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Chapter 1 - Report Summary & Recommendations

Executive Summary and Recommendations for Local Government Funding for Solid Waste in Washington State

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Publication 23-07-048 -Chapter 5 - Fiscal Impacts - Local Government Funding for Solid Waste in Washington State
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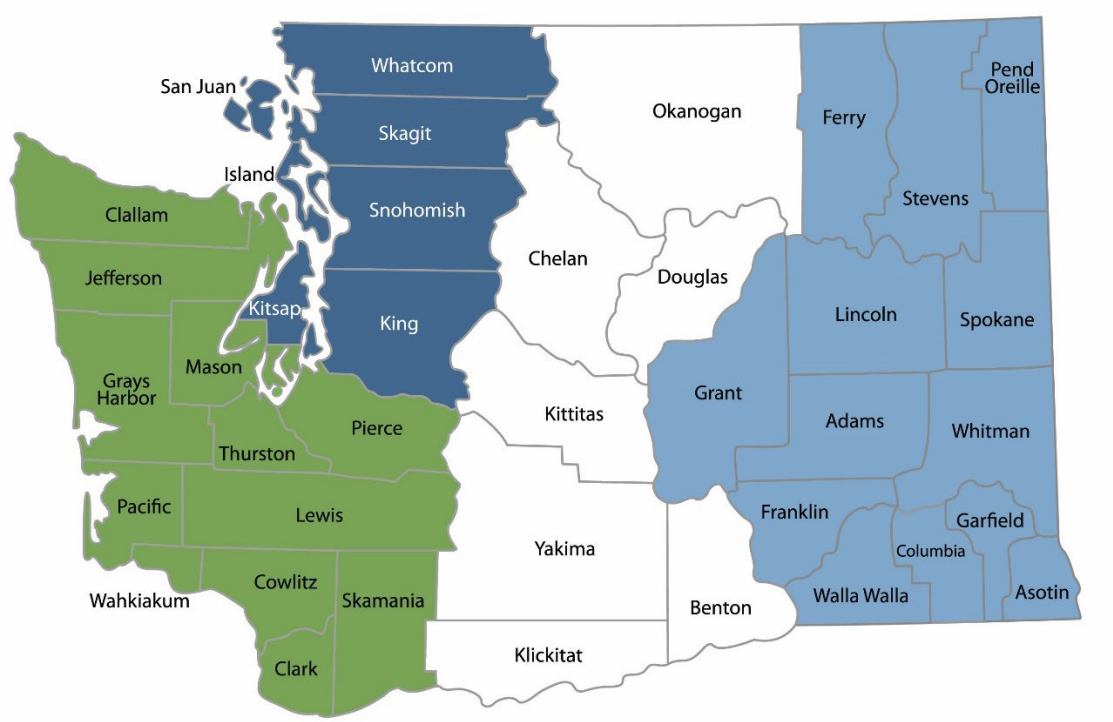
Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400

Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	P.O. Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	P.O. Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 West Alder Street Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 North Monroe Spokane, WA 99205	509-329-3400
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Background & Purpose

Section 104 of Washington's Organics Management Law directs the Washington State Department of Ecology (Ecology) to contract with a third-party consultant to conduct a study of the adequacy of local government solid waste management funding. The law requires the study to include options and recommendations to provide funding for solid waste programs in the future if significant statewide policy changes are enacted. This study fulfills the law's requirements and serves to inform the legislature, Ecology, and interested parties across the state of Washington on the relative impact of existing and proposed policies on local solid waste system costs and revenues.

The Project Team was led by **Resource Recycling Systems (RRS)** and included **Cascadia Consulting Group** and **FCS Group**. The study began in October 2022 and ended in June 2023 and resulted in five independent yet complementary reports:

- **Chapter 1** provides a **Report Summary** of all four components of the study and the range of research and findings that resulted from the research. Chapter 1 also contains the set of **Recommendations** that are based on the findings and the contract team's collective expertise in materials management, policy, and analysis.

- **Chapter 2** reviews the **Current Funding Types** that state and local governments are currently authorized to use for solid waste management activities, summarizes current solid-waste-related expenditures by state agencies, and outlines the results of a web-based survey of local governments to learn about solid waste funding types and their rate of adoption.

- **Chapter 3** is an analysis of **Core Services Funding Needs** and is based on a service model developed to improve the solid waste management system in Washington with the aim of ensuring that a set of core services are both operating and available to all residents of each county in Washington.

- **Chapter 4** discusses **Alternative Funding Models** that are in use or have been proposed in other parts of the United States and across the world that may have relevance in Washington.

- **Chapter 5** evaluates the **Material Flow, Service Level, and Cost to City and County Solid Waste Systems** of twenty-three (23) policies that have been considered or enacted by the Legislature between 2019 and 2022.

A summary of each chapter is provided in the following pages. Recommendations can be found on page 15 and a comprehensive list of terms and acronyms can be found on page 19. References to sources used throughout the report can be found in the References section of each chapter.

Chapter 2 – Current Funding Types

Chapter 2 focuses on the funding sources and types that are both available and in use to support the provision of solid waste services at the local level. Counties and cities most commonly use collection, tipping, or user fees; state grants; and money from utility or enterprise funds[2] to fund all solid waste-related programs and services. A qualitative and quantitative analysis provides insights into the sources of funding, including that which comes from the state; usage of funding available; and scope of services provided with the funding. A qualitative survey tool informs the adequacy of funding.

Key research areas included:

1. Currently authorized solid waste funding sources and mechanisms
2. Uses of funding, including a distinction between staff and infrastructure costs
3. Comparison of funding that is sourced from tipping fees, grants and emergency management funds and the availability of services and programs

Washington Solid Waste System Overview

Local governments have primary responsibility for regulating and overseeing management of solid waste in Washington. Counties, jurisdictional health departments, and cities share this responsibility. Solid waste management costs may be paid by ratepayers directly to service providers, by counties in areas where they contract for service provision, or by cities within the county that contract for service. In cities which provide or contract for service, residents pay the city for service through fees or pay service providers directly. Local governments provide programs and some infrastructure including transfer stations, recycling drop-boxes, and—in some instances—composting operations, landfills, and even collection vehicles and bins.

At the state level, Ecology's Solid Waste Management program supports and provides oversight of waste reduction, recycling, organics conversion, and disposal programs. Activities include technical assistance on solid waste handling facility performance and landfill monitoring; local waste plan guidance; and grant funding for cleanup, waste reduction, recycling projects, planning, and enforcement.

As part of this analysis and as a subconsultant to RRS, Cascadia Consulting Group (Cascadia) researched funding sources that state and local governments are currently authorized to use for solid waste management activities, summarized current solid-waste-related expenditures by state agencies, and conducted a web-based survey of local governments to learn about solid waste funding types and their rates of adoption.

[2] Utility and enterprise funds are technically an accounting method and not a funding source. Utility and enterprise funds are a self-supporting government account that is mainly funded by fees charged to external users (such as collection or tipping fees) that pay for goods or services provided to those users (such as solid waste management services).

Authorized Solid Waste Funding Sources and Mechanisms

There are 29 funding sources and mechanisms currently authorized for use in Washington State related to solid waste. Eleven are implemented at the state level, 17 at the local level, and one — littering and illegal dumping enforcement penalties — which can be implemented at both the state and local level. Washington has added two new funding sources since the previous assessment of funding sources in 2017: Extended Producer Responsibility (EPR) programs PaintCare and Safe Medicine Return. Funding sources and mechanisms fall into the following categories and are explained in more detail in the Chapter 2 report and appendix C:

- User fees (including collection or tip fees)
- EPR programs
- Other waste-related fees, such as permits, administration fees in collection or separate from collection contracts, performance fees in collection contracts, Utilities and Transportation Commission (UTC) fees on gross revenues, and King County's local hazardous waste fee
- Waste-related taxes
- Excise, sales, or manufacturing taxes/fees
- Commodity sales
- Enforcement fines/penalties
- Grants and loans
- Non-waste funds such as general funds

These funding sources and mechanisms can be used to fund the following for all waste streams including garbage, recycling, organics, and moderate-risk waste (MRW):

- Collection, transfer, transport, disposal, and processing
- Capital improvements and equipment (or debt service for financed purchases)
- Operations, maintenance, or monitoring of active facilities (active landfills, other disposal sites, recycling, composting, and moderate risk waste facilities)
- Monitoring, maintenance, and remediation of inactive facilities (e.g., closed landfills)
- Education and outreach, waste prevention and reduction programs, and contamination reduction
- Litter/illegal dumping cleanup and prevention
- Solid waste planning & general administration
- Matches for state or federal grants
- Permitting and enforcement

Some of these 29 funding sources and mechanisms are intertwined, such as when the state's Hazardous Substance Tax serves as a funding source for several of Ecology's grant programs to local governments. Furthermore, counties that receive Ecology grants may pass them through to their cities.

State Revenues and Expenditures Related to Solid Waste

Ecology's estimated budget for work that directly supports local government solid waste activities is $42.3 million for the 2021–2023 biennium, of which more than two-thirds (nearly $28.8 million) will be passed through as grants or awards primarily to local governments as well as to community organizations and schools. Ecology is budgeted to have 29.4 full-time-equivalent (FTE) staff to provide facility permitting and monitoring assistance, planning assistance, direct services including cleanup of litter and tire piles, data analysis, and grant management in support of local governments, at an estimated cost of $8.7 million. Ecology used the remaining $4.8 million for contracts on education campaigns, cleanups, and studies that support local government solid waste activities.

Ecology's funding comes from a variety of accounts and revenue sources:

- **Litter Tax:** Most of the $15.4 million collected by the Litter Tax in fiscal year 2021 went to the Waste Reduction, Recycling, and Litter Control Account. This account funds activities and grants to prevent and clean up litter, as well as funding a significant portion of Ecology's work related to recycling, managing organics, and waste reduction. A portion of the Litter Tax ($1.25 million) was diverted by the legislature to the Park Renewal and Stewardship Account.
- **Hazardous Substance Tax:** The Hazardous Substance Tax generated nearly $249.3 million, all of which remained in Model Toxics Control Accounts (MTCA) in fiscal year 2021. MTCA is used for a wide array of purposes, including a small portion used to fund Ecology's solid waste activities and Local Solid Waste Financial Assistance grants.
- **Replacement Vehicle Tire Fee:** All of the nearly $4.3 million collected from the Replacement Vehicle Tire Fee in fiscal year 2021 went to the Waste Tire Removal Account. Approximately $1 million per biennium goes to Ecology for tire pile cleanup, with the rest going to the Department of Transportation for road maintenance.

Washington's Department of Revenue collects the Solid Waste Collection Tax on garbage collection, but revenues do not fund solid waste activities at this time. This tax generated more than $56.7 million in fiscal year 2021, according to the most recent data available from the Department of Revenue. In fiscal year 2021, all revenues were diverted by the legislature to the Education Legacy Trust Account. Since 2011, revenues have been diverted to either the General Fund or the Education Legacy Trust Account. Those funds will be redirected to the Public Works Assistance Account starting in fiscal year 2023. Prior to fiscal year 2011, Solid Waste Collection Tax revenues went to the Public Works Assistance Account, but an analysis of loans from this account for 2005 found that only 10% funded solid waste projects.

Funding Sources Needs Met, and Gaps, for Current Programs and Services

In a survey of solid waste staff from local governments, respondents representing 28 of Washington's 281 cities and towns and 31 of Washington's 39 counties from Ecology's four regions participated. Respondents provided information about the availability of garbage, recycling, organics, bulky waste, HHW, and MRW collection services, as well as any publicly owned solid waste facilities in their

jurisdictions. MRW includes HHW and SGQ wastes from businesses. Respondents also identified the funding sources their jurisdiction uses to pay for solid waste services. Responses were reported as provided and not independently verified. As a result, they may reflect the opinions of, or best available information available to, the staff who were able to participate in the survey.

Respondents identified the funding sources their jurisdiction uses to pay for solid waste services, most commonly reporting using collection, tipping, or user fees; state grants; and money from utility or enterprise funds to fund all solid waste-related programs and services. Supplemental analysis of funding sources, based on solid waste planning documents and county and/or city budgets, for 12 counties and 12 cities selected to be representative of the state confirmed the reliance on collection, tipping, or other user fees that support enterprise funds. Grants were also commonly used for the provision of services, with tipping fees serving as match funding, when required. Several cities also rely on a utility tax, an option not available to counties.

Respondents also provided qualitative information about whether needs related to core services[3] identified by the Washington Association of County Solid Waste Managers (WACSWM) were met in their respective jurisdictions and assessed gaps with current funding sources for solid waste-related activities. WACSWM identified core services related to waste collection, waste disposal, recycling, household hazardous waste, emergency response, administration, enforcement, education and outreach, and risk management and safety.

Responses varied in terms of the perception of solid waste core service needs that are met with current funding sources across geography and population density. In general, respondents reported that a higher percentage of service needs were met for recycling, HHW and MRW collection, permitting and enforcement, and local waste planning and administration relative to the lower percentage of needs met for other activities such as composting, contamination reduction, education and outreach, litter and illegal dump cleanup, and construction and demolition (C&D) debris recovery.

Overall, respondents reported interest in enacting more EPR programs which shift financial responsibility away from local government and onto brand owners, and would help increase recycling programs and access, especially in rural areas. Respondents were also interested in obtaining more funding to implement organics collection services, and for staff capacity and services for education and outreach related to recycling, organics, and HHW.

[3] The solid waste core services model was developed by the Washington Association of County Solid Waste Managers to "improve the solid waste management system in Washington by assuring a set of core programs and services are operating in every county and available to most residents, regardless of where they live, at a reasonable cost."

Chapter 3 – Core Services Model

The solid waste core services model was developed by the Washington Association of County Solid Waste Managers to "improve the solid waste management system in Washington by assuring a set of core programs and services are operating in every county and available to most residents, regardless of where they live, at a reasonable cost."

The core services model includes the following elements:

- Recycling
- Waste collection
- Waste disposal
- Household hazardous waste
- Emergency response
- Enforcement
- Administration
- Education/outreach
- Risk management & safety

The model provides a policy framework designed to address current challenges in the state's waste management infrastructure including access to curbside and self-haul services, consistency in programs, and economic disparities between communities. To address these challenges, the framework recommends minimum standards for disposal and recycling programs and services in every county.

As part of a broader analysis and as a subconsultant to RRS FCS GROUP evaluated the funding needed to implement the solid waste core services model. This study compared existing service levels and the core services model recommendations in twelve counties across Washington, representing 34% (about 2.6M people) of the state's population. The counties (Chelan, Clallam, Cowlitz, Island, Kitsap, Kittitas, Lincoln, Pierce, Skagit, Spokane, Walla Walla, and Yakima) include rural and urban counties in all four of the Ecology regions (i.e., Northwest, Southwest, Central, and Eastern). This comparative analysis identified existing program gaps and estimated funding needs to implement the core service model in the twelve counties. Funding needs are estimated over a ten-year period as well as unit costs per ton and per capita.

Key Findings

Existing Service Levels

- MSW (municipal solid waste, i.e., garbage) collection is accessible to every resident in the twelve counties assessed.

- Approximately 916,000 and 853,000 residential households[4] across the 12 counties have access to recycling and yard debris curbside collection, respectively; however, access varies widely by county.
- Self-haul facilities within the 12 modeled counties generally accept the materials included in the core services model.
- Counties with less access to curbside collection services for recycling and yard debris tend to have more self-haul facilities on a per capita basis.
- Each of the 12 counties modeled operate at least one HHW permanent facility.

Core Service Model Gap Analysis

- If curbside collection of recyclables and yard debris were to be made available to every household in cities and towns within the 12 modeled counties, it is estimated that these services would need to be expanded to approximately 38,000 households for recyclables and 59,000 households for yard debris.[5]
- About half of the 12 counties may need additional self-haul facilities to meet the core service minimum standards for access to MSW, recyclables, or yard debris services, based on existing conditions.
- County solid waste managers also identified capital improvements needed to maintain existing self-haul facilities as well as additional facilities to meet future demand for MSW, recycling, yard debris, and other solid waste services.

Funding Needs Analysis

- The ten-year (2023-2032) funding requirements to implement the core services model is estimated at $412 million to $470 million for the 12 modeled counties. This estimate includes expanding access to more households, maintaining services at existing facilities, making improvements to facilities, as well as adding new facilities in response to anticipated population growth within the modeled counties. The funding estimate is equivalent to raising the MSW tipping fee in the assessed counties by $19 to $22 per MSW ton.
- Extrapolated ten-year cost estimate for core service improvements statewide ranges from $2.07 billion to $2.24 billion. County-identified capital projects comprise the majority of the statewide funding need ($1.62 billion). The annual statewide funding need ranges from $25 to $27 per capita over the ten-year period.
- Funding needs tend to be proportionally higher in rural counties and in the central region of the state relative to other regions, due primarily to lower access to curbside recycling and yard debris collection services.
- Currently, state-supported grant and loan funding to local governments comprise less than 2% of operating revenue for modeled counties. Though small, this is an important funding

[4] Residential includes single and multifamily households.
[5] Figures 2 and 3 in Chapter 3 provide a detailed explanation of the analysis of these service gaps.

source. Analysis of individual budgets show this ranges from 0 to 63%. An average of 90% of the revenue for the representative counties is generated from charges for goods and services – generally the tipping fees assessed at area transfer stations and landfills. Barring a major shift in funding models, these core service improvements would need to, and are likely to, be funded by increases to tipping fees and user rates. More discussion about the role of grants can be found in Chapter 2, Current Funding Types.

- Chapter 4 of this report addresses the alternative funding mechanisms for consideration to address funding gaps for solid waste management services in the state.

Chapter 4 – Alternative Funding Mechanisms

Chapter 4 includes a discussion and application of alternative funding sources that have been utilized by publicly managed solid waste programs in other states or countries that may be relevant to Washington. While the study explores alternative models, this section does not model specific budget impacts for Washington State.

A similar report, *Funding Mechanisms for Solid Waste*, was commissioned in 2017 by Ecology and completed by Cascadia Consulting Group. The report explored funding authority at various levels of government and detailed several recommendations for both statewide and local funding mechanisms. These methods may be serviced by the state (e.g., a state tax), or other entities that offer statewide services (e.g., EPR). The recommendations in the 2017 are still relevant and offer important policy measures to consider or reconsider.

Building on the 2017 report, the analysis in Chapter 4 explores alternative funding mechanisms in greater detail. Many of these are based on fundamental concepts of taxing and EPR applied to packaging and plastics. Others are more targeted efforts that are system approaches, like hub-and-spoke initiatives and state-wide technical assistance programs.

The mechanisms and states/countries in this report have been selected based on the detail provided in the Request for Proposals, discussion during meetings with Ecology staff, and the project team's experience in assessing the implications of policy and regulatory strategies to support workable and effective programs to meet key goals and targets in Washington State.

Extended Producer Responsibility (EPR)

EPR programs require producers (typically brand owners) to take responsibility for their products and/or packaging at the end of their useful life. The responsibility can be financial, operational, or a combination of the two depending on the legislation. Washington already utilizes EPR policy to manage electronics, mercury-containing lights, pharmaceuticals, and paint. EPR for solar panels manufactured after 2017 is slated for implementation in 2025. When structured to provide revenue via reimbursement for providing recycling or waste handling services, or to reduce costs by removing the responsibility for handling a material or product, EPR can provide significant financial benefits to local governments. EPR can also be an effective policy tool for addressing other large or difficult to handle items, such as mattresses, carpets, textiles, and electric vehicle batteries.

The 2017 report did not analyze EPR for packaging and paper products (PPP) but since that time, this policy approach is increasing in attention and adoption. Chapter 4 looked at various models of this policy. Chapter 5 found that implementing the EPR for PPP bill introduced in the 2022 session would have had significant financial benefits to Washington's solid waste system.

Deposit Return Systems (DRS)

While not explored in the 2017 report *Funding Mechanisms for Solid Waste*, DRS, also known as bottle bills, continue to garner political attention in Washington and elsewhere. DRS are a proven, sustainable method of capturing beverage containers for recycling. The refund value of covered containers (typically five or ten cents in the U.S.) is applied at the point of sale to act as a monetary incentive for the consumer to return the container for recycling.

DRS programs do not directly fund local governments. Instead, they shift the costs associated with managing beverage containers, whether they are in the waste stream, the recycling stream, or discarded as litter. Although DRS do not make direct payments to local governments, unredeemed deposits may support beverage container recycling in the state. Depending on the program, unclaimed deposit funds are retained by beverage distributors, state agencies, or a combination of the two.

Plastic Taxes and Fees

The 2017 report explored several existing tax revenue streams, including the Solid Waste Collection Tax, Hazardous Substance Tax, and Litter Tax, all of which are described in more detail in Chapter 2. Since that time taxes on plastics have been proposed in a few states and enacted in some European countries. Recent activity on taxes and fees has been driven by the increased political attention on plastics in the environment. Taxes and fees on plastics or all packaging materials can be large revenue generators either at the state or local level.

Fees and taxes on plastics, packaging and other waste materials can be allocated to general revenue or to specific activities to mitigate damage from the products or materials that are taxed. To support local governments with solid waste management, a tax or fee could be allocated to a dedicated fund with guidance on how money is to be used. The guidance could take into consideration both rural and urban needs.

Regionalized Systems

In Washington there are several programs that may lend themselves well to a more regionalized approach to waste management, particularly in remote areas of the State and for difficult to manage materials. While not a funding mechanism, regional systems or 'hub-and-spoke' models for recycling have been used to expand recycling access in rural areas of the U.S. The hub-and-spoke model consists of centralized processing centers (hubs) and surrounding communities (spokes) that feed the recyclables they collect to the main hubs. Benefits of this system include reductions on the costs and amount of equipment, personnel, processing, transportation, and marketing. Hub-and-spoke models support greater economic efficiency by consolidating larger volumes of materials at a facility before sending them to markets. The systems are often dependent on external funding, such as grants, to develop the infrastructure needed and support ongoing collection efforts.

Statewide Technical Assistance Programs

Many states, including Washington, have established technical assistance programs to support local waste management programs and supplement the need for local funding. While not a funding mechanism, statewide technical assistance can reduce financial burdens on local governments by providing some services at the state level. Depending on the level of investment by the state, these programs may include grant offerings, free educational resources, campaign materials, templates and toolkits, or consultation services and expertise. This report studied three other states' technical assistance programs for addition ideas.

Chapter 5 – Fiscal Impacts from Policy

RRS evaluated the impact of 23 policies that were proposed or enacted between 2019 and 2022 to estimate their impact on the material flow, service level, and cost to city and county solid waste systems across Washington. The analyses looked 5 years out, to evaluate policy at full implementation, and consider material flows and service level impacts to waste, recycling and organics collection and processing, as appropriate. Annualized system fiscal impacts for twenty-four representative cities and counties highlight impacts across jurisdictions of various populations, population densities, and locations across Washington. Additionally, fiscal impacts to city and county systems statewide, by region, and by jurisdiction designation (suburban, urban, and rural) are presented to assist in the identification of trends and policies with the greatest impact.

The analysis focuses on systemwide cost and savings. Utilizing this method provides the most robust accounting of the fiscal impact of the policies evaluated by ensuring all costs and savings are documented. This approach recognizes that the division of solid waste management and recycling system costs and revenues among stakeholders (e.g., ratepayers, city government, county government, and private sector) varies by jurisdiction within Washington. However, it does not specify which costs or savings will be enjoyed by local governments, and which will be seen by ratepayers or the private sector. Further, it does not reflect the budgetary conditions of cities and counties. This approach may not reflect the budgetary conditions of cities and counties. For example, policies that move materials from the waste stream into the recycling and composting stream may provide overall system cost savings. However, counties whose primary engagement in solid waste management and recycling systems is operating a landfill or transfer station, or depend on portions of tip fees to fund programs, will not enjoy those savings, and will instead experience a revenue loss. Despite this, it can be generally assumed that where policies increase costs, at least some of that cost will be borne by local governments, and where cost savings are enjoyed, local governments will benefit at some level.

This evaluation will assist the Legislature, Ecology and other key interested partners and parties in identifying the level of fiscal impact to provide required service levels and implement the new policies.

Key Findings – Systemwide Costs[6]

- Recently enacted laws could result in approximately $60 million per year in annualized net system costs statewide, equivalent to $19 per household per year. Equivalent fiscal impacts per household among representative cities and counties range from a savings of $2 to a cost of $102.
- Approximately 3% of the statewide net annualized fiscal impact (costs) of enacted policies, as modeled, can be attributed to revenue loss from decreased disposal of municipal solid waste and loss of associated tipping fees.

[6] Financial analysis associated with each proposed policy can be found in the Proposed Policy Profiles in the appendix of Chapter 5. A discussion of the aggregate impact of proposed policies can be found in the Results and Discussion section of Chapter 5.

- House Bill 1799 (enacted 2022), Concerning organic materials management, has the most significant impact of the enacted laws, with estimated net system costs of $50 to $55 million per year statewide. Of this, between $33 and $37 million is associated with commercial organics management requirements.
    - Senate Bill 5126 (enacted 2021), Concerning the Washington climate commitment act, and House Bill 1663 (enacted 2022), Reducing methane from landfills, bring significant cost impacts to some solid waste system costs due to their requirement to improve disposal infrastructure to account for and, in some cases, mitigate greenhouse gas impacts. The City of Spokane owns the only MSW waste-to-energy facility in the state. The annualized cost for the waste-to-energy facility to comply with the Washington Climate Commitment Act is between $2.3 million and $8.5 million. As the owner of the facility, the City of Spokane is solely responsible for meeting compliance obligations; however, it is anticipated this cost will be shared with jurisdictions in the county that also utilize the facility.
    - Statewide cost impacts associated with HB 1663, Reducing methane emissions from landfills, range from $3.7 million to $5.2 million and are more evenly distributed across the state.
- Many of the policies, particularly House Bill 1799 (enacted 2022), will require investment in new infrastructure for implementation, including carts, collection vehicles, and upgrades to or the development of new organics processing facilities. The analysis presented here does not explicitly model the cost of infrastructure; instead, it assumes that fees charged to customers for collection and processing cover the development of this new infrastructure by incorporating debt service costs. In the short-term, capital financing strategies such as bonds, loans, grants, and/or private sector investment will be needed to meet initial infrastructure cost needs. Without significant financial support, it is likely that local governments and ratepayers will bear some of the burden of capital financing.

Key Findings – Systemwide Savings[7]

- House Bill 1543 (enacted 2019), Concerning sustainable recycling, requires local governments to create and implement contamination reduction outreach plans. It is estimated to result in systemwide savings between $560,000 and $2.48 million by reducing recycling processing costs due to less contamination.
- House Bill 1652 (enacted 2019), Paint stewardship, requires producers of architectural paint to fund a statewide paint collection and recycling program. It is estimated to result in savings of $546,000 per year.

[7] Financial analysis associated with each proposed policy can be found in the Proposed Policy Profiles in the appendix of Chapter 5. A discussion of the aggregate impact of proposed policies can be found in the Results and Discussion section of Chapter 5.

- The largest fiscal benefit to local government solid waste systems would have come from House Bill 2003/Senate Bill 5697 (2022), Relating to renewing Washington's recycling system and reducing waste. This legislation would have created an Extended Producer Responsibility (EPR) Program for packaging and paper products. The intention of this policy was to shift the financial responsibility for recycling packaging and paper products at the end of their useful life from local governments to the producers of this material. Cost savings from implementation of this policy is estimated between $176 and $268 million. The savings from this one policy is greater than the costs of all enacted policies with statewide projected cost impacts. A similar bill, the WRAP Act (House Bill 1131/Senate Bill 5144), was being considered during the 2023 legislative session but did not advance. Fiscal impact of the most recent EPR legislation was not included in this study.

Recommendations

The research and findings from this study inform a set of recommendations, presented in no specific order, that will assist the Legislature, Ecology, and invested cities and counties to assure adequate funding for local government solid waste programs to help meet goals represented in the core services model and to prepare for recent and anticipated solid waste-related policy changes.

Maintain or Increase Existing State Grants for Cities and Counties

Despite the finding from the Core Services Funding Needs Analysis[8] that state-supported grant and loan funding to local governments comprise less than 2% of operating revenue for modeled counties, feedback from the surveys and findings from the local government budget analysis underscored the importance of grants to local governments to aide them in providing critical programming that would otherwise be unfunded or underfunded. Litter prevention, illegal dumping cleanup, contamination reduction, waste prevention, and education and outreach are all important components of solid waste management for which local governments bear responsibility which are supported in large part by grants.

Ecology's 2021-2023 budget shows that more than two-thirds of the solid waste program funding ($28.8 million) is redistributed to local governments, community organizations, and schools through the Local Solid Waste Financial Assistance program, Waste Reduction and Recycling Education, Community Litter Cleanup Program, and other state grants. Ecology reported that some local governments that are eligible for grants are not fully expending all grant dollars. It is recommended that Ecology work to better understand the barriers that are preventing local governments from taking full advantage of available grant funds.

Adopt EPR for Packaging and Paper Products

When appropriately and adequately structured, EPR can provide significant financial benefits to local governments and ratepayers by shifting the cost of recycling from those entities to the producers of packaging and paper products. In addition to holding producers responsible for recycling products and/or packaging, EPR programs bring a level of data reporting, tracking, and transparency that can improve the understanding and performance of the system as a whole. County and municipal solid waste professionals surveyed as part of this study[9] found interest in having more funding support from EPR to shift financial responsibility for managing this material away from local governments and increase provision of service. This could also free up funding to maintain and replace aging infrastructure, expand other recycling and waste reduction services, and meet increasing demands

[8] Chapter 3, Core Services Funding Needs Analysis, of the full report Local Government Funding for Solid Waste in Washington State

[9] Chapter 2, Current Funding Types, of the full report Local Government Funding for Solid Waste in Washington State (2023)

around landfill methane and organics. Further, it could enable more staff capacity and services for education and outreach related to recycling, organics, and household hazardous waste.

House Bill 2003 and companion Senate Bill 5697, Relating to renewing Washington's recycling system and reducing waste, would have resulted in system cost savings between $176 and $268 million per year. EPR for PPP could help meet the infrastructure needs in the WACSWM core services model and cost savings could help fund an expansion of other core services. The systemwide cost savings from this one policy is greater than the systemwide cost of all enacted policies with statewide projected cost impacts evaluated in this report.[10]

It is important to note for further EPR discussion in Washington that Material Recovery Facilities (MRFs) rely on commodity values to partially support their operations and municipal recycling contracts have historically included some amount of revenue sharing. The development of any EPR policy should carefully consider the system impacts the policy would have on local governments that benefit from revenue sharing as well as MRFs that rely on commodity sales to fund operations.

Explore Further Applications of EPR for Other Difficult-to-Recycle Products

Washington already utilizes EPR policies to manage electronics, mercury-containing lights, pharmaceuticals, and paint. EPR for solar panels manufactured after 2017 is slated for implementation in 2025. EPR can also be an effective policy tool for addressing other large or difficult to handle items, such as mattresses, carpets, textiles, and electric vehicle batteries. EPR for additional products would also support the survey responses for expanding use of EPR to free up local resources for staff capacity and services for education and outreach related to recycling, organics, and household hazardous waste.

Explore Other Options to Decrease Funding Gaps

Direct Solid Waste Collection Tax to Solid Waste Uses

While the need for funding is vast across the state, the Solid Waste Collection Tax is an important source of funding that comes directly from fees for the collection, transfer, storage, or disposal of solid waste. This funding should be reinvested in solid waste infrastructure, programs, and capacity building to meet the current and future needs of Washington. The tax could be increased or expanded with an earmark of a specific amount that can be designated for solid waste purposes. In this way, it can remain a reliable source of funding for solid waste purposes without jeopardizing the other uses that are important in Washington. The tax increases the current rate on waste disposal and earmarks that amount for solid waste purposes. Similarly, a tax could be assessed on recycling or composting facilities with the revenue generated dedicated to solid waste purposes, though increasing the cost of recycling and composting may be counterproductive to the state's goal to improve recovery and reduce waste.

[10] See the policy analysis for HB 2003 / SB 5697 in Chapter 5 for annualized system fiscal impact for representative city and county systems for more detail on the financial benefits.

The State Solid Waste Collection Tax generated more than $56.7 million in fiscal year 2021, but none of the funds went to solid waste. Instead, since 2011, all revenues have been diverted by the legislature either to the general fund or the Education Legacy Trust Account. Reportedly, in 2023 the funds are directed to be restored to the Public Works Assistance Account, which makes loans to local governments for infrastructure. However, analysis of loans made in 2005 from that account shows that only 10% of Solid Waste Collection Tax revenues were applied to fund solid waste infrastructure.

Sustainable Contracting, Rate Structures, and Tip Fees

Washington county and municipal survey respondents commonly reported using collection, tipping, or user fees to fund solid waste-related infrastructure, programs, and services for the vast majority of funding needs. As recycling, organic waste collection, and other waste reduction and diversion efforts grow in efficacy, the amount of solid waste being disposed will reduce and the resulting revenues that fund diversion programs will also dwindle. This has been a concern for local government solid waste managers for many years.

As such, it will be important for communities that rely on solid waste tipping fees to diversify their revenue portfolio to ensure resilience to these reductions while maintaining a high level of service.

Examples of fees and contract mechanisms that ensure services are benefitting both the rate payer and the municipality or county include:

- Fees for services with a specified amount earmarked for specific programs or services within the served community.[11]
- Service contracts written to include commitment to a specified level of service that includes recycling and organic waste collection in conjunction with trash services to ensure access is being provided.[12]
- Fees for services structured to direct a percentage of approved rates from the provision of services (recycling, trash, organic waste) or the sale of commodities back to local government.[13]
- Tipping fees at privately or publicly owned landfills that include a specified fee per ton or flat host agreement fee that is returned to local government to support integrated programs. Exemptions can be made for facilities whose tip fees are already dedicated, in part, to waste prevention, reuse, recycling and composting programs.

[11] For example, the earmark could be applied to outreach and education specific to recycling or for the provision of specialty recycling services, like bulky plastics, mattress collection, or another need identified in the community.
[12] For example, a service contract could require recycling and/or organics collection at the same service level as trash collection. or that the fee for service is included as a bundle for one rate. The contract could include, but does not require, an opt-out clause.
[13] Similar to the earmark example, but with a specific percentage designated back to the local government.

Taxes on Plastic and Packaging Materials

Taxes and fees on plastics or all packaging materials can be large revenue generators either at the state or local level but are unproven at this point in time. Washington House Bill 5219, Concerning the management of plastic packaging materials, was introduced in 2021 but did not pass. It would have generated revenues estimated between $20 and $30 million in its first year, equivalent to $2.60–$3.90 per capita. While these taxes generate revenue, plastic and packaging taxes and fees have not yet proven to provide other benefits to recycling or sustainable materials management programs. More research is needed before these policies can be recommended. EPR programs are preferable policy because in addition to providing revenue or relieving cost burdens, EPR programs are proven to increase recycling rates and improve infrastructure.

When developing taxes and/or fees, it is important to have clear intentions and transparency on the use of those funds to ensure that the outcomes are achieved. A tax or fee that directs funds to resolving a particular issue is more likely to be supported by interested partners and parties. If the tax or fee is intended to support investments in recycling system infrastructure, a time-bound charge could be considered for short-term use in a jurisdiction.

Conclusion

Recycling, organics recovery or waste management policy can have a significant impact on local governments and ratepayers. Those impacts can be reduced or mitigated through well framed policies, additional funding, or innovative contracting strategies. Some strategies recommended here have proven track records and others are in their infancy and should continue to be monitored until their success can be proven. The legislature should consider potential impacts and mitigation strategies as it weighs options for improving recycling and organics recovery and reducing waste.

Glossary

Term/Acronym	Definition
Access	Generally defined by how a household or business engages a county's solid waste system to manage waste (i.e., MSW, recyclables, yard debris, HHW). Access to waste services typically occurs at or near the property ("curbside") or at a solid waste facility where a household transports or "self-hauls" their waste. Self-haul facilities may include transfer stations, drop-off centers, and drop boxes. Curbside collection service provides the highest level of access to waste services because it is the most convenient for a household. Self-haul facilities do provide access to waste services, but they are less accessible compared to curbside collection.
AWC	Association of Washington Cities
Capture rate	See 'recovery rate'
Cascadia	Cascadia Consulting Group
CLCP	Community Litter Cleanup Program (grants)
Commercial	Any property intended for business operations such as office buildings, shops, retail malls, and hotels.
Commercial Container	A detachable receptacle (normally designed to hold at least one cubic yard) from which materials are collected by mechanically lifting the receptable and emptying the contents into a collection vehicle.
Construction and Demolition (C&D)	Materials resulting from the alteration, construction, rehabilitation, or repair of any human-made structure, including but not limited to houses, buildings, industrial or commercial facilities, and roadways.
Cost Scale – Low, Medium, High	Low, medium, and high costs are set at the 1st quartile, median, and 3rd quartile of the applicable cost data.
Curbside Collection	A service provided to households and businesses for the disposal of refuse, recycling, and yard debris. Residents in some areas may be mandated to provide or receive this service. In other areas, residents may have a choice to sign up if available (e.g., subscription).
Curbside Collection Recyclables	Refers to curbside collection of source-separated recyclables for recycling.
Curbside Collection Yard Debris	Refers to source-separated curbside collection of yard debris for composting or other forms of organics processing.

Deposit Return System (DRS)	A surcharge is placed on a product when purchased and a rebate is provided when the product is returned to a designated site for recycling; also known as Bottle Bills.
Drop Box	An unstaffed receptacle at a permanent location into which refuse, recycling, or yard debris can be deposited.
Drop-off Station	A site where self-haul waste is sorted and collected in preparation for transport to a transfer station, processing, or landfill. Drop-off stations serve as small-scale transfer stations designed to provide access to self-haul customers. Drop-off stations do not generally accept waste from a private waste hauling company.
Ecology (ECY)	Washington State Department of Ecology
Enterprise Fund	A self-supporting government account that is mainly funded by fees charged to external users (such as collection or tipping fees) that pay for goods or services provided to those users (such as solid waste management services).
Environmental Justice (EJ)	The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.
Extended Producer Responsibility (EPR)	EPR programs require manufacturers and importers of covered products to fund the cost of collection and recycling and to manage the handling of recovered materials. They shift the financial costs of managing products at the end of their useful life from individual disposers and the public sector to product manufacturers.
FCS	FCS GROUP
Food Waste	Includes but is not limited to excess, spoiled, or unusable food and includes inedible parts commonly associated with food preparation such as pits, shells, bones, and peels. "Food waste" does not include dead animals not intended for human consumption or animal excrement.
Hazardous Substance Tax (HST)	The HST is a 0.7% tax on the wholesale value of taxable hazardous substances (petroleum products, pesticides, and certain chemicals) that is levied on the first possessor in Washington State.
Household	A household consists of all the people who occupy a housing unit. A house, an apartment or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters – that is, when the occupants do not live with any other persons in the structure and there is direct access from the outside or through a common hall.

Household Hazardous Waste (HHW)	Household hazardous waste. Includes any item that may harm the environment or human health, such as paints, stains, cleaning chemicals, pesticides, automobile products, etc.
Interlocal Agreement (ILA)	Refers to an agreement between two local governments, such as a city and a county.
Jurisdiction	Referring to a territory or activity of interest, including both counties and cities.
Large City	100,001 or more people
Large County	500,001 or more people
Litter Tax	The Litter Tax (chapter 82.19 RCW) is an excise tax of 0.015% on the value of products deemed likely to become litter. Examples of taxed products include fast food packaging, tobacco products, soft drinks, beer and wine, newspapers, and containers made from various materials; the taxable products list has not been adjusted since the law was first created in 1971.
LSWFA	Local Solid Waste Financial Assistance (grants)
Material Recovery Facility (MRF)	Material recovery facilities are facilities that process recyclable materials.
Medium City	50,001-100,000 people
Medium County	100,001-500,000 people
MRF-shed	Includes all communities that feed recyclables into a single MRF.
MRW	Moderate-risk waste includes household hazardous waste (HHW) and small quantity generator (SGQ) wastes from businesses.
Municipal Solid Waste (MSW)	Commonly known as trash or garbage. It includes non-hazardous disposable materials.
Municipality	A town or district that has a local government.
Non-residential	Any property not designed for people to live in.
Pay-As-You-Throw (PAYT)	Variable rate pricing policy whereby a customer is charged for the amount of trash they throw out rather than a flat rate.
Permanent HHW Facility	A fixed facility rather than a HHW collection event.
PPP	Packaging and paper product.
PPG	Public Participation Grants

Producer Responsibility Organization (PRO)	An organization that assumes the responsibilities of an obligated party as outlined in government regulations regarding the collection and recycling of products.
Recovery Rate	The amount of material that is not discarded in landfill or waste-to-energy, divided by the total amount generated.
Recyclables	Materials or products that can be used again after being treated or processed.
Representative Jurisdictions	In lieu of analyzing every city and county across the state, data from a predetermined set of 12 cities and 12 counties was modeled to determine provision of services and fiscal impacts from policies. Representative cities include the cities of Bellingham, Leavenworth, Marysville, Port Angeles, Richland, Seattle, Spokane, Tacoma, Vancouver, Wenatchee, Winthrop, and Walla Walla. Representative counties included in the modeling of policy proposal impacts include Chelan, Clallam, Cowlitz, Island, Kitsap, Kittitas, Lincoln, Pierce, Skagit, Spokane, Yakima, Lincoln, and Walla Walla.
RRS	Resource Recycling Systems
Rural	Rural: areas outside of cities/towns with low population density (<100 people per square mile). The rural designation is based on population criteria from RCW 82.14.370 used to identify counties for rural area assistance.
Self-haul	Waste that is hauled to a transfer or disposal facility by someone other than a private waste hauling company, or by someone whose primary business is not waste hauling.
Self-haul Facility	A drop-box, drop-off center, transfer station, or disposal facility that receives self-haul waste.
Self-haul Recyclables	Refers to source-separated collection of recyclables at a self-haul facility for recycling.
Self-haul Yard Debris	Refers to source-separated collection of yard debris at a self-haul facility for composting or other forms of organics processing.
Service Offered	Residents have the option to opt into the service for “free.” Cost of service is included in other items, such as recycling costs being included in garbage fees.
Service Required	Residents must participate in service. Failure to do so results in a fine.
Service Subscription	Residents may opt into the service for an additional cost.
Small City	A city with fewer than 50,000 people.
Small County	A county with fewer than 100,000 people.

Small Quantity Generators (SQGs)	Businesses that generate fewer than 220 pounds of moderate risk waste in any month. Ecology further defines SQGs as businesses in Washington that generate fewer than 220 pounds of dangerous waste, or fewer than 2.2 pounds of certain kinds of highly toxic waste, in any month. SQGs may accumulate up to 2,200 pounds (or up to 2.2 pounds of waste regulated at the 2.2 pound limit).
Solid Waste Collection Tax (SWCT)	The SWCT is a 3.6% excise tax on collection charges for solid waste disposal. It is charged on garbage only; materials collected for recycling, composting, or salvage, as well as hazardous or toxic wastes, are not subject to the tax.
Stewardship Organization (SO)	An organization comprised of interested partners responsible for oversight of a specified producer/product's impact on the environment and human health and safety. Used to describe a not-for-profit corporation or organization that is appointed by a producer to act as an agent on behalf of the producer to administer a product stewardship program.
Sustainable Rate Structures	Sustainable rate structures must balance the relatively fixed costs of providing service – such as providing a container, conducting education and outreach, and account administration – with the variable usage costs, such as tip fees for disposing or processing waste.
Suburban (City)	Any city in the state that has a population less than 50,000. This definition is unique to this study and is generally based on the US Census Bureau definition for an urban cluster. Urban clusters are defined as urbanized areas containing at least 2,500 and fewer than 50,000 people. Because some cities and towns in Washington have fewer than 2,500 people, the minimum population criteria for an urban cluster are not applied in this analysis.
Suburban (County)	County with 100 or more people per square mile.
Transfer Station	A site where refuse, recyclables, yard debris, and other waste types are collected and sorted in preparation for processing or landfill.
Urban	Any city in the state that is not rural and has a population of at least 50,000. For the fiscal impact analysis in Chapter 5, urban also refers to unincorporated areas of counties that are not rural and have a population of at least 50,000. This definition is unique to this study.
Utilities and Transportation Commission (UTC)	The Washington Utilities and Transportation Commission provides regulatory oversight of solid waste haulers that provide collection services in state-regulated service areas. The UTC does not regulate collection services within cities and towns that provide collection services or contract for such service.

Utility Fund	A self-supporting government account that is mainly funded by fees charged to external users (such as collection or tipping fees) that pay for goods or services provided to those users (such as solid waste management services).
Utility Tax	Taxes levied on the gross operating revenues earned by private and public utilities from operations within the City limits, including the City's own municipal utilities. Utilities on which taxes are levied include electric, water, sewer, solid waste, storm water, ambulance, gas, brokered natural gas, telephone and cable TV. These taxes represent a stable revenue source but can be impacted by a number of different factors, including the economy, technology, utility rate changes, weather and other fluctuations that impact a utility's ability to generate revenue.
WACSWM	Washington Association of County Solid Waste Managers
Wasted Food	Food that is disposed of that is still edible.
White Goods	Large home appliances such as refrigerators and washing machines.
WRRED	Waste Reduction, Recycling, and Education (grants)
Yard Debris	Decomposable waste materials generated by yard and lawn care and includes leaves, grass trimmings, brush, wood chips, and shrubs.