

MSWAC Advisory Committee Meeting
 Sept. 13, 2024 - 11:15 a.m. to 1:15 p.m.
 Virtual Meeting (Zoom)

<u>MSWAC Members</u>		<u>King County Staff</u>
Troy Linnell	Algona	Nat Bennett, DNRP staff
Joan Nelson	Auburn	Ali Blum, SWD staff
Jon Gire	Bellevue	Jerome Cruz, Public Health Seattle/King County
Ella Williams	Bellevue	Theresa Curry Almuti, SWD staff
Tamie Deady	Black Diamond	Brian Halverson, SWD staff
Emily Warnock	Bothell	Wen Huang, SWD staff
Kim Muromoto	Clyde Hill	Christine Kim, SWD staff
Chris Searcy	Enumclaw	Patty Liu, SWD staff
Rebecca Kovar	Federal Way	Pat McLaughlin, SWD Director
Rob Van Orsow	Federal Way	Terra Rose, King County Council
Sam Tarvin	Issaquah	Chris Stubbs, SWD Deputy Director
Tony Donati	Kent	Isabelle Trujillo, SWD staff
Carly Joerger	Kirkland	John Walsh, SWD staff
Jenna McInnis	Kirkland	
Penny Sweet	Kirkland	<u>Guests</u>
Alana DeRogatis	Mercer Island	David Bayne, Hazardous Waste Management Program
Micah Bonkowski	Redmond	Zach Dugovich, Pacific Public Affairs
Aaron Moldver	Redmond	Katie Jerauld, Dept. of Ecology
Amy Tsai	Redmond	Carla Johnson, Republic Services
Meara Heubach	Renton	Jeanette Jurgensen, Bin There Consulting
Linda Knight	Renton	Han Kirkland, Waste Management
John MacGillivray	Renton	Brad Lovaas, WA Refuse and Recycling Association
Genevieve Rubinelli	Sammamish	Laura Moser, Waste Management
Sarah Bruemmer	Shoreline	Rick Vahl, Washington State Recycling Association
Colleen Minion	Tukwila	Hans Van Dusen, City of Seattle
		Diana Wadley, Dept. of Ecology

Call to Order and Introductions

Chair Sweet called the meeting to order at 11:20 a.m.

Meeting Minutes

Knight moved to approve the August minutes. Searcy seconded. Minutes passed unanimously.

Public Comment

Jerauld shared that there are two new grants that may be of interest for members. Ecology is working to improve air quality in Washington communities that are historically overburdened with health, social, and environmental inequities

and are highly impacted by air pollution. Ecology will be launching a \$10M grant program that will be open to organizations serving overburdened communities and Tribes participating in Ecology's initiative to improve air quality in overburdened communities. The grant application period will be open Aug. 29, 2024-Oct. 24, 2024. For information, visit [this website](#).

The second grant is [Ecology's Landfill Methane Emissions Reduction Grant](#) which will be used to help landfill owners and operators pay for expenses associated with complying with a new [Landfills-Methane-Emissions law](#). There will be \$9.6M in funding available and applications are open through Oct. 1. For future updates, please join the [email list](#).

Lastly, Ecology has a new resource page for the counties and cities in Washington that must adopt the Compost Procurement Ordinance (CPO) and submit an annual report on their compost procurement activities as required by the [Organics Management Laws](#). CPOs are a tool for cities, towns, and counties to look for opportunities to buy compost products and use it in their projects. In the future, this will hold the [reporting form](#) that can be utilized. If you want to help test the reporting form in autumn 2024, please contact Michelle.Andrews@ecy.wa.gov.

SWD Updates

McLaughlin provided the SWD update.

Construction Updates

SWD is undertaking work to replace crane equipment at the Algona Transfer Station and Houghton Transfer Station. The construction period at Algona has been extended to Oct. 29. The anticipated construction period at Houghton is from Oct. 28 through Dec. 20.

The delays are to ensure the safety of the Operators by implementing modifications to stiffen up the crane bridge. The modifications require additional procurement of steel material, concrete pouring, concrete curing time, welding, installation of steel, touch-up paint, and additional inspections. This extra work was not anticipated, but it is essential to maintain safe working conditions. We are taking our experience from the Algona project to apply to Houghton. We are also conducting a full site evaluation at Houghton to minimize the risk of additional schedule changes.

We are actively working with commercial haulers on how we can minimize negative impacts and ensure they have the most up-to-date schedule information. We convened a meeting between haulers and SWD to understand their concerns and we are actively exploring viable options to help minimize disruptions. Additionally, significant outreach is taking place to residents and businesses in both areas, including signage in advance of the closures to alert repeat customers to potential longer waits. Scale operators have flyers to identify alternative transfer station locations.

McInnis wanted to know if there were any updates on construction alternatives, like keeping Factoria open longer, due to concerns about closing Houghton. McLaughlin responded that we are thankful that the haulers have been able to adjust, and we recognize that Houghton is different due to its proximity to alternative situations. We are looking at different alternatives like hours open and who has access to the stations at what time. We are asking the haulers to see what their impacts are and will update everyone as we know more. If we modify hours, there is a lengthy process involved and we would have to decide quickly.

Nelson said that she had a meeting with Waste Management (WM) and things are not going well. She asked King County look into something else because WM is not able to accomplish everything they normally do and there has been a lot of issues. She is concerned if Houghton and Renton are in worse situations and is wanting to know if we can open to commercial haulers during the weekday and residential on the weekends. McLaughlin said we will be sure to circle back on the impacts of the haulers to see if there is anything we can do to help.

Bonkowski encouraged working with all the cities impacted and not just the host cities. In terms of lead time, if WM experiences issues getting to different stations, there's provisions in their contracts that allow them to ask for certain things. This construction seems to have been sprung on the cities, not leaving enough time to meet the haulers asks.

Opportunities for LTD Engagement

SWD held its 4th Long Term Disposal Subgroup Meeting on Aug. 26. The purpose of the meeting was to discuss comments and concerns about the long-term disposal study and review information about mass burn and waste export by rail. As a reminder, meeting materials and recordings are available on the LTD Extranet. We appreciate the involvement of everyone.

SWD sent invites for an Open House to provide ILA partners and Advisory Committee members an opportunity to learn what has been accomplished through the LTD study to date, ask questions and provide feedback, and be aware of upcoming opportunities to learn more and provide input.

There will be two virtual Open House options, that cover the same content.

- **Open House option #1**
Monday, Sept. 30 from 5:30-7:30 p.m.
- **Open House option #2**
Wednesday, Oct. 9 from 9-11 a.m.

These Open Houses are an early opportunity for ILA partners to be involved in this work. A final decision on the preferred disposal method will be made after the issuance of a final Environmental Impact Statement, as part of the SEPA process, which is currently scheduled for 2026.

Advisory Committee members, city staff, and elected officials have been invited to attend. The Sound Cities Association (SCA) also shared the invite with their membership. Additionally, SWD will be providing an LTD update at the SCA's Public Issue Committee on December 11.

2025 Rate Update

SWD prepared a final version of the fixed annual charge allocation table that incorporates the feedback received from cities and haulers in July and August and sent it to cities for their review. By the third week of September, we will send out a formal notification about the rate increases to cities and commercial haulers.

Airborne Arsenic Update

As part of ongoing efforts to understand potential safety risks and protect employees from workplace hazards, SWD hired an industrial hygiene firm to collect and analyze data from air quality monitors worn by employees during their shifts on August 13-15, and August 19 and 21.

The monitoring was a follow-up to the on-site employee air quality testing that took place last December. This second round of testing was to identify potential areas of risk, including evaluation of seasonal changes to risk levels. Preliminary results show no measurable arsenic, except for samples collected during three employee shifts that contained arsenic at levels far below permissible exposure limits.

For context, the lowest reporting limit for arsenic last winter was about 0.51% of the permissible exposure limit. Anything less than 0.51% was not detectable. This summer, the lowest reporting limit was about 0.39% of the permissible exposure limit, which means in this later round of testing the laboratory was able to measure even lower levels of arsenic.

CHRL Community Meeting and Public Landfill Tour this Fall

As part of our commitment to ongoing communication with households living near CHRL, we are hosting an in-person meeting for the public to learn and ask questions about what's going on at CHRL, including current and planned construction projects, environmental monitoring activities, and operational activities. Meeting details:

- Wednesday, Sept. 18, 6:30-8:00 p.m. at Maywood Middle School

SWD is also hosting a Public Tour of the Landfill so that the public can see our efforts to manage waste and protect the environment in action. Tour details:

- Saturday, Oct. 5, 9-10:30 a.m. at Cedar Hills Regional Landfill

We shared this information via direct mailing of 4,000 postcards, email notifications, and notices on our website.

Organics Pilot for Businesses

The Organics Management Law's 2024 requirements are in effect. However, few businesses are motivated to change their organics management practices from the status quo without enforcement or other incentives in place.

King County is piloting an effort to incentivize businesses to take one, self-selected action that reduces organic waste at their site. Additionally, they will self-select easily recorded metric(s) to measure the impact of their action. This data, as well as feedback provided after six weeks of best-effort implementation, will help inform future King County business outreach related to the OML. For their participation, businesses will be compensated \$500.

Transfer Station Signage Pilot

Next month, SWD will unveil new signage at the Bow Lake Transfer Station. The new signage is a massive improvement that will improve safety and customer wayfinding. It also improves accessibility through visual communication and translations. This is a pilot effort and the first step in creating a more unified customer experience at all our transfer stations.

The designs were based on insight from staff at the Bow Lake facilities, who have a deep understanding of our customer base, issues, and what's needed to solve them. After getting feedback on the pilot period at Bow Lake, we will make tweaks and roll out the new signage in other transfer stations.

Glass Recycling Roundtable

On Sept. 11, King County and Seattle Public Utilities convened a roundtable to identify short-term solutions to ensure glass recycling in the region continues. There were many MSWAC members on the call; thank you for your collaboration, idea sharing, and commitment to this work.

The meeting focused on hearing updates from GPI, SMI, King County, SPU, and commercial haulers and identifying short-term actions that can have a positive impact within the next 6 months. The four most pressing priority actions identified were creating a contingency plan, developing public messaging, end market development, and supporting finding adequate stockpile locations. There will be a second meeting convened, likely the last week of September.

South County Recycling and Transfer Station Update

In July, a contractor discovered utilities running deep under the existing culvert on West Valley Highway. That discovery led to the postponement of the new culvert installation scheduled for late July. The team had been working with the utilities to get new lines in place so the old could be demolished at the new time of the culvert construction, late September, right up against the in-water-work window, or fish window.

We were notified that a new utility cable 30 feet under the surface was damaged. We will not be able to redo this work and install the culvert before the end of the permitted fish window. The culvert installation has been postponed to next year. We will work to repair the cables through the fall.

We are also continuing to work with the City of Algona on how to minimize traffic disruptions on West Valley Highway through October. We have turned on the automated function of the traffic management system to shorten the wait time based on the actual traffic present.

Northeast Recycling and Transfer Station (NERTS) Update

We are currently scheduled to issue the Final Environmental Impact Statement in Q4 this year. To give you an idea of what that looks like, the project team went through all the 1,800 emails, comment cards, letters etc. and broke them out into categories based on the environmental elements in the Draft Environmental Impact Statement document. Technical experts for each environmental element have taken the comments and are responding, proposing additional analysis as needed, and updating the FEIS to include responses to the comments.

Request to Update the Disaster Debris Site Web Map

Following the August MSWAC meeting, we sent a request for cities to review the disaster debris web map to confirm whether the current sites in your jurisdictions are accurate. We also asked for assistance in identifying additional sites where debris may be temporarily stored after a disaster.

Given the time and considerations involved in identifying and developing temporary debris sites, it is important that we perform as much work as possible in advance. Note that we aren't asking you to identify firm locations, just preliminary. But it is important to consider where you'd want debris to go if it can't be transported out of your jurisdiction. If you haven't already, please look at the web map and reach out to Ali with any questions or any sites you have reviewed or identified. Thank you for your help with his important work.

Moldver asked for a tonnage update. McLaughlin said the tonnage now is not significantly different from the same time last year and added that information to the chat. In the chat, McLaughlin added that tonnage in July is up 1% at 500,363 tons compared to July 2023. Transactions are flat for this same period.

Van Orsow asked for more information about the compost service incentive. Blum added it to the chat.

SWAC Update

No update.

Long-Term Disposal Decision Study

Liu and Walsh led this update.

Mass Burn Process

- There have been over 2,000 mass burn facilities throughout the world – mainly in Asia. Most in the U.S. are on the East Coast due to high tonnage costs.
 - Few on the West Coast – Spokane and Long Beach, CA (closed earlier this year)
- Can produce 700 kWh/ton of solid waste
- No pre-processing required
- Many proven facilities at size that can meet King County's processing capacity
- Public has emission concerns even though environmental standards are very stringent. As shown, more than half of the facility is designed for pollution control and energy recovery.
- There's a high energy recovery potential
 - Steam, hot water, electricity, etc.

- Removes metals for recycling
- Low residue (ash)
- Historically, communities have shown concern over this and permitting and siting can take up to 10 years

Waste Export by Rail (WEBR) Process

- A WEBR option would export compacted mixed solid waste (MSW) in intermodal containers via railroad transportation to an out-of-county landfill.
- WEBR from Washington municipalities is well-established, having been utilized successfully since the 1990's (City of Seattle, Snohomish County, Kitsap County, Thurston County, Skagit County).
- A specific location for the intermodal yard for the waste export option (as well as the other study disposal options) is not identified, rather a general area for assessing transport distances is being used.
- Freight rail and trucking complement each other for intermodal shipment, and freight rail's role as a long-distance partner has enabled trucks to leverage their speed and agility for short hauls

Updated Mass Burn and WEBR Cost Assumptions

- Costs associated with emergency/catastrophic failure addressed
- WEBR Transport and disposal costs previously based on most recent contract bids. Update based on latest legacy contract rates for higher tonnage contracts.
 - \$60/ton (2023\$) for Medium and High Tonnage based on Snohomish at 700k+ TPY
 - \$65/ton (2023\$) for Low Tonnage based on Kitsap and Thurston counties at 220,000 and 206,000 TPY, respectively.
- WEBR additional equipment costs included, labor and transport costs from MWP facility to IMF assumed to be similar between all options.
- Mass Burn property acquisition at \$43.6 million for 25 acres.
- Mass Burn Electricity Revenue reduced to \$0.02/kWhr (2023\$) based on current rate for Spokane WTE facility discounted for potential interconnect costs and transmission costs for interstate sales.
- Mass Burn Ash WEBR Transport and Disposal rate of \$97/ton (2023\$) assumed based on input from Spokane WTE operator and existing WEBR contracts
 - Higher than what was expected
- Mass Burn Metals Recycling Rate reduced per average rate provided by Spokane WTE operator (\$40/ton).
- Cost projections performed for 2040 through 2060 assuming 30-year bond financing, 4% interest, 3.5% inflation rate.

Updated Mass Burn and WEBR Cost Comparison

- With these updates, mass burn is more expensive than WEBR. Mass burn has a higher cost upfront but WEBR has higher costs as things progress.

Economic Subcriteria – Medium Tonnage (2040\$):

	WEBR	Mass Burn
Annualized Capital Costs	\$337,855	\$86,707,211
Annual Operating Costs	\$71,817,560	\$53,863,170
Annual Disposal Costs (Residuals)	\$0	\$23,221,011
Annual Electricity & Metal Recycling Revenue	\$0	(\$9,730,372)
Total Annual Costs^{1, 2}	\$72,155,415	\$154,061,020

¹ WEBR = Equipment + Rail Transport + Disposal Costs.

² Mass Burn = Annualized Capital + Operating Costs + Disposal Costs - Revenue.

Cost Per Ton Comparison Table – Medium Tonnage^{1:}

	WEBR (Med. Tonnage)	Mass Burn (Med. Tonnage)
Cost per Ton (2040\$)	\$108.19/ton	\$230.99/ton
Cost per Ton (2050\$)	\$152.52/ton	\$247.08/ton
Cost per Ton (2060\$)	\$215.06/ton	\$272.16/ton

¹ Mass Burn has flatter growth rate as the majority of costs are CAPEX which remain constant over 30-year debt service term. Other costs increase with assumed inflation rate.

Mass Burn vs WEBR Costs



Environmental Criteria Evaluation Results – Mid-Range Tonnage

- The electricity produced from mass burn can't be used in the state of Washington in most cases.

Environmental Factor	Mass Burn	WEBR
Resource Conservation	Creates heat that can be used to generate electricity (to be used out of state)	Landfill gas is converted to electricity or renewable natural gas.
Compatibility with Waste Prevention and Recycling	Metals removed during pre-processing for recycling.	No pre-processing for removal of metals at the landfill.

^[1] This is only a benefit if markets to sell the electricity exist.

Life Cycle Impacts and Offsets

- Process
 - Direct impacts of operating the facility, such as water use, fuel combusted onsite, air emissions, wastewater discharges, surface water discharges
 - Upstream impacts of external inputs needed to operate the facility:
 - Grid electricity production (including associated upstream impacts of fossil fuels used to generate electricity)
 - Fossil fuels extraction, transport, and refining
 - Extraction and production of other material inputs and energy sources
- Transport
 - Direct impacts of fossil fuel combustion
 - Upstream impacts of grid electricity production for EV's (including associated upstream impacts of fossil fuels used to generate electricity)
 - Extraction and production of other transportation inputs and energy source
- Offsets

- Assumes that electricity and RNG sold by the facility will displace other energy generators (likely the highest cost generators). Both facilities sell energy.
 - Therefore, we offset (count as benefits) impacts avoided by reducing this product:
 - Grid electricity production including upstream impacts (e.g., extraction and refining) of fossil fuels used to generate electricity
 - Conventional natural gas production including upstream impacts (extraction and refining)
- That is, other generators will reduce energy production by the amount WEBR/Mass Burn sell.
- Mass Burn generates more energy than it consumes. Mass Burn reduces net fossil fuel demand while WEBR increases it.
- Total net impact = Process + transport – offsets

Energy Grid Mix

- Energy Grid Assumptions:
 - The U.S. Energy Information Administration (EIA) is the only source that provides data projected out to the dates we needed.
 - The EIA's most local projections are for the Pacific region, which includes WA, OR, CA, AK, and HI. Projections excluding AK and HI were not available.
 - To provide some localization, because WA has a high percentage of hydropower, we used the renewable vs. non-renewable split projected for the EIA Pacific region and re-allocated the renewable split following the percentages described in the Study Environmental Impact Factors and Assumptions (Study Memo 5).
 - The final percentages used in modeling are shown in the table on this slide.

Mass Burn generates more energy per ton of waste than WEBR

- In WEBR, only putrescibles (e.g., food, yard waste, wood, and paper) can decompose into methane, and some of the methane escapes before landfill capping.
- In Mass Burn, both plastics and putrescibles are converted into energy products, so more energy is generated from the same ton of waste.
- To provide a direct comparison of the two, the energy ratios on the slide shown assume all captured landfill gas is used to generate electricity and none is refined to RNG

Mass Burn vs. WEBR

- Mass Burn produces over 10 times the amount of energy as WEBR for a given ton of waste
 - More energy produced = Higher offset electricity amounts = More fossil fuel use avoided
- Fossil fuel impacts include releasing CO₂ (GHGs), NO_x and VOCs (smog), SO_x (acidification)
 - Impacts include upstream production of fossil fuels (extraction, transportation, refinement), in addition to direct impacts of combustion for energy
- Much higher energy offset amounts in Mass Burn = Better scores on most environmental criteria

Impacts: non-renewable (fossil fuel & nuclear energy) demand (energy production)

- Description: Measures fossil fuel (coal, natural gas, and oil) and nuclear energy from the point of extraction
- Comparison: Counting both energy inputs to process and transport and offsets from energy generated, WEBR increases nonrenewable energy demand while Mass Burn reduces it.
- Primary sources:
 - WEBR: direct use of fossil fuels and electricity in landfill operations and transport (minimal offsets from electricity sold to grid)
 - Mass Burn: use of fossil fuels and electricity during process; offsets from energy sold to the grid

Impacts: water consumption

- Description: Freshwater withdrawals which are evaporated, incorporated into products and waste, transferred to different watersheds, or disposed into the sea after usage.
- Comparison: Both WEBR and Mass Burn reduce water consumption. Mass Burn reduced consumption by nearly 36 times more water than WEBR for the medium tonnage scenario.
- Primary sources: Reduces evaporation from hydropower reservoirs by offsetting grid electricity. Mass Burn generates more energy than WEBR, and all Mass Burn energy is sent to the grid, while half of WEBR LFG is sent to the grid and half is refined into RNG. Also includes water usage at landfill and mass burn facilities.

Liu asked MSWAC to consider two things. The first being if the Clean Energy Transportation Act (CETA) were repealed, whether building a mass burn facility would lead to the deconstruction of dams (and thus, less evaporation) and the replacement of hydropower with energy derived from burning MSW. The second question being if mass burn energy under CETA can't be used in state, we wouldn't necessarily see better water consumption outcomes in our region.

Impacts: acidification potential (air quality)

- Description: Potential environmental damage (such as acid rain) caused by the release of acid-forming compounds into the atmosphere, primarily due to the burning of fossil fuels.
- Comparison: WEBR increases acidification and Mass Burn reduces it. WEBR creates more than 7 times more acidification potential than the amount that Mass Burn reduces for the medium tonnage scenario.
- Primary sources: burning of fossil fuels and biomass.
 - WEBR: fossil fuels for landfill equipment (on-road diesel)
 - Mass Burn: process combustion (includes emissions scrubbers) and electricity inputs
 - Offsets: fossil fuels for electricity generation
- Notes:
 - Rail transport has a relatively small contribution to acidification because locomotives use 70% low-sulfur diesel and 30% biodiesel.
 - Cedar Hills uses R99 diesel (low sulfur). WEBR acidification potential would be lower if the County required use of low-sulfur diesel.

Impacts: eutrophication potential (water quality)

- Description: Potential environmental damage (such as algae blooms) caused when bodies of water or soil become overly enriched with nutrients like nitrogen and phosphorous.
- Comparison: Both WEBR and Mass Burn increase eutrophication potential, but WEBR creates 3 times more eutrophication potential than Mass Burn for the medium tonnage scenario.
- Primary sources:
 - WEBR: landfill leachate (collected and sent to water treatment plant)
 - Mass Burn: production of lime used as a process input
- Note: While burning fossil fuels contributes to eutrophication, for these scenarios the impacts of leachate and lime production are far higher.

Impacts: global warming potential (climate change)

- Description: Potential increase in the Earth's temperature due to greenhouse gases (GHGs) from human activities. The main greenhouse gas is carbon dioxide (CO₂), which is released primarily through the burning of fossil fuels. Another significant greenhouse gas is methane, which comes from the breakdown of organic materials in environments without oxygen, such as wetlands or landfills.
- Comparison: Both WEBR and Mass Burn increase global warming potential, but WEBR creates more than 3 times more global warming potential than Mass Burn for the medium tonnage scenario.
- Primary sources:

- WEBR Process: The portion of methane not captured as LFG in collection systems and fossil fuels used in landfill equipment and transport.
- Mass Burn: combustion of plastics in the facility.
- Avoided electricity offsets: reduced use of fossil fuels to generate electricity (including impacts of production)
- Avoided natural gas offsets: avoided production impacts by replacing conventional natural gas with RNG
- Note: Following IPCC standards, CO₂ associated with burning organics is not counted toward global warming potential, and organics that do not decompose in the landfill are counted as a carbon sink

Impacts: Smog formation potential (air quality)

- Description: The process by which certain chemicals (primarily NO_x and VOCs) in the atmosphere react with sunlight and heat to produce ground-level ozone (O₃), a major component of smog.
- Comparison: WEBR increases smog formation potential while Mass Burn reduces it. WEBR creates nearly 2 times more smog formation potential than the amount that Mass Burn reduces for the medium tonnage scenario.
- Primary sources: combustion of fuels like gasoline, diesel, and coal under certain conditions
 - WEBR: diesel used in rail transport
 - Mass Burn: offsets that reduce fossil fuel use to generated grid energy

Impacts: cancer potential (human health)

- Description: The potential dangers to people's health associated with cancer from the release of toxic chemicals into the environment. Cancer potential (CTUh) represent impacts for the total human population per unit mass of chemical emitted.
- Comparison: Mass Burn has the potential to cause 1.4 million times more cases of cancer than WEBR for the medium tonnage scenario because more toxic chemicals associated with cancer are released.
- Primary sources: Combustion of plastics (such as in Mass Burn).

Nest Steps:

- WEBR and Mass Burn Social Impacts, Operating History, Capacity, and logistics criteria
- Decision Timeline
- Open Houses
 - Sept. 30, 5:30-7:30
 - Oct. 9, 9-11

Knight wanted to know when the decision-making timeline will be completed. This timeline may remove some of the potential anxiety created around these conversations. Liu answered that Knight and Sweet will see the timeline earlier than everyone else as Chair/Co-chair and they will receive a draft, take the feedback, clean it up and then release it to MSWAC. Liu will check with Blum and Ockerlander to see what the next step is in the government relations process. Sweet and Knight agreed that sooner is better.

Blum said we have a near-final draft of the engagement timeline prepared and will share it for feedback with the chairs next week and with the full group soon after.

Sweet wanted to know what the cost is of building the mass burn facilities vs. building the transfer stations for WEBR. Tsai echoed this comment and added potentially the cost of decommissioning at its end of life. Walsh said we can dig up the specific numbers for the capital costs for mass burn. For the medium tonnage scenario, the total capital cost is \$1.18 billion for mass burn. For WEBR, we are planning to use existing facilities. As for decommissioning costs, this was not included in the analysis as mass burn facilities can operate much longer than the study period (thought 2060) with proper maintenance and upgrades (and these are included in the cost analysis), so decommissioning costs do not apply for this analysis.

Gire thanked the team for the effort and commented that there is confusion around the offsets, and it seems like there is a comparison of apples to oranges with the environmental comparisons. He also said that the subgroup has seen these numbers and thinks it important to have more clarification that both options have WEBR. Gire asked if there are going to be other efforts with the subgroup and if any feedback from the subgroup will be asked on the final report. Liu said that future utilization of the subgroup is possible if wanted.

Searcy questioned the value of the water consumption effort and found it difficult to understand. The reason there is more prevalent mass burn on the East Coast is that the landfill costs there are much higher than on the West Coast (there is less space for landfills on the East Coast), so these options are most competitive. For some places, like Florida, it is difficult and expensive to dig a landfill given the high groundwater levels that make permitting a landfill very difficult. He believes it is worth looking at the options and the economics of it to see how it impacts renewable energy to produce the electricity for those data centers.

Bonkowski added that it's impossible to site a landfill in Florida due to the water table.

Sweet said that overall, we need validation for these offsets.

Bonkowski followed up saying that as he understands it, the next step in the process is to do an Environmental Impact Statement (EIS). He wanted to know if this report will be the dataset used to make the comparison in the EIS or if more research will be done to populate the EIS report. Liu answered that she does not know the answer to this question.

Knight commented that if any of the subgroup committee members can share their thoughts, she'd be interested in hearing it. She asked about the options that have more barriers and as seen on updates with the transfer stations, they can be fraught with things like unexpected costs.

Sweet stated that from a political standpoint, she doesn't believe that people will know where they want to go until they get validation of the data. She expects there to be a lot of engagement with Ecology and similar agencies.

Sweet that there are a lot of "what ifs" with the CETA options. There are big conversations that need to happen soon to begin developing a political stance because there will probably be more than one. Liu responded that we can only validate and present information to a certain extent, like if CETA will be repealed or what will happen in 2040. It's a hard discussion and there is not an answer. McLaughlin said that we are not yet satisfied with the level of clarity given by Tetra Tech. We are getting more clarity with every conversation, but we still want more. We are going to see some of the answers to the questions with this next election cycle, but it still may not sway us environmentally.

Bonkowski said that one of the other questions that we had not addressed was the feasibility of siting in King County and the local impacts, as well as introducing more pollution and the requirements for that. He wanted to know what the political, social and economic impacts are of siting the facility. Walsh responded that the siting information will be addressed at the October MSWAC meeting but throughout the process, everyone has pointed out that mass burn requires a facility and WEBR does not. For the validity, the models are widely accepted and used across different agencies and jurisdictions. We have been working on how we turn these numbers into something people can understand and how we make it easier to better grasp what things mean. When we have these conversations, we want to know what the key pieces are for us to understand. Some of the criteria are more important than others.

Tsai thanked Liu for the summary and agreed with others that they are still not hearing clarity on some major cost and environmental drivers that were of original concern.

McInnis echoed Bonkowski's comments about the reality of siting a facility and believed it should be included in the study due to its difficulty.

Searcy commented that another one of the impacts he struggles with is the cancer potential. It is hard to know what this number is really telling us.

Moldver stated that the subgroup also talked about a third option - a slow rollout of WEBR. This option would help the landfill last longer and allow time for new innovative technology to arise. The subgroup did not talk about cost impacts, but it could buy time. This is something they talked about when they found out that mass burn still involved WEBR.

Walsh said we are often running two systems at the same time and want to confirm the assumptions.

Deady added that siting was a big topic for the subgroup. For her, there's a health aspect too. When we go to look at where we will locate the facility, there are big decisions to make. It is going to be hard for the public to know that mass burn has toxic impacts and wants there to be more conversation in the subgroup about mass burn with WEBR. Walsh said that the WEBR part is only for the transportation of ash because it needs to be shipped out.

Van Orsow wanted to know how committee members felt about the consultant's response. It seems that they just flipped the numbers and that will be what drives a lot of the political decisions. It would be good if we can look at regional coordination and extend the life of the landfill.

Gire asked for clarification on the ash disposal if around 25-30% of the weight would go into the facility and leave by WEBR. Walsh replied he would check on the numbers. Gire added that this is why it is good to highlight that WEBR is part of mass burn. Gire added that another approach could be starting with the landfill and then seeing how things like CETA, and the Organics Management Law develop. There are a lot of things they have not discussed.

Liu said we also want to keep an eye on developments with gasification, pyrolysis, and refuse-derived fuel. These are the options we've eliminated this round for consideration.

Heubach said that Pierce County also anticipates closing their landfill around 2029-2030.

Knight echoed Gire's comments that there are a lot of things that we have not discussed and does not feel one way or the other.

Bonkowski commented that flexibility between the two options is a good part of the discussion.

Unincorporated King County Service Levels

Kim led this.

At the last meeting, we talked about these Minimum Service Level Work Overview for unincorporated areas of King County:

- Planning & Installation
 - Vashon Island Requirements
 - Food Waste Ban
- Operation logistics
 - Service disruption
 - Cart distribution
- End-user services and customer success

- Wildlife education & outreach
- Contact list update

Changes to enhance Vashon Island’s composting services:

- Receive same minimum level services as other unincorporated areas of King County
 - Vashon Island currently lacks a facility to properly process organics. King County is collaborating with Zero Waste Vashon to study and identify a third-party operator to expand compost services at the Vashon Transfer Station.
 - With this work, exemption language for Vashon Island in Title 10 will be removed.
- Support the Re+ goal of reaching zero waste by 2030

Food waste ban

- Ban food waste from King County’s SWD system, implementing the King County SCAP commitment to no food waste in landfill by 2030
- Model ordinances by Ecology: “Require businesses and residents to subscribe to food and yard waste collection service, if available, and ban organic materials from trash collection bins.”
 - Must be published by Jan. 1, 2025
- Collection consistency across King County with minimal efforts from each local jurisdiction
- Explore different service frequencies
- Support the Re+ goal of reaching zero waste by 2030

Service disruptions

- Increasing inclement weather events have resulted in repeated missed collections, with some areas experiencing over four consecutive weeks of missed collection
- Expectations through Title 10: Establish clear and well-defined expectations with the haulers on responding to missed collection due to inclement weather
 - Enhanced coordination and communication with hauler services and road closures for each jurisdiction to adapt
 - Clear language on providing credits to affected residents

Cart distribution: detailed requirements around container replacement and a reasonable delivery schedule

- Avoid fees to our residents prior to receiving containers, especially around inventory challenges
- Increased communication to better serve our residents

Contact list update – updated annually and maintained regularly

- Two weeks’ notification to the county of any changes
- Updated contacts list annually with one source of truth for King County service areas

Wildlife Cart – Education & Outreach: promoting more awareness of wildlife carts in unincorporated areas of King County to reduce conflict with wildlife

- Reduce wildlife encounter concerns through education
- Ensure driver safety by preventing potential hazards
- Maintain cleaner, safe communities while promoting responsible waste management

We are currently looking at 6 UKC Minimum Service Level Standard Work changes:

- Wildlife cart and education & outreach: update language on promoting awareness to reduce conflict with wildlife when preparing materials.
- Cart distribution: update language for replacement cart delivery time

- Service disruption: Language outlining a process to address missed collection due to inclement weather. There is some language in UKC tariffs, but it is not clear.
- Contact List Update: yearly updated organizational contacts list kept updated and maintained regularly.
- Vashon Island Requirements: Remove the exemption from the unincorporated service area requirements to start providing organics service (HB-2301). We want them to be part of HB 2301 and receive services.
- Food waste ban: considering adding a “food waste ban” language to help achieve Re+ goals

Knight thanked Kim for the presentation and believed that these are great initiatives, especially for cities that border unincorporated areas. This is due to frequent calls that nearby cities receive from residents in unincorporated King County about issues with their haulers.

Bonkowski said that they receive questions from Redmond Ridge in the UTC about wildlife containers.

Donati echoed Knight’s comments and is looking forward to the food waste ban.

If you have any questions, please reach out to Kim at chkim@kingcounty.gov.

2025 MSWAC Work Plan Preview

Blum led this.

Blum shared the draft 2025 MSWAC Work Plan sent via email on 9/12/24.

Every month, there is a placeholder for the Comp Plan or for the LTD update. At the end of the document, there is a more detailed explanation of each item.

Searcy said that if the division has produced a work plan like this before, he has not acknowledged it or seen it.

Knight echoed these comments and liked the level of detail. She said that we have new members every year and it would be great if each city can receive a copy of the [bylaws](#) for new members.

Meeting Time Survey Results Review

Blum provided these results.

Blum shared that the time that worked best for people is the second Wednesday of the month from 10 a.m. to noon. As part of our bylaws, we will bring the new schedule to the October meeting and once that is approved, everyone will receive calendar holds.

Member Comment

Heubach shared that there are [two events](#) being held by the local SWANA chapter that are coming up. Next week, there is a tour in Skagit County of the food processing facility and the composters. In October, there is an all-day tour of Republic’s landfill.

Knight reintroduced John MacGillivray as an employee of City of Renton, as he formerly retired from the City of Kirkland and served on MSWAC.

Gire said that the USDA announced that they will be having another grant round of Solid Waste Infrastructure for Recycling (SWIFR).

Adjourn

Meeting adjourned at 1:02 p.m.