

SWAC Advisory Committee Meeting

Oct. 18, 2024 - 9:30 a.m. to 11:30 a.m.

Virtual Meeting (Zoom)

<u>SWAC Members Present</u>		<u>King County Staff</u>	
April Atwood, Marketing and Education		Ali Blum, SWD staff	
Jay Blazey, Manufacturer		Sylvaine Bucher, SWD staff	
James Borsum, Labor Representative		Theresa Curry Almuti, SWD staff	
Alissa Campbell, Waste Industry		Bonnie Fluckinger, King County PSB	
Amy Lam, Local Elected Official		Wen Huang, SWD staff	
Brett Lohrman, Labor Representative		Morgan John, SWD staff	
Bill Louie, Citizen Representative		Patty Liu, SWD staff	
Laura Mork, Local Elected Official		Pat McLaughlin, SWD Director	
Leah Tischler, Public Interest Group		Amy Ockerlander, SWD staff	
Heather Trim, Recycling Industry		David Pierce SWD staff	
Wendy Weiker, Chair, Waste Industry		Yolanda Pon, Public Health – Seattle & King County	
		Hannah Scholes, SWD staff	
		Isabelle Trujillo, SWD staff	
		John Walsh, SWD staff	
<u>Guests</u>			
Katie Jerauld, Dept. of Ecology		Rich Vahl, Waste Connections	
Brad Lovaas, WA Refuse and Recycling Association		Hans Van Dusen -- Consultant	
Andi Parnell, Sound Cities Association			

Call to Order and Introductions

After introductions, Chair Weiker called the meeting to order at 9:36 a.m.

Meeting Minutes

Louie moved to approve the September minutes. Weiker seconded. The minutes were approved unanimously.

Public Comment

Jerauld shared that Washington State Department of Commerce’s Industrial Symbiosis Program grant applications are open through Nov. 1. The program is a catalyst for transforming industrial waste byproducts, such as heat, energy, water, and biomass as well as materials, into added-value resources. Funding is open to any private, non-profit, tribal or public/government entity working to support the reduction, reuse or elimination of industrial waste to benefit Washington’s circular economy. There is up to \$2,850,000 available, and each applicant can apply for \$150,000 to \$500,000 per grant. Please visit here for [more information](#).

Next, Ecology will be hosting four Regional Organics Management Summits to prioritize organic materials management goals, strategize with local partners, and look at the infrastructure strengths of each region. These summits will be facilitated by Ecology staff and our contracted facilitator. Each summit will be an in-person event held from 9 a.m. to 4 p.m. Please mark your calendars with the information listed below and watch for updates with details about the venue, registration, and agendas. Our region’s summit, the Northwest region, will be on May 1, 2025, in Everett, WA. Please

mark your calendars with the information listed below and watch for updates with details about the venue, registration, and agendas.

- Southwest Region: April 29, 2025 in Lacey or Olympia (TBD), WA
- Northwest Region: May 1, 2025 in Everett, WA
- Central Region: May 7, 2025 in Wenatchee, WA
- Eastern Region: May 8, 2025 in Ritzville, WA

Lastly, the EPA has announced available funding for recycling and organics projects. The funding is available for tribes, communities, and coalitions. The first grant is the Solid Waste Infrastructure for Recycling (SWIFR) Grant Program which are available to communities and tribes. Awards are available for two categories of applicants. The recycling funding for communities will provide awards ranging from \$500,000 to \$5 million each. Applications are due December 20, 2024. The recycling funding for tribes and intertribal consortia will provide awards ranging from \$100,000 to \$1.5 million each. Applications are due March 14, 2025. Eligible projects will improve collection and transport systems, and processes related to post-use materials that can be recovered, reused, recycled, repaired, refurbished, or composted. Read more about the [SWIFR grants for communities](#).

The second grant is the Recycling Education and Outreach (REO) Grant Program. This grant program will provide approximately \$39M for one award, and applicants must be a coalition. Read more about eligible applicants and activities for this [funding opportunity](#). Ecology staff attended the informational webinar at the end of September to learn more and can provide additional information as needed.

SWD Updates

McLaughlin provided the SWD update.

Tonnage update

Tonnage is up 1.34% through August (563K tons) compared to last year at the same time. That's a little over 7,400 tons more than this time last year.

We have seen a consistent increase in the percent of tons that come in from commercial haulers as opposed to self-haul customers.

Transactions (503K through August) have rebounded from a slow first quarter and are now slightly ahead of last year at this time (+2,563, an increase of 0.51% over last year at this time).

Yard waste tonnage (11K through August) is down from this time last year (-1,271, a decrease of 10.14% over last year at this time).

Construction update

We went through a design and procurement process last year to identify some very modern equipment to replace items at our top load stations. Our top load stations are our oldest facilities and lack many of the modern equipment and technology that newer facilities have. We started with Algona but to replace this equipment, a significant portion of our capacity must be taken out of service. This impacted commercial haulers for over a month, and it was beginning to cascade into unbearable constraints in/around Algona service area.

To provide relief from disruptions caused by the extended construction period at the Algona Transfer Station, we made project changes to postpone the second packer replacement and resume normal operations. The station reopened fully to commercial haulers on Thursday, Oct. 17.

In the future, work will still need to be completed to replace the second packer at the Algona Transfer Station; it is older equipment that is susceptible to breakage. However, deferring this work to a future date will allow us more ample planning time with cities and haulers to coordinate on strategies to minimize disruptions.

We are preparing to begin the replacement at the Houghton Transfer Station on Nov. 11. In preparation for that, we have provided notice to the public and have been in discussion with the haulers to prepare for that.

We'll be bringing the lessons we learned – both on construction and how to minimize impacts – to future replacement projects at Houghton, Renton, and Algona.

This is one of those painful but necessary processes that we go through. As the new refuse crane became operational at the Algona Transfer Station yesterday, the old crane went down, and we had to repair it. We will continue to do our best to support our operations and customers during this period. We will keep everyone informed during this process.

Open House Recap

On Sept. 30 and Oct. 9, we held two Long-Term Disposal Open Houses for Advisory Groups and ILA partners to learn about SWD's work to date and opportunities for future involvement.

There was strong representation from our Advisory Committees and in total, we had participation from over 20 cities. It was wonderful to see a great turn out and have the opportunity to hear from participants and answer questions.

We anticipate the consultants will deliver a draft of the Long-Term Disposal Decision report within the next week. We will be uploading it to the Long-Term Disposal Extranet so that Advisory Committee members can add comments simultaneously. There will be 2-3 weeks to provide comments before we work to finalize the report.

2025 Rate Notifications

On Sept. 30, SWD sent a 2025 rate notification to cities, haulers, and other interested parties.

Additional messaging about the new rate to the public and solid waste facility customers will begin in mid-October and continue through the end of the year.

Vashon Recycling and Transfer Station Zero Energy Certification

With installation of a new [solar array](#) and other energy-saving features completed, the Vashon Recycling and Transfer Station has been Zero Energy Certified by the [International Living Future Institute](#), meaning that over the course of a year the facility generates as much or more energy through solar power than it draws from the electricity grid.

SWD has also installed large solar arrays at the Enumclaw and Shoreline transfer stations and is expanding the solar panels at Bow Lake. We are also pursuing the [Living Building Challenge – Energy Petal](#) certification for the South County Recycling and Transfer Station, achieving net positive energy performance when certified. The Northeast Recycling and Transfer Station, while still in final environmental review, is also planned to include features to reduce the carbon footprint of the construction and operations of the facility.

All of this work is part of our division's commitment to [King County Strategic Climate Action Plan](#) goals, which include 20 county projects gaining Zero Energy or Living Building Challenge certification by 2025, and an overall 80% reduction in greenhouse gas emissions from county operations by 2030.

MSWAC Update

No update.

Disaster Debris Management Framework Support Letter

Blum led this.

Changes were made to the letter based on feedback from the committee at the October SWAC meeting.

Mork motioned to approve the letter. Louie seconded. Motion approved unanimously.

2025 Meeting Time

Blum led this.

There has been conversation about moving SWAC meeting times. Blum will send out a doodle poll for members to complete to determine a new meeting time for 2025.

Long-Term Disposal Study: Non-economic and Non-Environmental Criteria for Mass Burn and WEBR

Liu and Walsh presented this information.

Operating History Criteria Evaluation Results – Mid-Range Tonnage

	MASS BURN	WEBR
Proven Performance	Successfully utilized for over 40 years in North America at tonnage needed. Long Beach Facility closure due to cost of upgrades and end of lease.	30 years of commercial operations at tonnage needed. In recent years, Snohomish and Skagit counties have had to temporarily close transfer stations due to interruption of rail service due to weather, fire, and labor issues. Rail line outage would require transport by truck to landfill.
Major Safety Incidents	Long term operating facilities that upgrade periodically have a good safety record. Recent fire with Miami-Dade facility due to older facility with outdated fire controls.	Industry's safety-centered approach to investments and operations delivers overall improvements that have made the last decade the safest ever for rail.
Environmental & Regulatory Compliance	Long term operating facilities that keep up with regulatory requirements - such as Best Available Control Technology standards - have good environmental record. EPA's 2024 proposed emissions standards for updated emission control systems would have to be complied with.	Regulatory compliance and oversight are overseen at both the Federal (Federal Railroad Administration) and State (Washington Utilities and Transportation Commission) levels.

Logistics & System Capability Criteria Evaluation Results – Mid-Range tonnage

	Mass Burn	WEBR
Operating Life of Facility	20-40 years	The three rail served landfills have a combined life span of over 300 years (Based on current and projected waste disposal volumes).
Permitting / Construction / Siting Considerations	7-10+ years to site, design, permit and construct a site. Factors depend on size of facility (10-20 acres), zoning/land use & community involvement. Industrial zoning, distance to sensitive receptors, ESJ considerations, environmental impacts to be considered. Siting and permitting difficult.	NA - The WEBR option for this study does not include siting, designing, and constructing a County owned IMF. Some improvements may be needed at IMF to accommodate King County waste (estimated at \$1 to \$2/ton).
Compatibility with Existing Collection System	High compatibility.	

Capacity and flexibility evaluation results (mid-range tonnage)

	Mass Burn	WEBR
Waste Type Composition and Acceptance	Non-hazardous municipal waste accepted.	
Capacity/Minimum Waste Required	Technology is capable of processing amount of waste from this tonnage scenario.	
Waste Volume / Tonnage Flexibility	<p>Has a broad acceptable criterion. Can take a broad range of energy values and material types.</p> <p>One-time emergencies or catastrophic event addressed in design of back-up systems. Back-up alternative facility should also be identified for emergencies or failures.</p> <p>Cannot ramp down operations as easily as WEBR and capital cost creates incentive to maximize tonnage to the facility</p>	<p>Both serving railroads indicated that tonnage scenario volume could be accepted although traffic and congestion as capacity is used on railroads a factor.</p> <p>One-time emergencies or catastrophic event impeding access to rail transport requires back-up facility to be identified.</p>
Residuals Management	Ash would need to be disposed of in a separate ash monofil. CRLF and Roosevelt LF's considered for WEBR option in the study have ash monofils and could handle residual ash from the proposed tonnage scenario.	No residual waste to be managed.

Social criteria evaluation results – mid-range tonnage

- The updated job number is 10 for WEBR and 48 for mass burns within King County.

	Mass Burn	WEBR
Environmental Justice & Social Justice/Equity (ESJ)	Future siting to identify communities around potential facility locations and transport corridors and evaluate per EPA's Environmental Justice Screening and Mapping Tool and Washington Environmental Health Disparities Map. Social criteria to also consider exacerbation of an existing disparity.	
Number of Jobs Created	48 Estimated <ul style="list-style-type: none"> Minimal skills - 5 Technical skills - 26 Advanced - 17 	20 Estimated ^[1] <ul style="list-style-type: none"> Minimal skills - 0 Technical skills - 19 Advanced - 1
Number of Truck/ Trips Per Day (one way)	158 (round-trips from Mixed Waste MRF to facility, 20% additional trips to IMF for ash disposal and metals recycler)	132 (round-trips from Mixed Waste MRF to IMF)
Other Potential Impacts (Air/ Odor / Noise / Groundwater)	<p><u>Air:</u> Primarily CO2, CO, NOx, VOC's, SOx emissions. Substantially reduced through regulatory requirements.</p> <p><u>Odor and Noise:</u> Primary source are trucks entering facility/Tip Floor.</p> <p><u>Groundwater:</u> Minimal impacts if facility properly designed/maintained.</p>	<p><u>Odor, Noise, Vectors, and Vibration:</u> Primary source are trucks entering facility and/or tipping floor</p>

[1] Based on need for additional labor to load/unload intermodal containers at existing IMF.

Evaluation summary of findings

- Mass burn
 - Established technology for quantities and types of waste projected for King County.
 - Capital costs higher than WEBR, typically requiring energy markets and economies of scale to ensure financial feasibility.
 - CETA restricts electricity from WtE facilities from entering the grid in WA, can be used for facility or sold out of state. WtE facilities subject to CCA cap-and-invest program.
 - Process produces emissions that require proper treatment and management.
 - Residuals include fly ash and bottom ash waste that require treatment and proper disposal.
 - High level of public opposition due to air pollution concerns.
 - Environmental impacts similar or less than WEBR except for global warming potential and human health toxicity – cancer potential (assuming no sale of electricity to grid).
- Waste export by rail (WEBR)
 - Established disposal option for other municipalities in WA
 - Contracts with railroads typically span 5-10 years
 - Adequate rail and landfill capacity exists
 - Disposal costs can be less than mass burn depending on contract with railroads
 - Transport of MSW in the PNW include service delays, track congestion, intermodal container shortages, (rare) weather-related outages and a lack of flexibility if a shipper wants to change the origin or destination of its cargo
 - In recent years, Snohomish and Skagit counties have had to close transfer stations due to lack of rail service access/capacity

Trim commented that the Spokane incinerator will be the last incinerator on the West Coast because the last incinerator in California announced that they were closing. The incinerators in Oregon and Minnesota recently announced that they were closing too. She commented that the trend in the United States and the world is to not have incinerators.

Trim wanted to know what percentage of the residual waste ash is. Liu believed it was 5% but was not sure if that related to weight or volume. We have the official number in our documents. Trim thought that number was closer to 20%.

Halverson added that the original 20% related to volume but when it's by weight, the number is closer to 10%. Liu said that since we are measuring the cost per ton by weight, we are putting more emphasis on the weight percentage.

Mork asked if we could describe the reasons why Snohomish County and Skagit County had to close down their transfer stations. Liu asked Ockerlander or McLaughlin to respond. McLaughlin shared that over the last several years (not consecutive years), the rail lines have been subject to weather conditions. During the summer, the hills along the Columbia River have caught fire, creating unsafe passages. During the winter, those same areas have been susceptible to ice storms and trains could not pass through. More recently, there was a lack of container and labor availability that impeded the capacity of the demand.

Weiker added that Republic Services has the disposal contract with Snohomish County and a couple years ago, the Burlington Northern had labor challenges that led to backups. This also happened in Skagit County and their new disposal system is with Waste Management where they're trucking waste to their intermodal closer to Seattle. This gets waste further down the line and out of their intermodal in Skagit County. The transfer stations were closed for many reasons – labor, containers, wildfires, mudslides, and a combination of things that are not typical. Waste Management has a similar rail system with the Union Pacific and both systems rely on the same technology, labor and equipment. Like every system, there are variables that sometimes negatively impact the system and plans.

Mork stated that those are significant problems and knew that Amtrak has problems regularly because of the train tracks. People need to remember and understand how much extra capacity we must have to be able to levy that. Ockerlander said Congressman Rick Larsen has been working on rail issues for many years and is working to address the safety and staffing issues to ensure the long-term dependability of the rail system.

Borsum added onto Trim's incinerator comments and said that he was able to meet some people who were impacted by the incinerator in California. There are social and environmental justice issues with the incinerators because they have historically been placed in lower-income communities that have often led to health issues for its residents.

Trim said that the train from the Seattle yards to the landfill goes 6-days a week at 3 p.m., and the trains carry more than just Seattle waste. If we end up with the Oregon landfill, we can just add on cars. As she understood it, Seattle used to have 100 cars per day, and it is now down to 30-40 cars per day due to the City of Seattle's zero waste efforts and other King County efforts. She wanted to know if there would be a separate train or if cars would be added on to the existing train. Liu replied that the assumption is that we would use existing trains and would not be creating a new train to carry King County waste. Weiker added that the rail system has some flexibility built into it, and there is some operational flexibility.

Liu corrected previous comments. The ash percentage by volume would be 5% and about 20-20% by tonnage. And since King County produces a lot of waste, we might need to add a train and not just hook onto an existing one.

What are the key criteria to use when briefing partners?

- These briefings will be to County leadership (Department, Executive, Council), Cities, Advisory Committees, SCA, Open Houses, etc. The focus is on waste export by rail (WEBR) vs mass burn.
- 20+ criteria are too many to walk through in a briefing and make it difficult to make a decision.
- Rather than walk through all the criteria, the plan is to have a smaller comparison table with less than 10 key criteria to focus the discussion on.
- All 20+ criteria will still be in the report and can be discussed upon request.

Last week, we received feedback that it might be better to do a bullet list like other previous lists. We are still working out the best way to categorize and list things.

Trim did not believe it was a good idea to include jobs created because if we end up with mass burn, we will be required to have a certain amount of waste going to the facility or there will be penalties, like what happened in Honolulu, HI.

Therefore, it would hinder Re+ efforts and it would have to guarantee loads. The innovative jobs we are getting from Re+ Would not become doable and did not think that jobs should be used in this because it is very misleading. Walsh thanked Trim for her feedback and said that this is a good point for people to consider when they are trying to decide what is most important.

The full list of criteria

- Operating history
 - Proven performance
 - Safety record
 - Environmental compliance
 - Regulatory compliance
- Logistics
 - Operating life of facilities
 - Siting/design/permitting/construction
 - Considerations
 - Compatibility with current collective system
- Capacity
 - Waste type acceptance
 - Waste volume/tonnage flexibility
 - Residual waste management
- Environmental
 - Non-renewable energy demand
 - Water consumption
 - Acidification potential
 - Eutrophication potential
 - Global warming potential
 - Smog potential
 - Human health toxicity – cancer potential
- Economic
 - Capital costs
 - Operating costs
 - Cost per ton
 - Financial risk
- Social
 - Local traffic impacts
 - Local job creation
 - Other potential neighborhood impacts

Criteria with no major differences

- Operating history
 - Both are proven technologies, have good safety records, and must adhere to stringent environmental and regulatory compliance standards
- Logistics
 - Both have long operating lives (20+ years) and high compatibility with the current system
- Capacity

- Both have similar waste acceptance standards (no restrictions other than haz waste)

Trim commented that you can't say both are 20+ years when one is 100 years. Trim asked for more clarity and said the reality is that one is 20 years, and the other is 100 years. Walsh said this is all in the report and that if this was selected, it will be highlighted.

Criteria with some differences *bolded text is criteria*

- Logistics
 - Permitting, siting and construction considerations applies to mass burn only since a new facility must be built. WEBR can use existing railheads.
- Capacity
 - Mass burn requires additional residuals management for the ash that is generated. For tonnage flexibility, mass burn's capital cost creates a financial incentive to maximize throughout while WEBR can more easily ramp down.

These categories have some differences when comparing WEBR to Mass Burn. *bolded text is criteria*

Environmental Criteria *bolded text is criteria*

- Assuming electricity can't be sold to WA grid, but can be sold in other nearby markets
- Mass burn has positive impacts for **non-renewable energy demand, water consumption, acidification potential, and smog formation potential**
- WEBR has positive impacts for water consumption
- WEBR is neutral in cancer potential, while mass burn has a large negative impact

This analysis is for the medium tonnage scenario. These are Life Cycle Analysis impacts that include offsets for electricity being offset by energy generated at the landfill or a mass burn facility. This does not mean that mass burn facilities and landfills do not create local emissions. *

Atwood asked about the electricity – in terms of positive environmental impacts from offsets – and wondered about the assumptions because she heard there would be no increase in demand for energy. This would guarantee that newer energy would replace dirtier energy in the grid. This also assumes that the report includes the basic assumptions that are being used and if that assumption is not realistic, there is a lot of information on how the demand for energy is soaring. Putting new energy into the system for burning garbage is going to add to available energy, not replace it. Walsh said it mitigates the need to add more energy to avoid the need to burn. The consultants have said it is offsetting.

Atwood said that if energy demand in 2040 is higher, they will need to keep all the energy – dirty or clean. She did not hear if that is being considered in their report. Walsh responded that they would share the report very soon and these are good comments to add.

Mork asked if the greenhouse gas is being considered locally or through the whole cycle. Walsh said it is a global number.

Weiker asked for the planning link.

Economic criteria *bolded text is criteria*

- Mass burn has much higher **capital costs**
- Mass burn has much higher annual **operating costs**
- **Cost per ton:**

- Due to lower revenues of electricity sales (CETA), mass burn is higher in cost per ton than WEBR. However, WEBR costs increase more steeply over time.

This analysis is for the medium tonnage scenario.

Social criteria *bolded text is criteria*

- Jobs created
 - Mass burn creates many more **jobs** than WEBR
- Traffic impacts
 - Mass burn has higher **truck trips** due to hauling residuals to a railhead or to recycling facilities (for metal). WEBR will increase time at RR crossings by 2-15 min
- Air, odor, noise, etc.
 - These seem to be roughly the same assuming proper operations to meet regulatory requirements are in place

This analysis is for the medium tonnage scenario. A more in-depth ESJ analysis will be conducted once a location is decided.

The smaller list of criteria:

- Operating history
 - Environmental compliance
- Logistics
 - Siting/design/permitting/construction
 - Considerations
- Capacity
 - Waste volume/tonnage flexibility
 - Residual waste management
- Environmental
 - Non-renewable energy demand
 - Water consumption
 - Acidification potential
 - Eutrophication potential
 - Global warming potential
 - Smog potential
 - Human health toxicity – cancer potential
- Economic
 - Capital costs
 - Operating costs
 - Cost per ton
- Social
 - Local traffic impacts
 - Local job creation

We want feedback on what are the most critical things to highlight. We will be getting input from MSWAC too.

Trim clarified that she was saying it is inaccurate and was hoping that we delete the erasure of operating life.

Halverson said there is a difference in operating history and operating capacity. Trim clarified that the life of a landfill life is

120 years.

Atwood said that she really liked the summary slides but there was something big that was missing – we said that under mass burn, there are financial incentives to maximize tonnage. She understood how this is opposite to Re+ and the county would have to think about how they can justify both since they are financially and philosophically opposed. The incentives are problematic. Walsh replied that we are trying to figure out the best way to frame those and where to best have the conversation.

Walsh said we will send a survey out soon to get information from members.

Liu said she will try and get the survey out to people soon.

Trim asked what the operating life of facilities can be done on the cheat sheet. Liu said she can go back because it's supposed to be an at-glance chart. Trim said it needs to be fixed because she believes it is inaccurate.

Weiker asked for a picture or image of the rail system to understand the specifics. Liu responded that we have a request out to the consultants to include this image in the report.

Mixed Waste Processing Overview

John led this.

If we move ahead with Mixed Waste Processing (MWP), we will consider this to be in addition to the Re+ program and the other waste prevention programs we will have ongoing.

Mixed Waste Processing Approaches

- MWP uses a variety of automated equipment to sort garbage, pull resources from waste, and reduce tonnage of waste.
- MWP technologies include:
 - Water-based sorting
 - Dry Material Recovery Facility-style sorting (similar to a MRF)
 - “Garlic Press” separation
- Different approaches work better depending on a community’s waste stream.
- MWP can be a range of sizes:
 - A single conveyer that screens out cardboard
 - A machine or machines that sort some, not all, garbage at an existing transfer station
 - An entire new stand-alone facility

Mixed Waste Processing: Materials in and Materials out

- Typical garbage collection trucks will bring garbage to be processed – either to an existing station or to a new facility
- County-owned or privately-owned trucks will haul the diverted resources to be processed for recycling
- County-owned trucks will haul “residuals” to the landfill or the chosen final-disposal spot

Mixed Waste Processing: The numbers

- Now many MWP facilities exist, but we do know:
 - Capital costs: it depends
 - Up to \$500M for a new facility to handle all of King County’s waste

- Throughout: it depends
 - Can be sized for one station, or for entire waste stream
- Diversion: Over 50% capture of resources
- Facility appearance: should blend in

Mixed Waste Processing Examples

- MWP is not common, but there are several facilities on the west coast that SWD has been watching:
 - Juno facility in Toledo, OR
 - San Jose, CA
 - Santa Barbara, CA
 - Irwindale, CA
 - Eugene, OR recently announced a new project

Juno Mixed Waste Processing Project

- SWD shipped 737 tons MSW to Juno over 10 weeks
- MSW was shredded, baled and processed in Toledo, OR
- From 737 tons:
 - About 343 tons diverted (46%)
 - About 395 tons

San Jose, CA: GreenWaste materials recovery yard

- Opened in 2008, upgraded in 2018
- 3 separate MRF facilities:
 - Commingled recyclables
 - MSW
 - Yard waste
- MSW line handles 180,000 tons per year
- Claims recovery rate up to 75%

Santa Barbara: Resource Center

- Advanced MRF facility and anaerobic digester
- Opened in 2021 at the Tajiguas landfill
- 180,000 tons per year MRF capacity: MSW and commingled recyclables
- 80,000 tons-per-year (tpy) Anaerobic digester capacity
- Plastics, metals, and energy are revenue sources
- About \$135 M facility costs (not including land)
- Claims a diversion rate of 60%

Irwindale CA: Material Recovery Facility

- Advanced MRF facility
- Expected opening in late 2023
- MSW line handles 1,000,000 tpr
- 250,000 square feet
- MSW, organics and C&D waste

Anaergia: OREX Press (like garlic press)

- Pressed MSW with hydraulics to separate wet waste from dry waste

- Wet waste goes to anaerobic digestion
- Dry waste can be further sorted or disposed
- Currently challenged with technology and getting adequate organics feedstock quantities

Facility in Eugene is working with BHS to collaborate on building an advanced MRF to serve the city of Eugene and surrounding areas. BHS is interested in having an on the ground example of MWP and demonstrate that their system works.

Mixed Waste Processing: Next Steps

- Pursue other Re+ actions – (like EPR, food waste reduction) which will change the quantity and the composition of MSW
- Work with Resource Recycling Systems (RRS), the consultants, to help assess mixed waste processing options:
 - Different MWP technologies/approaches
 - Ownership and operation options
 - Flexibility to changing waste stream
 - Marketability of diverted materials
 - Scale of MWP facilities
- Work with Re+ Community Panel
- RRS (the consultant) is doing industry outreach now
- Draft report due November 2024
- SWD will share draft report with MSWAC & SWAC for comments
- Final report due December 2024
- RRS is available to support any next steps
 - Further research, facility siting, implementation

Lam wanted to know if there are technologies that different facilities use that handle plastics better. John replied that it depends on the mixed waste processing approach. For a MRF, the first goal is to get the wet material out and sorted. Facilities like Juno are experimenting with different forms of recovery. Once it goes through the high heat, most of it turns into “poly balls,” which are large accumulations of plastic. That is probably where a lot of the heat susceptible packing goes like clam shells. Ideally, we’d have the plastics out of the garbage, but this is a last resort effort to keep them out of landfill.

Lam clarified that John was saying that it doesn’t matter the type of plastics. John answered that it does depend on what kind of plastic and Juno is doing tests on detergent bottles because they couldn’t track what happens to that type of plastic in their system - they wanted to see what it’s transformed into. It is easier to investigate this at MRF facilities because we can see what’s happening. In a dry, MRF-style system, we can rely on the technologies that have been proven in existing and traditional MRF’s for clean material.

Louie tried to picture where this fits into our solid waste system and asked if all the plastics would go to this facility and then the landfill. John said it depends on how the overall MWP system is designed. If we were to build a new facility, various trucks would go straight to that facility and drop material into a sorting process. After that, the separated and residual material would go to whatever the LTD option is at the time. If it’s a MWP approach and we are adding it to an existing transfer station, the trucks would drop the material off and it would be sorted. You can be smart with this system by directing loads to the MWP line and other loads that have items that aren’t MWP suitable would go to the tipping floor. It all depends on how you design the system. This is something we are working on with the consultant.

Trim said at her own home, they don’t typically put items in the trash unless it is material that cannot be recycled or

composted. She wanted to know if single family line organics collection was the best route because what is left is material that is toxic or gross. Currently, there is lot of single use plastic. Hopefully with state bills, we would have that material diverted. There is also commercial, and they are trying to bale up everything to get commodity value. To her, this seems the most beneficial at the multi-family level and wanted to know where this fits into our overall planning. John replied this is part of why we brought in our consultants since they have experience with MWP around the country. We want the experience of existing jurisdictions and communities that have both started and maintained systems, as well as those that have started and abandoned them for whatever reason. In terms of bills, the scope of work for our consultant will be determined on the kind of legislation that will impact our waste stream and the value of a MWP system. Our recycling rate has been stalled for a long time and there's value in looking at different approaches. We have had a lot of attempts at legislation over the years and the rate is the same. We have not committed to a MWP future for King County, but this is a good time to look at it.

Member Comment

Louie said he went on the CHRLF tour and recommended the tour for anyone that has not been to the landfill. It was good to see everything in operation. He did not realize how many people worked there and how many trucks were dumping.

Louie said to Blum that there were people that asked good questions and didn't know if they would be good candidates to be a part of SWAC.

McLaughlin thanked Louie because we have SWAC vacancies.

Lam asked McLaughlin about the status of every-other-week garbage and wanted to know if it's still being considered. McLaughlin replied that it is because he believes it's a fundamental building block for our region. We, along with our city partners, want to see this become more of the norm and we've seen improvement with cities that have already implemented this. There is a lot of work to be done and our Re+ team has started to engage community members. We also have the benefit of an employee working with the unincorporated King County and the opportunities with them. It is our intention to pursue this in the UKC and with our city partners.

Lam asked if there was a timeline. McLaughlin said that this is a great example of a policy decision, and we will look for this to be represented in different materials like our comp plan. We have been focused on the LTD decision but there are other policy decisions that we also need to look into and seek consensus on.

Walsh believed that there are code changes that need to happen, and we are still internally discussing this. There are still discussions on when to do it.

Weiker noted that from the private partner perspective, every-other-week collection requires a lot of storage space at homes and businesses, and there is a higher potential for contamination. There are a lot of conversations that need to happen to look at implications. Campbell echoed Weiker's statements and there are regional examples of this every other week. There is a lot of communication that needs to happen with customers since this is not something that is common throughout the region.

Blazey added that they prefer weekly organics collection.

Trim said they favor every-other week garbage and organics pick up. We need to shift our system so people will put stuff where it needs to go and out of our waste stream. There are many cities in the states that do this and there will be challenges but the climate can't wait. Weiker said she agrees on getting items into the right bins, but the partnership and communication is key.

Atwood wondered about the MSWAC/SWAC meeting in December. Blum said we planned to combine the December meeting with MSWAC and will be sending out the updated calendar invite to this committee.

Trim asked if these meetings can be thrown on the calendar so we can plan for the whole year. If there are combined meetings, just put it on the calendar.

Adjourn

Meeting adjourned at 11:16 a.m.