REPORT TO THE LEGISLATURE

Local Government Funding for Solid Waste in Washington

Background

Section 104 of House Bill 1799[1] of the 2022 legislative session required the Department of Ecology (Ecology) to contract with a third-party consultant to conduct a study on the adequacy of local government solid waste management funding and make recommendations.

The law further required Ecology to include the Washington Association of County Solid Waste Managers (WACSWM); the Association of Washington Cities (AWC); an association that represents the private sector solid waste industry, who in this case was the Washington Refuse and Recycling Association (WRRA); Zero Waste Washington and other stakeholders. Working with these groups, we scoped the study and reviewed the consultant's findings and recommendations prior to submittal to the Legislature.

In coordination with the stakeholders, Ecology published a request for proposal.

The Legislature directed the study to include[2]:

- A review and update of current funding types and levels available and their rate of adoption
- The funding needs to implement the solid waste core services model developed by the WACSWM
- Alternative funding models used by other publicly managed solid waste programs in other states or countries that may be relevant to Washington
- An evaluation of the impacts on solid waste funding resources available to cities and counties from statewide solid waste management policy proposals considered by the Legislature or enacted in the last four years
- A consideration of jurisdictional type, location, size, service level, and other relevant differences between cities and counties throughout the process

Ecology was to submit study findings and recommendations to the Legislature by December 31, 2023.

[1] Section 104 of House Bill 1799 was not codified.

[2] The complete law language is in the Appendix.

RRS performed the study in five tasks, or chapters, and includes three appendices. All documents are available on Ecology's website and linked below.

- Chapter 1: Executive Summary and Recommendations
- Chapter 2: Current Funding Types
- Chapter 3: Core Services Funding Needs Analysis
- Chapter 4: Alternative Funding Models
- Chapter 5: Fiscal Impacts from Policy
- Appendices: Local Government Funding for Solid Waste in Washington

Research Limitations

This study was large in scope and research of this nature had not been done before. The allotted timeframe and funding proved to be insufficient to achieve all of the desired outcomes. The biggest limitation was the inability to model local government funding in a distinct, detailed way. For much of this work, the consultant used 12 representative cities and counties each[3] to model system funding and policy impacts. The intent was to look at local government funding explicitly. However, each local government solid waste system is unique in its operations. Given the wide variety of systems, the consultant quickly realized they could not provide specific local government data via a model. Instead, they modeled solid waste system-wide impacts, which include local governments, rate payers, and service providers. The modeled system-wide impacts do not identify who in the system will realize which impacts, as that varies by jurisdiction. This limitation is of concern to some stakeholders, most notably WACSWM and AWC, as they wanted costs that are specific to local governments. Additionally the model does not take into account the totality of funding and investments made by the legislature to assist with implementation and to defray costs. Despite these limitations, Ecology gained valuable information from this study. The consultants' recommendations and key findings are shared below, by chapter.

[3] **The representative cities modeled are:** Bellingham, Leavenworth, Marysville, Port Angeles, Richland, Seattle, Spokane, Tacoma, Vancouver, Walla Walla, Wenatchee, and Winthrop. **The representative counties modeled are:** Chelan, Clallam, Cowlitz, Island, Kitsap, Kittitas, Lincoln, Pierce, Skagit, Spokane, and Yakima.

Chapter 1: Executive Summary and Recommendations

The consultant made four main recommendations based on the research and findings from this study. The recommendations can assist the State Legislature, Ecology, and local governments in assuring adequate funding for local solid waste programs, meet goals in the core services model, and prepare for solid waste-related policy changes.

Maintain or Increase Existing State Grants for Cities and Counties

Feedback from local government surveys and findings from the local government budget analysis completed as part of this study and described in Chapter 2, underscore the importance of grants. Grants aide local governments in providing critical programming that would otherwise be unfunded or underfunded. Litter prevention, contamination reduction, waste prevention, and education and outreach -- all are important components of solid waste management for which local governments bear responsibility and are supported in part by state grants[4].

Adopt Extended Producer Responsibility for Packaging and Paper Products

Extended Producer Responsibility (EPR) programs can provide significant financial benefits to local governments and ratepayers by shifting the cost of recycling from those entities to the producers. In addition, EPR programs bring a level of data reporting, tracking, and transparency that can improve the understanding and performance of the recycling system. The consultant recommends adopting EPR for packaging and paper products (PPP), such as the materials commonly recycled in residential curbside and drop off recycling programs.

- House Bill 2003 and companion Senate Bill 5697 (2022), relating to renewing Washington's recycling system and reducing waste, would have created an EPR for PPP program. The solid waste system-wide cost savings estimated from this policy, as modeled by the consultant and described in Chapter 5, were between $176 and $268 million per year. A majority of these savings come from the transfer of costs associated with recycling programs from residents and local governments to producers of packaging, and includes recycling collection, processing, and education.[5] The savings from this policy could potentially free up funding to maintain and replace aging infrastructure and expand other recycling and waste reduction services.

[4] State grants relied on by local governments include: Local Solid Waste Financial Assistance (LSWFA); Community Litter Cleanup Program (CLCP), and Waste Reduction and Recycling Education Program (WRRED).

[5] 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.

- County and municipal solid waste professionals surveyed as part of this study[6] showed 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.
- The development of an EPR for PPP policy should carefully consider the system impacts the policy would have on local governments that benefit from revenue sharing, as well as material recovery facilities that rely on commodity sales to fund operations.

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

Washington already uses EPR policies to manage certain electronics, mercury-containing lights, pharmaceuticals, and paint. Implementation of EPR programs for solar panels and batteries begins in 2025 and 2027, respectively. 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 consultant recommends using EPR for additional products. This 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 (HHW).

Explore Other Options to Decrease Funding Gaps

Direct Solid Waste Collection Tax to Solid Waste Uses

The solid waste collection tax comes from fees for the collection, transfer, storage, or disposal of solid waste. This tax is an important source of funding, generating more than $56.7 million in fiscal year 2021, according to the Department of Revenue data. Prior to fiscal year 2011, Solid Waste Collection Tax revenues went to the Public Works Assistance Account. These revenues were diverted to either the General Fund or the Education Legacy Trust Account starting in 2011 until fiscal year 2023. The funds have now been redirected to the Public Works Assistance Account. Revenues from the solid waste collection tax can be used to fund solid waste infrastructure, in competition with many other public infrastructure projects. An analysis of loans from this account for 2005 found that only 10% of Solid Waste Collection Tax revenues were used to fund solid waste infrastructure. The solid waste collection tax revenues are currently not used to fund solid waste activities or programs.

The consultant recommends a portion of this funding be targeted for 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 important uses. Similarly, a tax could be assessed on recycling or composting facilities with the revenue generated dedicated to solid waste

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

purposes. However, increasing the cost of recycling and composting may be counterproductive to the state's goal to improve recovery and reduce waste.

Taxes on Plastic and Packaging Materials

Taxes and fees on plastics or all packaging materials can be large revenue generators at the state or local level. However, these revenue sources have not yet proven to provide other benefits to recycling or sustainable materials management programs. The consultant recommends more research before these policies can be recommended as funding tools.

The consultant also notes the importance of clear intentions and transparency on the use of funds when developing taxes and/or fees. This clarity can ensure the funds are used to advance the policy goals, as opposed to being diverted to other purposes. 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.

Sustainable Contracting, Rate Structures, and Tip Fees

Respondents to the local government survey performed as part of this study commonly reported using collection, tipping, or user fees to fund the majority of funding needs, including solid waste-related infrastructure, programs, and services. 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 be reduced. This potential reduction in revenue has been a concern for local government solid waste managers for many years.

The consultant recommends that communities diversify their revenue portfolio by using sustainable contracting mechanisms, rate structures, and tip fees. These can ensure services are benefitting both the rate payer and the local government. Examples include:

- Fees for services with a specified amount earmarked for specific programs or services within the served community
- 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
- 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
- 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

Other Recommendations

In addition, the consultant reviewed the recommendations made in a 2017 report commissioned by Ecology and completed by Cascadia Consulting Group, titled Funding Mechanisms for Solid Waste. They found many recommendations in the 2017 report have yet to be implemented[7] and are still relevant. The consultant made similar recommendations as those in the 2017 report including:

- Continued expansion of EPR programs for additional products such as mattresses, household hazardous waste, and packaging and paper products
- Dedicating some solid waste collection tax revenue to solid waste purposes, in one of a variety of ways:
  - Earmark a portion of the existing tax for solid waste uses
  - Raise the tax and dedicate the increased portion to solid waste uses
  - Expand the tax to cover additional material streams, such as recycling and organics collection, transfer, storage, processing and/or sales, at a lower rate than for waste disposal and dedicate those revenues to solid waste uses
- Provide training to local governments on how to apply the existing funding mechanisms available to them, including:
  - Excise and other taxes and fees via county solid waste disposal districts and collection districts and local board of health fees
  - Sustainable collection-rate and tip fee structures
  - Contract fees and embedded services
  - Service-level standards and mandatory collection
  - Recycling revenue-sharing agreements

The consultant believes their recommendations, combined with those in the 2017 report, provide Washington State with a comprehensive list of policy options to support local jurisdictions in the management of solid waste.

Ecology Recommendations

Ecology agrees with most of the consultant recommendations, based on our knowledge of local government needs, experience with EPR programs, and findings from many other studies. The recommendations Ecology concurs with are:

[7] Recommendations in the 2017 that have been implemented, include: restoring funding to the Local Solid Waste Financial Assistance program; restoring the Waste Reduction, Recycling, and Litter Control Account to its intended purposes; and passage and implementation of two additional EPR programs for paint and pharmaceuticals.

- Maintaining or increasing state grants to local governments, which are an important funding source
- Expanding the use of extended producer responsibility, including for packaging and paper products; EPR programs are the main new source of funding that have been established
- Exploring options to use an existing or expanded portion of the solid waste collection tax for the purpose of providing funding to local governments for solid waste management
- Building sustainability into funding mechanisms in contracts, rate structures, and tip fees, as suggested by the consultant and in the 2017 study
- Utilizing existing tools available to local governments, such as collection and disposal districts

The only recommendation Ecology has concerns about is taxing plastic and packaging materials which we believe needs more time and study before it should be a recommended funding mechanism.

In addition, the 2017 study recommended Ecology provide training to local governments on how to use existing tools and sustainable funding mechanisms. That study also recommended Ecology lead interested parties in developing new ideas, such as adaptations to the solid waste collection tax. If this is desired by local governments, Ecology would need dedicated staff time and resources to contract for expertise to provide training to local governments.

Additional Key Findings

In addition to the Executive Summary and recommendations (Chapter 1), this study contains four further chapters and three appendices. Each chapter address part of the intent:

- A review and update of current funding types
- Funding needs to implement the Washington Association of County Solid Waste Managers (WACSWM) solid waste core services model[8]
- Alternative solid waste funding models
- Evaluating fiscal impacts of recent solid waste management policy proposals

Key findings are shared below by chapter.

Chapter 2: Current Funding Types

Chapter 2 discusses available funding sources and types used to provide local solid waste services. The sub-consultant, Cascadia, researched funding sources that state and local governments are currently authorized to use for solid waste management activities and

[8] https://www.wsac.org/wp-content/uploads/2022/06/WACSWM-Core-Services-Report-Final.pdf

summarized current solid waste-related expenditures by state agencies. Additionally, Cascadia conducted a web-based survey of local governments to learn about solid waste funding types, their rates of adoption, and percent of need met.

Authorized Solid Waste Funding Sources and Mechanisms

The consultant found 29 solid waste-related funding sources and mechanisms currently authorized for use in Washington State. Of these, 11 are implemented at the state level, 17 at the local level, and one — littering and illegal dumping enforcement penalties — can be implemented at both the state and local level. Some of the 29 funding sources and mechanisms are intertwined.

For example, the state's Hazardous Substance Tax serves as a funding source for Ecology's grant programs to local governments. Two of these funding sources were new since the previous assessment of funding sources in 2017: Extended Producer Responsibility (EPR) programs for **paint** (Chapter 70A.515 RCW) and **pharmaceuticals** (Chapter 69.48 RCW). [9]

Funding sources and mechanisms fall into the following categories, which are explained in detail in the Chapter 2 report and Appendix C:

- User fees (including collection or tip fees)
- EPR programs
- Other waste-related fees (e.g. permit fees, contract performance fees, etc.)
- 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 waste, 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)

[9] In 2023, the Legislature passed an EPR program for batteries (Senate Bill 5144), which creates another new funding mechanism.

- 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

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

In the survey[10] of local government solid waste staff, 31 counties and 28 cities and towns responded[11]. They provided information about the availability of waste, recycling, organics, bulky waste, household hazardous waste (HHW) and MRW services, as well as publicly owned solid waste facilities in their jurisdictions. Respondents also identified the funding sources their jurisdiction uses to pay for solid waste services.

The most common funding sources used for solid waste-related programs and services are collection, tipping, or user fees; state grants; and money from utility or enterprise funds[12] (which come from user fees).

In addition to the survey, the consultant performed a supplemental analysis of funding sources, based on solid waste planning documents and budget, for the 12 representative cities and counties. This analysis confirmed the reliance on collection and tipping fees, 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. Those jurisdictions that own processing facilities receive revenue from the sale of commodities (metal, fiber, plastics, etc.), finished compost, or energy.

Survey respondents provided information about how much of their funding needs were met for 13 parts of the solid waste system. This included planning, administration, permitting and enforcement, administration, recycling, composting, HHW, MRW, litter and illegal dump cleanup emergency response, education and outreach, contamination reduction, waste prevention, and construction and demolition (C&D) debris recovery. In general, respondents reported that a higher percentage of service needs were met for planning, administration, permitting and enforcement, recycling, and HHW. This is relative to the lower percentage of

[10] Survey responses were reported as provided and not independently verified and reflect the opinions of, or best available information available to, the staff who were able to participate in the survey.
[11] The Survey tool and survey responses are in the appendices; https://apps.ecology.wa.gov/publications/SummaryPages/2307049.html
[12] 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).

needs met for composting, contamination reduction, education and outreach, litter and illegal dump cleanup, and C&D debris recovery.

Finally, when asked about their interest in additional funding, survey respondents reported they would like more EPR programs to shift financial responsibility from local government to producers and help increase recycling programs and access, especially in rural areas. Respondents were also interested in more funding for organics collection services, staff capacity, and education and outreach related to recycling, organics, and HHW. Some respondents noted they would like new publicly owned organics and recycling processing facilities if there was funding. Also, some counties expressed concern that additional state regulation will be insufficiently funded.

Chapter 3: Core Service Model Needs Analysis

Chapter 3 discusses the research on the solid waste core services model that was developed by the Washington Association of County Solid Waste Managers (WACSWM). The purpose of this model is to create consistency and "a modern solid waste management system that is accessible by all, affordable, and advances positive environmental goals.[13]" The core services model includes the following nine elements[14]:

- Recycling (includes yard debris, composting and scrap metal recycling)
- Waste collection
- Waste disposal
- Household hazardous waste (HHW) (includes fixed sites and events and collection of small quantity generator waste – moderate risk waste (MRW))
- Emergency response
- Enforcement
- Administration
- Education and outreach
- Risk management and safety

The model provides a policy framework designed 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.[15]" The framework recommends minimum standards for disposal and recycling programs and

[13] https://www.wsac.org/wp-content/uploads/2022/06/WACSWM-Core-Services-Report-Final.pdf

[14] Food waste composting is not included as a service in the core services model.

[15] https://www.wsac.org/wp-content/uploads/2022/06/WACSWM-Core-Services-Report-Final.pdf

services in every county, recognizing variances in local infrastructure, access to curbside and self-haul services, and economic disparities between communities. For example, rural areas are not expected to provide curbside collection of recycling or yard debris.

The consultant performed a gap analysis, of the 12 representative counties to determine needs and costs to meet the core services model. The gap analysis surveyed counties for access to:

- Waste curbside collection
- Recyclables curbside collection
- Yard debris curbside collection
- Self-haul facilities that accept waste, recyclables, yard debris, white goods, construction and demolition, and special waste
- HHW facilities and events within the county

Comparing existing service levels and the core services model recommendations, they identified existing program gaps and estimated funding needs over a ten-year period (in unit costs per ton and per capita) to implement the core service model in the 12 counties.

Existing Service Levels

The analysis found the following for the 12 assessed counties, which represent 34% of the state's population (about 2.6 million people in 1.06 million housing units):

- Waste collection is accessible to every resident in the 12 assessed counties.
- Approximately 916,000 (86%) and 853,000 (80%) residential households[16] across the 12 counties have access to recycling and yard debris curbside collection, respectively; however, access varies widely by county.
- Self-haul facilities 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 assessed counties operate at least one HHW permanent facility.

Core Service Model Gap Analysis

The consultant also analyzed needs to meet the model's recommended service levels, as determined by members of WACSWM. These service levels address waste collection, waste disposal, household hazardous waste services, recycling services, and emergency response in urban, suburban and rural areas.

- If curbside collection of recyclables and yard debris were to be made available to every household in cities and towns (not in rural areas) within the 12 assessed counties, these

[16] Residential includes single and multifamily households.

services would need to be expanded to approximately 38,000 households for recyclables and 59,000 households for yard debris.[17]

- About half of the 12 counties may need additional self-haul facilities to meet the recommended service levels for access to waste, recyclables, or yard debris services.
- Capital improvements are needed to maintain existing self-haul facilities and additional facilities to meet future demand for waste, recycling, yard debris, and other solid waste services.

Funding Needs Analysis

The consultant calculated the 10-year funding needed to implement the core services model for the 12 assessed counties. Using the findings from those counties, they projected costs for the entire state.

- The 10-year (2023-2032) funding requirements to implement the core services model in the 12 counties is estimated at $412 million to $470 million. This estimate includes expanding access to additional households, maintaining services at existing facilities, making improvements to facilities, and adding new facilities in response to anticipated population growth within the assessed counties. The funding estimate is equivalent to raising the MSW tipping fee in the assessed counties by $19 to $22 per MSW ton.
- Extrapolated 10-year cost estimates 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 needs ($1.62 billion or 72%-78% of the total).
- Funding needs are 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.
- 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.

Chapter 4: Alternative Funding Mechanisms

Chapter 4 includes a discussion of alternative funding sources used by solid waste programs in other states or countries that may be relevant to Washington. The mechanisms examined were requested by stakeholders or based on the consultant's experience, and not examined in the

[17] Figures 2 and 3 in Chapter 3 provide a detailed explanation of the analysis of these service gaps.

2017 study[18]. Mechanisms looked at included concepts of taxing and Extended Producer Responsibility (EPR) applied to packaging and plastics. They also looked at system approaches of hub-and-spoke initiatives and state-wide technical assistance programs. The study did not include modeling specific budget impacts for Washington State.

Extended Producer Responsibility for Packaging

EPR programs require producers to take responsibility - financial, operational, or a combination of the two - for their products and/or packaging at the end of their useful life. Washington has EPR laws for certain electronics, mercury-containing lights, solar panels, pharmaceuticals, paint and most recently batteries.

EPR can provide significant financial benefits to local governments by covering or reducing costs for recycling or waste handling services. The 2017 report acknowledged the importance of EPR for addressing hard to handle items but did not analyze EPR for packaging and paper products (PPP) as it did not exist in the U.S. at that time. Lately there has been growing activity on EPR for PPP, with new laws in four states and bills in Washington the last three years. Therefore, the consultant looked at different models for EPR for PPP programs, including a full responsibility model, a financial responsibility with municipal collection model, and a partial responsibility model. They recommended EPR for PPP as funding mechanism the state should pursue.

Deposit Return Systems

Deposit Return Systems (DRS), also known as bottle bills, are a proven, sustainable method of capturing beverage containers for recycling and reducing litter. A deposit (typically five or ten cents) is charged on covered beverage containers at the point of sale to act as a monetary incentive for the consumer to return the container for recycling. DRS are in place in ten states.

DRS was not looked at in 2017 report as it was deemed improbable at that time. However, interest in DRS is growing quickly in Washington and elsewhere and bills have been introduced in the past two years.

DRS programs do not directly fund local governments, but they can reduce or remove costs for recycling beverage containers and reduce the amount of litter. Depending on the program, unredeemed deposits are retained by beverage distributors, state agencies, or a combination of the two and may support recycling in the state.

Plastic Taxes and Fees

Plastics taxes and fees are a new concept, driven by the increased concern about plastics in the environment. They have been proposed in a few states, including Hawaii and Washington and have been passed in the United Kingdom, Italy, and Spain. Tax revenues in the Hawaii and Washington bills would have been used for solid waste purposes. The laws in United Kingdom, Italy, and Spain direct fees to general revenues.

[18] *Funding Mechanisms for Solid Waste, Identify Potential Funding Mechanisms*, was commissioned in 2017 by Ecology and completed by Cascadia Consulting Group

While taxes and fees on plastics (or all packaging materials) can be large revenue generators, it is too soon to gage their effectiveness. The consultant recommended that more study is needed on using plastic or packaging taxes as a funding mechanism. They note that to best support local government solid waste management, they should be allocated to a dedicated fund with guidance on how funds are to be used, taking into consideration both rural and urban needs.

Regionalized Systems

Some programs benefit from a 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 related to costs and amount of equipment, personnel, processing, transportation, and marketing that would be needed otherwise. 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 supplemental ideas. While these states have some valuable offerings, there was nothing found that warranted changes to Washington's system or offered significant additional funding or other assistance to local governments.

Chapter 5: Fiscal Impacts from Policies

Chapter 5 covers a unique part of this study -- determining fiscal impacts of policy proposals related to solid waste management. The consultant looked at 23 policies proposed or enacted between 2019 and 2022[19] to assess the fiscal impacts of the policies on the solid waste system. The consultant was not aware of any similar studies or policy impact analyses of this nature.

The goal was to look at fiscal impacts to local government solid waste programs, using the 24 representative cities and counties. But given the difference of each local solid waste system, it

[19] For a complete list of policies analyzed see Tables 1 and 2 in the appendix and Chapter 5: Fiscal Impacts from Policy

was not possible for the consultant to clearly model which costs and savings would accrue to local governments. Additionally there was not a comprehensive review of additional funding and grant opportunities that have been provided by the legislature to support these and other policies. Instead, they modeled systemwide fiscal impacts -- including local governments, rate payers, service providers and others impacted by the policy. This approach ensures all costs and savings are documented, while recognizing the division of solid waste system costs and revenues among stakeholders (e.g., local government, ratepayers, and service providers) varies by jurisdiction. 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. This was considered a shortcoming of the study by the Washington Association of County Solid Waste Managers (WACSWM) and Association of Washington Cities (AWC).

The systemwide approach does not reflect the budgetary conditions of local governments or nuances in policy implementation. For example, policies that move materials from the waste stream into the recycling and composting stream may provide overall system cost savings. However, there are 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; these counties do not enjoy those savings and will instead experience a revenue loss. Despite this challenge, we can generally assume that where policies increase costs, at least some of that cost will be borne by local governments. Likewise, where cost savings are enjoyed, local governments will benefit at some level.

Policy impacts were considered on needs for infrastructure, staffing, grants, planning, outreach, collection, processing, disposal, and disposal revenue loss[20] for high, medium, and low policy impacts. These were summarized into material flow impact and service level impact to waste, recycling and organics collection and processing, as appropriate, to create an annualized fiscal impact five years in the future (2027) to evaluate the policy at full implementation.

Annualized system fiscal impacts for the 24 representative cities and counties by region (northwest, southwest, central, and eastern) and jurisdiction designation (suburban, urban, and rural) to assist in identification of trends and policies with the greatest impact were provided. This evaluation can assist the Legislature and other key interested partners and parties in identifying the level of fiscal impact to provide required service levels and implement new policies.

Fiscal Impacts of Enacted Policies:

Of the 11 enacted policies included in this study (see appendix) the consultant found four result in a net increase in system costs statewide, two create system cost savings statewide, one has

[20] Most local governments rely heavily on income from tip fees at transfer stations or landfills. When less material is disposed, revenue is lost. However, there are costs of managing this waste that are saved when the waste is diverted from disposal. This study found 72% of the tip fee is spent on disposal-related costs of the waste, while 28% of the tip fee is used to fund other work. In other words, there is a 72% savings from diverted waste; while 28% is a cost from the loss of that waste over the scale - called disposal revenue loss.

variable fiscal impact, four have no fiscal impact, and one was modeled with another similar enacted policy proposal.

House Bill 1799 (enacted 2022), now called the Organics Management Law and incorporated into multiple statutes, has the most significant impact of the enacted laws, with estimated net system costs of $50 to $55 million per year statewide[21][22]. Between $33 and $37 million of the costs are associated with commercial organics management requirements, as most jurisdictions do not have non-residential programs for the collection of food waste. While many jurisdictions do have curbside collection of either food or yard waste in place, new residential services will be needed in many areas.

The Organics Management Law, 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 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 financial support, it is likely that local governments and ratepayers will bear some of the burden of capital financing.

Two enacted laws are expected to save local governments money.

- The Architectural Paint Stewardship Program (Chapter 70A.515 RCW; HB 1652 [2019]) reduces system costs by requiring 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.
- Concerning sustainable recycling legislation, (HB 1543/SB 5545 [2019]) amended Chapter 70A.205 RCW to require local governments to create and implement contamination reduction outreach plans. The analysis found this should reduce system costs between $560,000 and $2.48 million by reducing recycling contamination and associated processing costs. While local government planning costs were increased, grants were available to cover these costs.

According to the study findings, recently enacted laws could result in approximately $60 million per year in annualized net system costs statewide. This is equivalent to $19 per household per year, ranging from a savings of $2 to a cost of $102 per household for the 24 modeled representative cities and counties. These costs do not reflect investments by the state to aid in implementation of these laws.

[21] This assessment was performed while Ecology was still determining implementation details of this law; the consultant used the assumptions available at that time, but some may have changed slightly since that time.

[22] These costs do not account for totality of funding and investments made by the legislature to assist with implementation and to defray costs associated with this policy.

Fiscal Impacts from Policies that were not Enacted:

Twelve policies related to solid waste introduced between 2019 and 2002 that were not enacted were also analyzed. Of these, three would have provided solid waste system cost savings, six would have had no fiscal impact on the solid waste system, and three were modeled with other similar bills.

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 bill, referred to as the "Renew Act" 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 and rate payers 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, House Bill 1131/Senate Bill 5144 (also known as the WRAP Act), relating to improving solid waste management outcomes, was considered during the 2023 legislative session but did not advance.

House Bill 1896 (2022), responsible environmental management of batteries, would have resulted in estimated annualized system cost savings of $2M. All cities and counties modeled would also realize increased service levels as result of the implementation of the policy, while cities and counties currently offering battery recycling programs would realize cost savings. The existing battery recycling programs would be assumed to no longer be needed, or costs would be transferred to the stewardship organization. (A similar policy proposal [SB 5144] was introduced and passed in 2023 and is now codified as Chapter 70A.555 RCW.)

The consultant also found that Senate Bill 5219, concerning the management of plastic packaging materials (2021), would have resulted in a funding increase, ranging from $12M to $21M per year, depending on the impact assumptions of the policy. The bill would have instituted a fee on plastic packaging producers that do not meet specified post-consumer recycling requirements. The fee was to be structured to generate $20M to $60M in revenue per biennium and specified that 25% of funds raised would be used for grants to owners or operators of material recovery facilities in order to process more types of plastic packaging in the recycling system. The other 75% of grant funds were to be distributed to cities and counties to improve plastic recycling and for other solid waste management duties, and to cover Ecology's administration costs.

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

Next Steps

Some stakeholders were interested in additional study on this topic. One suggestion was to look for logical funding sources for each element of the Washington Association of County Solid Waste Managers (WACSWM) core service model. In addition, WACSWM has a large list of infrastructure and capital project needs, and it could be useful to explore how the Solid Waste Collection Tax could be used to help provide funding for this.

Given that the focus of the study is on local government needs, it may be beneficial for WACSWM to lead any future studies directly. If it is desired for Ecology to lead further studies, we suggest having interested parties work together on identifying study needs and approaches outside of a legislative process. If additional work by Ecology is wanted, we would need to dedicate staff time and resources.

Conclusion

The consultant concludes that 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.

Ecology makes additional conclusions from this work.

- There are no new funding mechanisms since we last studied this in 2017 other than new uses of existing mechanisms, notably Extended Producer Responsibility Plastic taxes, while new, are still unproven. EPR for packaging and paper products– and for other products – is a proven approach that benefits local governments, residents, and the environment.
- All funding options require political will, including the existing mechanisms available to local governments, such as creating a disposal district or raising tipping fees.
- Fiscal impacts of major policies such as HB 1799 (2022) need to consider local government fiscal impacts and provide funding to help them implement new requirements.

Publication information

This report is available on the Department of Ecology's website at
https://apps.ecology.wa.gov/ecy/publications/SummaryPages/2307039.html

Related Information

- **Financing Solid Waste for the Future Webpage**: Solid waste financing - Washington State Department of Ecology. The 2017 finance studies referenced in this report are available on this webpage and below.
- **Funding Mechanisms for Solid Waste: 2017**
  - Part 1 - Update Current Funding Mechanisms
    - Part Appendix - Stakeholder Survey #1 and Comments
  - Part 2 - Identify Potential Funding Mechanisms
    - Part 2 Appendix: Funding Matrix Database (Excel file)
    - Part 2 Appendix: Utility Cost Recovery Practices and Implications for Solid Waste Funding in Washington
  - Part 3 - Recommended Funding Mechanisms
    - Part 3 Appendix: Stakeholder Survey #2 Feedback on Proposed Options

Contact information

Solid Waste Management Program

Author: Janine Bogar
P.O. Box 47600
Olympia, WA 98504-7600
Phone: 360-407-6900

Website[23]: Washington State Department of Ecology

ADA accessibility

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

To request an ADA accommodation, contact Ecology by phone at 360-407-6000 or email at SWMPublications@ecy.wa.gov. For Washington Relay Service or TTY call 711 or 877-833-6341. Visit Ecology's website for more information.

[23] www.ecology.wa.gov/contact

Appendix

Full reports:

- All reports from the 2023 study (as well as the 2017 study) are available on Ecology's Webpage: Financing Solid Waste for the Future.
- Links to each report and the appendices:
  - Chapter 1: Executive Summary and Recommendations
  - Chapter 2: Current Funding Types
  - Chapter 3: Core Services Funding Needs Analysis
  - Chapter 4: Alternative Funding Models
  - Chapter 5: Fiscal Impacts from Policy
  - Appendices: Local Government Funding for Solid Waste in Washington

Law Language:

- The language from the law that led to this study is below and at this link: https://lawfilesext.leg.wa.gov/biennium/2021-22/Pdf/Bills/House%20Passed%20Legislature/1799-S2.PL.pdf?q=20220323154102
- **HB 1799, Section 104**

1) The department of ecology must contract with a third-party consultant to conduct a study of the adequacy of local government solid waste management funding, including options and recommendations to provide funding for solid waste programs in the future if significant statewide policy changes are enacted. The department must include the Washington association of county solid waste managers, the association of Washington cities, an association that represents the private sector solid waste industry, and other stakeholders in scoping the study and reviewing the consultant's findings and recommendations prior to submittal to the Legislature.
2) The study must include:
   a) Consideration for jurisdictional type, location, size, service level, and other relevant differences between cities and counties;
   b) A review and update of current funding types and levels available, and their rate of adoption;
   c) The funding needs to implement the solid waste core services model developed by the Washington association of county solid waste managers;
   d) Alternative funding models utilized by other publicly managed solid waste programs in other states or countries that may be relevant to Washington; and
   e) An evaluation of the impacts on solid waste funding resources available to cities and counties from statewide solid waste management policy proposals considered by the Legislature or enacted in the last four years, including proposals to:

i) Reduce the quantity of organic waste to landfills;
ii) Manage products through product stewardship or extended producer responsibility programs;
iii) Improve or install new or updated methane capture systems;
iv) Increase postconsumer content requirements for materials collected in solid waste programs; and
v) Other related proposals that may impact solid waste funding resources.

3) The study must evaluate a range of forecasted fiscal impacts for each type of policy change on local government solid waste management programs, including:
   a) The level of service provided by local government;
   b) Costs to the local government;
   c) Existing revenue levels; and
   d) The need for additional revenue.
4) The department must submit the report, including findings and any recommendations, to the appropriate committees of the Legislature by July 1, 2023.

Policy Proposals Analyzed

Tables 1 and 2 present the policies analyzed, including 11 solid waste policies that passed into law and 12 policy proposals that did not become law.

Table 1. Policy Proposals that were Enacted, 2019-2022, included in the study.

Bill Year	Bill Number(s)	Bill Title
2019	HB 1114	Reducing the wasting of food in order to fight hunger and reduce environmental impacts
2019	HB 1543 / SB 5545	Concerning sustainable recycling
2019	HB 1652	Concerning paint stewardship
2019	SB 5397 / HB 1204	Concerning the responsible management of plastic packaging
2020	SB 5323 / HB 1205	Reducing pollution from plastic bags by establishing minimum state standards for the use of bags at retail establishments
2021	SB 5022 / HB 1118	Concerning the management of certain materials to support recycling and waste and litter reduction
2021	SB 5040	Enhancing litter control along state highways
2021	SB 5126	Concerning the Washington climate commitment act

2021	SB 5345	Establishing a statewide industrial waste coordination program
2022	HB 1663	Reducing methane from landfills
2022	HB 1799 / SB 5731	Concerning organic materials management

Table 2. Policy Proposals that were Not Enacted, 2019-2022, included in the study

Bill Year	Bill Number(s)	Bill Title
2019	HB 2360	Establishing the sharps waste stewardship program
2020	HB 2429 / SB 6213	Concerning certain expanded polystyrene products
2020	HB 2656 / SB 6627	Reducing the waste associated with single-use food service products
2020	HB 2722 (vetoed) / SB 6645	Concerning minimum recycled content requirements
2021	HB 1488	Concerning the management of plastic packaging materials
2021	SB 5219	Concerning the management of plastic packaging materials
2022	SB 5286	Establishing a statewide organic waste management goal
2022	HB 1896	Responsible environmental management of batteries
2022	HB 1932 / SB 5658	Concerning the recyclability of products and packaging
2022	HB 2003 / SB 5697	Renewing Washington's recycling system and reducing waste
2022	SB 5740	Providing for a temporary adjustment to waste reduction, recycling, and litter control account
2022	SB 5837	Removing plastic bags as an option for use at retail establishments