KC SWD Comments – Preliminary Needs Assessment
October 30, 2026

General comments:
We appreciate the significant amount of work and effort that went into producing the draft preliminary needs assessment. It offers an impressive and comprehensive first look at Washington's solid waste system and is truly an ambitious undertaking.

For the next iterations of the needs assessment, it will be important to strengthen connections across topic areas, for example, linking recycling capacity with the volume of covered materials currently being landfilled. We also request clearer distinctions between service availability and true access, along with transparent criteria for facility inclusion. In addition, the assessment should identify the barriers that prevent service providers, facilities, and jurisdictions from supplying needed data and outline practical strategies to address those barriers so future datasets are more complete and consistent.

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General	**1.1 Findings**	**Collection contract cost structures vary by jurisdiction because several factors affect rates.** Most collection contracts offer solid waste service as a pay-as-you-throw system, where the cost depends on the garbage container size. Approximately half of municipalities include the cost of recycling in residential garbage rates. Fewer include multifamily recycling. The calculated recycling service cost is approximately $432 per ton.		*Does the $432-per-ton figure include organics service where it is available, or is organics excluded? Since organics can be bundled into the service, this needs clarification. Also, throughout the report, especially in section 4, please specify whether "recycling" includes or excludes organics. In addition, the term "recycling" seems inconsistently applied; although a broad definition is provided, some recycling-rate data suggest that C&D or specialty streams may be*

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		However, this cost is based on limited data.		*included, which obscures the meaning of the results.*
	3.2.2 Scope of recycling and organics management	**Recycling collection** means a generator separates material for recycling, and a service provider collects it or the generator self-hauls it. A material recovery facility sorts the material, or the material goes directly to an end market or broker without additional processing beyond consolidation, such as glass or baled cardboard.		*Suggest adding a clear definition for MRF in the preliminary needs assessment for clarity on how it is represented in the analysis.*
General	**3.3.4 Washington UTC data**	The UTC regulates private utility and transportation companies, including exclusive franchise agreements (G-certificates), between solid waste franchise areas and collection service providers. G-certified collection service providers are required to submit annual reports detailing collection tonnage, revenues, and costs for each tariff area. Service requirements and rates are established through tariffs, and the UTC must review and		*More granular data could be achieved if haulers were required to report at the tariff level rather than the broader G-certificate level. Because G-certificates cover extensive geographic areas and multiple service conditions, reporting only at that level obscures important variations in collection patterns, costs, and performance. Tariff-level reporting would provide finer detail aligned with actual service boundaries, improving the accuracy of the assessment.*

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		approve proposed rate adjustments.		
General	**3.3.7 Primary data collection**	A **Collection Services Survey** collected information on garbage, recycling, and organics programs serving single-family and multifamily residences and public places. We sent it to 54 collection service providers and 321 municipal and county contacts. Eleven collection service providers and 45 municipalities and counties responded. A **Material Recovery Facility Survey** collected information on the infrastructure that processes covered materials, including material flows and processing capacity. We sent it to seven material recovery facility contacts during the engagement window and received responses from three facilities. An **Organic Facility Survey** requested information on infrastructure that may process compostable covered materials, including		*Low response rates across the surveys limit the representativeness of the preliminary needs assessment and introduce uncertainty into statewide estimates of existing services, infrastructure, and capacity. The absence of data from many service providers, jurisdictions, facilities, and Tribal Nations restricts the assessment's ability to fully identify gaps or regional variations. Future assessment cycles should apply expanded outreach, clearer communication, and improved reporting mechanisms potentially including streamlined tools or mandatory reporting where feasible to increase participation and ensure more comprehensive data coverage.*

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		inbound organic material types and volumes, facility capacity, and acceptance of compostable products. Ecology sent it to 65 facilities that may collect and process covered materials. 24 facilities provided data. A **Transfer Station and Public Drop-Off Facility Survey** collected information on transfer station facility operations, accepted materials, and capacity. We surveyed 160 facilities during the engagement window and received responses from 52 facilities. A **Tribal Survey** attempted to gather information on Tribal access to recycling and composting programs, solid waste facility and infrastructure needs, and overall materials management practices. We collaborated with the Tribal Solid Waste Advisory Network (TSWAN) to distribute the survey to Washington Tribes. We received two responses, which are not considered		

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		representative of Tribal communities statewide. We are continuing engagement efforts to inform the needs assessments for a more comprehensive understanding of existing conditions, identify service and infrastructure gaps, and inform future program opportunities for Tribal Nations.		
General	**3.4 Crosscutting data quality and limitations**	**Service provider registration data did not reflect all facilities and regions in Washington.** Although the Recycling Reform Act requires service provider registration and reporting, not all service providers identified are currently registered. Additionally, service provider registration predated the draft preliminary needs assessment and did not capture all detailed information to support the analysis.		*Because service provider registration data is incomplete and predates the preliminary needs assessment, it does not fully represent all facilities or regions in Washington and lacks the detail needed for robust analysis. These gaps limit the accuracy of the assessment and highlight the need for updated, comprehensive registration and reporting requirements in future iterations.*
Technical	**4.1 Key Findings**	The estimated recycling service cost is about $432		*If the average per ton is based off of 100 data points, and not*

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		per ton, based on service provider registrations and surveys. We have low confidence in this estimate because there are few data points and the reported costs are not consistently defined. More complete service provider data would improve the estimate.		*a weighted average, what approach will Ecology and consultants plan to take in the full needs assessment to better represent the cost per ton?*
General	**4.2.2 Limitations**	Responses to the mid-2026 surveys were also limited. Forty-three municipalities and nine haulers serving 26 jurisdictions responded, but only seven municipalities and five haulers serving five jurisdictions provided both cost and tonnage data. Four municipal responses and two hauler responses added data that were not included in the original registrations. The registration forms and surveys asked for costs and tonnage by service category but did not define the categories in detail. Respondents may therefore have reported gross or net costs, included or excluded revenue from recycled		*The limited number of responses, and the even smaller subset that provided both cost and tonnage data, raises concerns about the reliability and comparability of the mid-2026 survey results. Inconsistent reporting practices, unclear category definitions, and missing data from several haulers reduce the ability to draw accurate conclusions about program performance or system costs. These gaps also create uncertainty about whether key service areas and material streams are adequately represented. Addressing these issues will require clearer reporting guidance, standardized definitions, and improved participation in*

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		materials, or used different definitions of drop-off service. Some totals may also have used different measures or units, such as garbage collection costs or costs per customer instead of annual totals.		*future data collections to ensure the full needs assessment reflects consistent, complete, and representative information.*
General	**4.2.2 Limitations**	UTC annual reports did not list all relevant expenses, and 47 of 50 reports were heavily redacted. UTC tariffs showed customer charges but did not include the participation data needed to calculate service costs reliably.		*These gaps undermine the accuracy of the preliminary needs assessment and highlight the need for more transparent, complete, and standardized financial reporting in future cycles.*
General	**4.3.2 Costs**	Contracts rarely provide detailed recycling costs because providers often consider them confidential. Municipalities also may not be able to separate recycling costs when they are included in garbage rates. Some municipalities said their providers declined to share costs directly but planned to submit them through registration.		*Because many providers treat recycling costs as confidential and municipalities cannot always separate these costs from bundled rates, it is unclear how the necessary cost information will be obtained for future analyses. With UTC reports also heavily redacted and lacking participation data, a clear approach is needed to secure essential cost details while respecting confidentiality constraints.*

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		UTC annual reports did not list all relevant service expenses. In addition, 47 of the 50 reports had substantial information removed to protect confidentiality. Tariffs listed customer charges, but we lacked participation data, especially for multifamily properties. Without these data, we could not use charges to calculate service costs reliably.		
Technical	**4.3.2 Costs**	The service charge generally covers vehicles, equipment, labor, containers, collection, transport, processing, customer service, administration, overhead, and provider profit. Contracts may adjust rates using a price index or a fixed increase. Some also include credits or charges linked to recycled material prices and processing fees.		*Consider including "public/customer outreach" as this is an "additional" service outlined in many contracts.*

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General	**4.3.2 Costs**	Providers rarely share detailed cost information beyond contract rates because they consider it commercially sensitive. This makes underlying costs difficult to evaluate. Local UTC tariffs may provide a useful comparison for customer rates in the same area.		*Because providers do not share detailed cost information, UTC tariffs may show higher rates than contract pricing, making it difficult to assess true service costs.*
Editorial	**5.2.1 Scope and approach**	The available data do not separate public places from other nonresidential sources.	The available data does not separate public places from other nonresidential sources.	
General	**5.2.2 Limitations on generation and collection estimates**	This analysis draws on several data sources that vary in completeness and consistency. We could not estimate all materials or sources because some composition data were unavailable, and we matched material categories across studies to the assessment material lists as closely as possible. Some source data come from 2020 through 2023, when pandemic-related changes		*Because the data sources vary in completeness, lack detail for certain material streams, and include self-reported information that may be inconsistent, the analysis may not fully distinguish key waste sources or verify estimates.*

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		may have affected waste generation and composition. Available data do not allow us to separate residential from nonresidential self-hauled garbage or identify waste from public places separately. We also lacked producer data to verify the estimates. Haulers and processors self-report recovered tonnages, which may create differences in how entities report data.		
Editorial	**5.3 Supporting analysis**	Service providers collect most of the waste generated in Washington. They collect an estimated 7.4 million tons, or 80 percent of the 9.2 million tons generated, while the remaining 1.8 million tons are self-hauled. **Error! Reference source not found.** shows the 4,271,223 tons of **materials collected by service providers from residential generators** in 2024. Garbage accounted for 2,622,372 tons, recycling for 1,083,702 tons, and organic materials collection.	Service providers collect most of the waste generated in Washington. They collect an estimated 7.4 million tons, or 80 percent of the 9.2 million tons generated, while the remaining 1.8 million tons are self-hauled. **Error! Reference source not found.** shows the 4,271,223 tons of **materials collected by service providers from residential generators** in 2024. Garbage accounted for 2,622,372 tons, recycling for 1,083,702 tons, and 565,150 tons organic materials collection.	*Missing the organics tonnage.*

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Technical	**5.3 Supporting analysis**	Table 11. Amount of materials self-hauled by collection stream Geography: Northwest Self-haul garbage (tons): 809,774 Self-hauled recycling (tons): 98,534 Self-hauled organics (tons): 11,957		*King County recorded more than 19,000 tons of yard waste brought to transfer stations in 2024, with Seattle recording approximately 6,800 additional self-haul organics tons; therefore, this combined figure may be inaccurate.*
Technical	**5.3 Supporting analysis**	Table 13. Estimated tons of covered materials collected from residences by service providers by stream in 2024. Organics (tons)		*Should the assessment explicitly note that plastics, glass, and metal found in organics streams are contamination and will always be treated as such, with a portion ultimately returning to the garbage stream as residuals?*
General	**5.3 Supporting analysis**	Table 14. Estimated tons of residential covered materials self-hauled in 2024. Wooden pallets, crates, other packaging: Generation (tons): 28,892		*This does not seem accurate – implies that all recorded self-haul pallets are going into garbage.*

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		Garbage (tons): 28,892 Recycling (tons): 0 Organics (tons): 0		
General	**6.0 Collection service levels and availability**	**Error! Reference source not found.** summarizes the requirements and data used to evaluate collection services. We lack service availability data for 19 percent of multifamily residences. Public-place coverage is also poorly documented. More provider and local government data would help identify service gaps and improve the baseline for the full needs assessment.		*What approaches will be taken that could improve participation in providing baseline data for the full needs assessment?*
General	**6.1 Key findings**	Curbside recycling collection is more limited in the Central and Eastern regions. Availability for single-family residences is 65 percent in the Central region and 69 percent in the Eastern region compared to 91 percent statewide. Availability for multifamily residences is 23 percent in the Central region		*Curbside recycling is less available in the Central and Eastern regions, and actual access is further reduced when property managers choose not to subscribe. This highlights the need to distinguish clearly between service availability and true household access.*

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		and 29 percent in the Eastern region compared to 69 percent statewide. Existing refill and reuse infrastructure is not currently widespread. Availability for multifamily residences may be further limited by property managers opting out of curbside recycling programs, even when available in their area.		
Technical	**6.3.4 Refill and reuse infrastructure**	The survey asked municipalities about refill and reuse programs in their jurisdictions. Bulk grocery refill was the most commonly identified program. Other examples included reusable cups, reuse systems at events, and refill stations for cleaning and personal care products. No municipalities provided data on the amounts of material moving through these programs.		*This section does not provide a robust overview of existing reuse programs. It omits common examples such as brewery and dairy glass return/refill systems, growlers, reusable CSA boxes, and plant pot return and reuse, all of which should be acknowledged to more accurately reflect current reuse activity.*
Editorial	**7.1 Key findings**	The seven municipal recovery facilities in the	The seven ~~municipal~~ material recovery facilities in the inventory are privately owned and operated.	*Replace text*

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		inventory are privately owned and operated.		
General	**7.1 Key findings**	Acceptance of compostable products is limited. Four organics survey respondents (17 percent) accept certified compostable plastic films and liners, and three (13 percent) accept certified compostable rigid plastics. Facilities estimated that investments of more than $1 million per facility may be needed to begin processing compostable products. They identified contamination from look-alike and non-compostable products as a major barrier. Contamination affects staff time, equipment, product quality, and compost sales. Some facilities said that maintaining organic certification and access to organic farming markets is more valuable than incentives to accept compostable packaging.		*Given the high contamination risks and significant investment needs identified by composting facilities, the assessment should more directly evaluate how limited acceptance of compostable products may affect the compost market. This topic warrants deeper exploration to understand potential market impacts and operational challenges.*
General	**7.2.1 Scope and approach**	We combined annual reports, service provider registrations, permits, survey responses, and follow-up		*The assessment does not clearly explain the criteria used to determine which MRFs were included or*

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		information in three databases: transfer stations and drop-off sites, material recovery facilities, and organics facilities. We summarized records by facility type and Ecology's four regions. The inventory in this report includes 232 facilities: 83 transfer stations, including 65 with public drop-off services; 77 standalone drop-off sites; seven MRFs; and 65 organics facilities. Transfer stations with drop-off services are counted once in the combined total.		*excluded, and advisory council members noted that some smaller MRFs were omitted. Additionally, subscription-based collection services like Ridwell were not reflected, despite their role in managing certain materials. Clarifying the inclusion criteria and expanding the scope to account for smaller facilities and alternative collection services may provide a more accurate picture of the statewide system and the materials entering it and their intended end markets.*
	7.2.2 Limitations	Survey participation varied by facility type, and some responses were incomplete. Results may differ from conditions at facilities that did not respond. Small drop-off sites that do not report to Ecology may also be missing. We supplemented records where possible, but the inventory may not include every site. Definitions of facility types also differ across reporting systems,		*Because survey participation was inconsistent and some facilities were not captured, the assessment should clarify how these gaps will be addressed. Future work will need more consistent outreach and clearer facility definitions to ensure a more complete and comparable inventory.*

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		which can limit comparisons.		
General	**7.3.1 Drop-off sites and transfer stations**	Because facilities measure and report capacity in different ways, we cannot readily develop a consistent statewide estimate. More consistent data would support future planning and capacity assessments.		*Same comment as above; this comment shows up multiple times in the document but there is not a clear approach identified to address it.*
Technical	**7.3.2 Material recovery facilities**	Washington material recovery facilities have approximately 900,000 tons of total recycling processing capacity, shown in **Error! Reference source not found.**. In the next 2 years, one material recovery facility in the Southwest region will become a transfer facility. Materials managed by this facility are not included in the total tonnage below as the operator plans to direct those materials to an out-of-state material recovery facility in the future.		*It is unclear why the assessment excludes current tonnage managed by the Southwest MRF based on the operator's future plans. The data should reflect how materials are handled today, as relying on projected changes risks undercounting material currently processed in the system and creates gaps if those future plans shift.*
General	**7.3.3 Organic materials management**	The Recycling Reform Act requires that the preliminary needs assessment identify compost facility capacity. We also considered other organic materials		*The assessment should acknowledge that some anaerobic digestion and other organics facilities may dispose of covered materials instead of processing them.*

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		management facilities, such as anaerobic digestion facilities, because they may process covered compostable products, including certified compostable paper and plastic.		
General	**8.2 Methodology**	We developed an inventory of facilities known or reasonably likely to use recovered covered materials from Washington. We linked covered material categories to the material grades that buyers purchase, identified potential end markets, and compiled available capacity information. We also reviewed trade data to describe exports. This approach establishes a baseline of market pathways and information gaps for the full needs assessment.		*Were innovations and facilities in development also considered? Such as startups and other ventures?*
General	**8.2.1 Scope and approach**	Capacity figures come from available facility information and estimates. They describe total facility capacity, rather than capacity reserved for Washington. Facility counts		*What are Harmonized System commodity codes? Is there another term for this or can a definition be provided in an appendix if not already provided.*

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		may overlap across commodities. We used U.S. Census Bureau trade data and Harmonized System commodity codes to describe export activity. Those codes group materials more broadly than the statewide collection lists. We also used expert input and RFI responses to supplement the facility inventory and trade data.		
General	**8.3.3 Glass and ceramics**	The covered material list includes several types of glass and ceramic packaging. These include glass bottles and containers, ceramic packaging, composite packaging, and household hazardous waste glass packaging. Currently, only glass bottles and containers have a commodity market. Processors market this material as mixed glass. Beneficiation removes contaminants and prepares recycled glass to meet manufacturers' specifications. Glass		*Will the needs assessment evaluate whether separating clear and colored glass could improve glass collection outcomes? This practice is used in other regions and countries, and the assessment should consider its potential benefits.*

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		manufacturers then use the processed glass to make new products.		
Technical	**8.3.7 Capacity gaps**	**Glass has experienced a significant reduction in in-state manufacturing capacity following the closure of a major local bottle manufacturing facility.** This reduction makes the state more dependent on beneficiation facilities and regional manufacturers in the western United States.		*Should the needs assessment address the factors that led to Ardagh's closure and the market constraints that contributed to it?*
General	**10.1 Service costs**	**We need more complete cost data from service providers to improve confidence in the service costs estimates.** We recommend standardized data metrics to make data directly comparable between entities.		*How feasible would it be for service providers to modify their data systems to support this request, and is such a change practical at this stage? What alternative approaches could be considered if system changes are not realistic?*
General	**10.2 Covered materials collected**	**We need more data to address remaining gaps in covered material generation and collection from drop-off collection sites and public places.** Statewide studies could help estimate residential drop-off quantities and composition.		*What would the timeline look like for this? What are the identified public places that should be targeted?*

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		Targeted public-place studies could improve estimates of the materials generated and collected there.		
General	**10.3 Collection service levels and availability**	**We need more data to understand participation in collection services and identify gaps in service availability**. Future data collection should measure actual participation rather than assume full participation in areas with mandatory collection requirements. We also need a more complete inventory of public place recycling and organics collection services, including service locations, service levels, and collection arrangements. These data would help identify areas with limited or no service and improve statewide planning.		*More specificity is needed about where participation and service availability gaps occur. If these gaps are widespread, the assessment should clarify what worked in prior approaches and what can be improved to better target future data collection.*
General	**10.3 Collection service levels**	**We also need more information on refill and reuse programs and Tribal collection systems.** Additional data on participation in refill and reuse programs and the amount of waste they		*These two areas should be addressed separately, as each requires a distinct strategy to obtain the needed data. For the next iteration, the assessment should outline specific steps for engaging Tribes. For reuse, the*

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		prevent would help assess their contribution to waste reduction goals. We recommend continued engagement with Tribes to better understand existing collection programs, infrastructure, service needs, data gaps, and opportunities for improvement.		*current data gap may be difficult to fill, so the assessment should also describe a feasible methodology for estimating reuse activity if direct data cannot be collected.*
General	**10.4 Statewide facilities and processing capacity**	**We need more detailed information on the capacity and operations of Washington's recycling infrastructure.** Site visits to material recovery facilities could provide information on current technologies, performance, operational improvements, capital improvement plans, and associated costs. We also need standardized data on transfer stations and drop-off collection sites, including throughput, operating constraints, and processing functions. These data would help determine how much additional material existing facilities could manage and identify opportunities to use existing infrastructure to		*Given the challenges of implementing standardized practices, how can the assessment evaluate and interpret results from non-standardized datasets, and what approaches can help ensure data are still comparable and useful?*

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		support RRA implementation.		
General	**10.5 Current markets**	**We also need more information to determine whether the materials collected consistently reach responsible end markets.** The full needs assessment will evaluate whether end markets provide sufficient, stable, and accessible outlets for Washington-generated covered materials and consider factors such as transportation requirements, facility specifications, market demand and stability, and available capacity. The analysis should pay particular attention to material pathways with limited traceability or inconsistent facility acceptance. We also recommend monitoring market conditions over time because changes in commodity prices, facility operations, processing technologies, and manufacturing demand can		*The draft notes that Washington lacks in-state end markets for recovered plastics, but the assessment should also examine how other regions have successfully developed plastic end markets. Identifying the factors that enable these markets, potentially with input from networks such as the U.S. Plastics Pact. This could help clarify what conditions or strategies might support similar development in Washington.*

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		affect end market availability.		