer communications and outreach and education efforts that promote waste prevention and diversion behaviors, SPU recommends to:

- 34. Continue and expand use of large, color-coordinated, multilingual, and icon-based container decals to encourage proper sorting of waste (short-term, 9.11).
- 35. Continue and expand use of available metrics to inform outreach strategy and measure outcomes (short-term, 9.19).
- 36. Continue participating in the regional Communication Consortium to unify solid waste messaging between Seattle and King County municipalities (short-term, 9.20).
- 37. Expand waste prevention and diversion outreach and education in schools (short-term, 9.21).

To boost compliance with solid waste rules, SPU recommends:

38. Expand efforts to increase compliance with solid waste code and requirements across customer sectors (short-term, 9.30).

Chapter 10: Administration and Financing of the Solid Waste System

Summary:

This chapter explains the management of Seattle's solid waste system. It discusses how Seattle finances operations and maintenance of the system through customer rates and capital projects through debt financing in the form of bonds. As part of discussion of financing capital projects, this chapter includes SPU's six-year construction and capital acquisition program for solid waste handling and the estimated long-range needs for solid waste facilities 20 years in the future.

Recommendation:

39. Continue to regularly review rates to ensure they provide incentives for program success, are set equitably, and balance affordability and program costs (long-term, 10.16).