

MSWAC Advisory Committee Meeting

June 14, 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	Clynn Wilkinson, SWD staff
Joan Nelson	Auburn	Mary O’Hara, SWD staff
Tami Deady	Black Diamond	Laila McClinton, SWD staff
Jenne Alderks	Bothell	Sylvaine Bucher, SWD staff
Ella Williams	Bellevue	Patty Lui, SWD staff
Jon Gire	Bellevue	Nina Olivier, SWD staff
Kim Muromoto	Clyde Hill	John Walsh, SWD staff
Shellie Bates	Covington	Christine Kim, SWD staff
Rebecca Kovar	Federal Way	Amy Ockerlander, SWD staff
Rob Van Orsow	Federal Way	Christopher Stubbs, SWD Deputy Director
Sam Tarvin	Issaquah	Hilary Leonard, SWD staff
Tony Donati	Kent	
Jenna McInnis	Kirkland	Katie Jones, SWD staff
Amy Shaw	Maple Valley	
Jeff Brauns	Newcastle	
Micah Bonkowski	Redmond	<u>Guests</u>
Amy Tsai	Redmond	Zach Dugovich
Linda Knight, Vice Chair	Renton	Zainab Nejati
Sarah Bruemmer	Shoreline	Kaylie Wallin, Republic Services
Genevieve Rubinelli	Sammamish	Laura Moser, Waste Management
Mason Giem	SeaTac	
Colleen Minion	Tukwila	

Call to Order and Introductions

Vice Chair Knight called the meeting to order at 11:15 a.m.

Meeting Minutes

The committee decided to delay approving the May minutes until the July meeting.

Public Comment

Ockerlander shared an update in the chat from Ecology.

In May 2024 the Department of Ecology adopted [a new rule concerning landfill methane emissions](#). The rule establishes new requirements for municipal solid waste landfills.

Ecology is seeking public comment on their landfill methane emissions reduction grants. [Online comment on the proposed grant guidelines](#) is open through June 16th. The grant application period will open in August 2024 and will be announced via email list.

SWD Updates

Stubbs provided the SWD update.

SWAC Update

Puget Sound Clear Air Agency (PSCAA)

In early June, we completed air quality modeling and reporting in response to a November 2023 Administrative Order from the Puget Sound Clean Air Agency. Two reports were submitted: The Toxic Air Pollutants Modeling Report & The Best Available Control Technology Analysis Report. The administrative order required the division to determine the emissions rates of arsenic and inorganic arsenic compounds, and arsine and model the dispersion to determine if the Acceptable Source Impact level (ASIL) is exceeded at or beyond the property fence line.

While there is currently no readily available testing method specific to arsine, the available methods detect all gaseous forms of arsenic. SWD used a conservative methodology, which assumed all measured gaseous arsenic is arsine, which may have overestimated the amount of arsine emitted from the lagoons.

The ASILs were developed to help predict acceptable source impact levels and the effect ongoing, long-term exposure to air pollutants would have on people residing next to an operation regulated for emissions such as arsenic. ASILs do not predict potential exposure for workers. You may remember that potential exposure to airborne arsenic was measured last December from 3 weeks of air quality monitoring at SWD facilities. Results concluded that employees were not exposed to concerning levels of airborne arsenic during their routine daily work tasks.

The BACT report that SWD submitted outlines our proposed control methods to ensure compliance with ASILs for arsenic and provides an implementation schedule for those control methods. Our modeling of emissions from landfill sources other than leachate lagoons are well below the ASILs, so the BACT report focused on the leachate lagoons only.

In line with our commitment to maintaining a safe workplace, we are continuing to work with PSCAA, including requesting an order be issued with the BACT determination and associated compliance schedule for implementation. We're also working with other regulators as needed to ensure we uphold our commitment to protecting human health and the environment.

Fixed Annual Charge (FAC)

Notice went out to the haulers and cities at the end of May advising of the release of the Draft allocation table for the 2025 FAC. We held office hours for cities and haulers on June 11th and June 13th to have questions answered and provide an opportunity for feedback to the county. Feedback is due to Lindy Honaker by June 28th.

An updated draft FAC will be released on July 3rd, incorporating feedback received in June, with an additional opportunity to provide feedback until July 31st. The final draft will be released on August 2nd, with the expectation of adoption by the county council in September 2024.

2025 Rate Ordinance and Support Letters

The 2025 rate ordinance, which includes the proposed new rate for C&D was transmitted to council this week. The package includes support letters approved by both MSWAC and SWAC. Thank you to everyone that participated in the discussions, provided feedback, and helped craft the message. We will be briefing county council members on the package over the next several weeks.

Long-Term Disposal Decision Sub-Group

The MSWAC Long-Term Disposal Decision Sub-Group held its 2nd meeting on May 20th, with the opportunity to deep dive into information provided by our consultants and discuss questions from cities. The group reviewed gasification, pyrolysis, and refuse-derived fuel and how they compare to the evaluation criteria. The next Sub-group meeting is scheduled for Monday, June 17th.

Washington Association of County Solid Waste Managers (WACSWM)

This week, Pat McLaughlin, SWD Operations Manager Mark Monteiro and I attended the annual WACSWM meeting in Ellensburg. Adrian Tan participated on a panel on EPR Legislative session with Paul Jewell, of WACSWM, Heather Trim of Zero Waste Washington, Vicki Christopherson, lobbyist for WRRRA, Carl Schroeder with the Association of Washington Cities and Dylan de Thomas of The Recycling Partnership. Paul Jewell shared that we are seeing unprecedented turnover in the legislature, with the Senate likely to become more progressive in January. WRRRA shared that a needs assessment needs to be completed, and noted that the best legislation is bipartisan, incremental, and based on compromises. Heather Trim noted that EPR and related bills are urgent due to local and global warming. Dylan de Thomas noted that there is a large engagement gap, the statewide recycling rate is only 23% and annually, 862,000 tons of recycled material is lost.

There was also a workshop with solid waste managers to evaluate solid waste funding statewide, especially as it relates to revenue reduction from less waste heading to the landfill. The association will be developing sub committees to explore 3 potential funding sources and possible strategy around them. These include modifying the Refuse Tax, developing a bottle deposit system, and revising the Litter Tax, which hasn't been updating since 1971.

Government Relations Administrator Recruitment Update

Today Amy Ockerlander will be completing the first round of interviews for the Government Relations Administrator (GRA) position. We received a significant number of highly qualified candidates, and we are confident that we will secure a great GRA out of the process. We hope to make a hiring decision by the end of the month and will share the announcement when a hire is official.

Quarterly Hauler Forum

We are gearing up for the next Hauler forum with King County and our partner agencies to be held on Monday, June 24th. This is an important forum for both the county and the haulers to discuss emerging issues and policy development. We'll provide an update on the meeting at the next MSWAC in July.

New MSWAC Member

Finally, I would like to take a moment to welcome Sam Tarvin from the City of Issaquah as the newest member of MSWAC. We are excited to see the active membership of MSWAC grow and would be thrilled to have all 37 ILA partner cities participate, especially as we dive into a long season of heavy policy work and decisions that will impact all of King County.

Van Orsow requested that the final signed version of the committee's letter of support be shared with members. Knight added as a point of interest that SWD incorporated member comments from the May meeting into the letter and sent it back out to the group for final comments. Those comments were integrated, and the letter went out for signature by Chair Sweet's direction. Ockerlander will send out the final version to the group after the meeting.

Van Orsow asked whether SWD would share any comments they're submitting to Ecology during the comment period for the landfill emissions reduction grants guidelines. In response, Stubbs indicated that SWD will be providing comments but hasn't transmitted them to Ecology yet. He will share out SWD's comments with the committee.

Debris Management Plan-Recommendation

Katie Jones presented.

There are two components to the Debris Management Plan:

1. Regional Framework (Base Plan)
 - Supports county agencies, cities, tribes, and special purpose districts within King County during large-scale disaster debris-causing incidents.
 - Describes how the County and its regional partners will collect debris, sort it, and transfer it to its final disposition location.
2. Jurisdiction Annexes

- Support specific jurisdictions during smaller scale incidents that might not warrant the need to activate the larger regional base plan.
- Operational plans that include the same planning elements as the base plan

SWD is serving as the regional lead on this work because it's part of King County Code, under Title 10.

We started this planning initiative in February 2023. We held 9 partner engagement meetings to encourage participation in the work. In April 2023 we had the official kickoff meeting. From May 2023 until March 2024, we held about 50 meetings with planning partners to gather information and start populating the plan. In June 2023 we provided an annex template to partners for them to start creating their plans. In March 2024 we finalized the draft regional framework, known as the base plan, and sent it out for partner review. We then integrated feedback and made final revisions. Last month we presented the proposed plan with a status update to both advisory committees.

As next steps we will be providing technical assistance to jurisdictions who wish to complete their annexes. Those annexes are recommended, but not required. We're sending out a survey soon to gauge partner preferences on the timing of those technical assistance trainings. We anticipate they will take place in early Fall.

Next month we're finalizing the regional framework and moving to Council review in Q3/Q4. We'll begin providing training on roles and responsibilities for the regional plan beginning in Q1 2025.

To collaborate and share materials with our partners we put out a periodic newsletter, host a Microsoft Teams site, and take questions and comments via email or phone.

We respectfully ask for the committee's support for the proposed Debris Management Plan as we move to Council review.

Knight asked if members agreed with advancing the proposed plan to the Executive. Members raised their hands and the majority agreed.

Long-Term Disposal Decision Options

Patty Lui presented.

During the May Long Term Disposal Sub-Group meeting participants took a deep dive into three of the disposal options being studied. Those options were refused derived fuel (RDF), pyrolysis, and gasification. We also looked at how each option compared to the six major evaluation criteria categories.

RDF is a process that screens out undesirable materials and creates either a pellet or fluff. The pellet or fluff is sold to incineration facilities such as cement plants. It's generally used as a substitute for burning coal. RDF is more commonly made from construction & demolition waste or waste with more limited material types. For municipal solid waste (MSW) RDF makes more sense for a low tonnage scenario. Users of RDF want a more consistent product, which would require sophisticated processing technology for MSW that is not typically part of RDF facilities.

The chlorides in our MSW pose a challenge as they are incompatible with the kilns that use RDF. Other challenges are contracts for RDF are typically only one year and we're not aware of any facilities within Washington that take RDF made from MSW, which means that is not a reliable market.

Gasification is the second option we explored. Gasification is a thermal conversion process that creates syngas as its primary product. The undesirable materials are sorted out and the rest of the waste is superheated to create a producer gas, which is then further processed into syngas. Depending on the characterization of the feedstock, the syngas is highly combustible. One downside to this method is the byproduct of tar. There are no known gasification facilities that could handle King County's tonnage.

Pyrolysis is the final method we discussed. Pyrolysis is also a thermal conversion process. Its primary end products can be gas, liquids or solids depending on the feedstock. Pyrolysis is best suited for wood, coal, or plastics. Materials such as metal and glass are sorted before processing. Pyrolysis has historically been used to make coal out of diesel and doesn't work well with MSW as feedstock. Like gasification, there are no known facilities that could handle King County's tonnage.

In Washington we have a state law known as the Clean Energy Transformation Action (CETA) that aims to fully transition the state to clean, renewable, and non-emitting electricity sources by 2045. That includes eliminating coal-generated power by next year and becoming GHG neutral by 2030. Under CETA solid waste is considered a non-renewable resource which means we would not be able to sell energy from gasification, pyrolysis, or mass burn in the state. There are also questions around whether we would be able to sell RDF made from MSW within the state under CETA.

There are upwards of 30 criteria as part of the study. We've narrowed it down in this presentation to the criteria where there are the most significant differences or points for illustration.

Beginning with economics, building a facility that can handle the mid-range tonnage would cost about \$200 million for RDF, and \$1.2 billion for either gasification or pyrolysis. Due to CETA, the consultants included a risk analysis around finding markets. RDF would equate to about \$62/ton, but the cost is difficult to predict on a longer timeframe given the one-year RDF contracts. Gasification would cost \$128 per ton and pyrolysis would cost \$159/ton. Without a market to sell to the prices would jump to \$181 for both gasification and pyrolysis. Without a market for RDF, the pellets would go to the landfill.

For the capacity criteria we found that none of these methods have facilities that could process MSW at the scale we would need in King County. The consultants reiterated that the capacity issue with RDF is the lack of markets we could sell to. RDF can handle the range of tonnage scenarios we're studying, but without markets, there's no value in producing RDF. Gasification and pyrolysis facilities are incapable of handling even our low tonnage scenario.

For the social criteria the consultant used the EPA's Environmental Justice Screening and Mapping Tool along with the Washington Environmental Health Disparities Map. These tools rate communities based on environmental quality and existing pollution sources, socioeconomic indicators, and health indicators. In selecting the site, evaluating the social criteria should give additional weight to localized impacts that exacerbate an existing disparity such as particulate emissions or high rates of asthma. The number of truck trips is double for RDF because of end markets and the volume of material going to the end markets. There are no significant impacts to groundwater, but all three options would include impacts to odor and noise primarily from trucks at the facilities. Pyrolysis and gasification also produce air emissions.

For the environmental impact parameters, the consultants used lifecycle analysis definitions and impacts:

- Non-renewable energy demand (Energy Production): measures fossil and nuclear energy from point of extraction. Includes coal, natural gas and oil which exist in limited quantities in nature.
- Water consumption: freshwater that is evaporated, incorporated into products and waste or disposed into the sea. Most of water consumption impacts in LTDOS occur due to processing or energy offsets, particularly energy offsets related to the hydropower portion of grid electricity.
- Eutrophication Potential (Water Quality) – environmental damage caused when bodies of water or soil become overly enriched with nutrients, primarily due to pollutants released into the environment such as nitrogen and phosphorus. Key plant nutrients, are added in large quantities causing rapid growth of algae in water bodies, leading to a decrease in oxygen which can kill fish and other aquatic life. This can also disrupt natural species balance and reduce ecological diversity.
- Acidification Potential (Air Quality) – environmental damage caused by release of acid-forming compounds into atmosphere, primarily due to burning of fossil fuels and biomass.

- Smog Formation Potential (Air Quality) –process by which certain chemicals in the atmosphere react with sunlight and heat to produce ozone, a major component of smog. Typically occurs when nitrogen oxides and VOCs, which are released during the combustion of fuels like gasoline and diesel, interact under certain conditions. Ozone at ground level is harmful as it can cause respiratory problems and other health issues, as well as damage vegetation.
- Human Health Toxicity –potential dangers to people’s health from release of toxic chemicals into the environment are significant. These chemicals can cause various health problems such as heart disease, kidney failure and reproductive disorders. Can also affect how our brains work and disrupt our hormone systems.
- Global Warming Potential (Climate Change) –potential increase in Earth’s temperature due to GHGs emitted by human activities. Main GHG is carbon dioxide released primarily through burning of fossil fuels like coal, oil, and natural gas. Another significant GHG is methane, which comes from breakdown of organic materials in environments without oxygen such as wetlands or landfills.

Reliable environmental impact data is not available for gasification and pyrolysis because facilities that process MSW are uncommon. As a result, we can’t summarize the environmental impacts compared with other disposal methods.

For RDF the environmental evaluation assumes that it would replace coal extraction and is used in place of coal for incineration. Water consumption for RDF is high because it replaces coal but does not replace grid electricity. The cancer potential for RDF is high due to the combustion of plastics. We submitted three tonnage scenarios to the consultant. The mid-range tonnage is the most likely scenario. Comparing all three scenarios, the high tonnage situation has higher capital and operating expenses for RDF and lower costs per ton. The low tonnage scenario has lower capital and operating expenses with a higher cost per ton. The high tonnage scenario creates the most jobs, truck trips, and more local impacts while the social impacts are lower for the low tonnage scenario. The same dynamic is true for the environmental criteria – they’re higher for the high tonnage scenario and lower for low tonnage.

In summary, RDF is:

- Proven technology at scale capable of processing amount of waste from the 3 tonnage scenarios.
- Cost effective option at \$46 - \$75/per ton if stable markets available. If markets not available, option not viable (landfill disposal would be the alternative).
- Markets for projected quantities of MSW RDF (300,000 to 800,000 tpy) limited due to technical challenges with chloride content and permitting requirements.
- Risky long-term disposal option due to lack of markets to take projected volume of material.

Gasification and Pyrolysis:

- No operating facilities that meet King County’s capacity needs and operation of gasification units still being developed.
- Not currently viable as long-term disposal option based on unproven operating history at scale and for MSW feedstock.

We propose removing these three options from further consideration in the long-term disposal process. This would include:

- They would not be part of the planning level EIS.
- They would not be discussed as options with elected officials and the public. They would be mentioned as options that were studied but the focus would only be on Mass Burn and Export.
- All this information will remain in the LTD Study to show the work and why they were removed from further consideration.

All options would remain in our final study to show the work and explain why we removed them. We would possibly reconsider them in the future.

Gire requested that the recommendation language be rephrased to remove mention of Mass Burn and Export, which have not yet been discussed. The sentence should be rephrased as follows: *“They would not be discussed as options with elected officials and the public. They would be mentioned as options that were studied.”* Lui agreed to amend the language.

McInnis noted that the presentation accurately conveyed the sub-group’s discussion and reiterated that the sub-group doesn’t believe these three are viable options.

Van Orsow agreed that the three options should be removed and the consultant shouldn’t do more work on them.

Deady noted that gasification and pyrolysis can cause significant health impacts, and while RDF is perhaps a more viable option, it also has significant, negative health implications.

Walsh added that the sub-group made a recommendation to remove these three options. We’re bringing that recommendation to the advisory committees to see if there’s agreement. We’d like a formal agreement to remove them going forward.

Donati expressed that he is in favor of removing the three options.

Knight asked the membership if they agree to move forward with the recommendation as amended with the rephrased sentence. Members were in agreement.

Recycling Coordinators Meeting Overview

Presented by Lauren Cole.

The Recycling Coordinators meetings have been ongoing for over 20 years, except for a pause during the pandemic. Attendees include staff from within King County, the Solid Waste Division, and Ecology. There are usually about 40 participants per meeting, which are held quarterly and are virtual. We’re also considering an in-person meeting once per year.

The goal of the meetings is to collaborate, communicate, and solve problems. Hannah puts together the agendas with input from members. Meeting topics concern improving solid waste management programs, updates from SWD projects, and updates from cities on their projects. The first hour of the meeting is focused on a presentation from King County or an outside speaker. The second half of the meeting is conducted as an informal round robin discussion.

During the most recent meeting on June 5th attendees talked about SWD grant opportunities, SWD’s school voucher program, and updates on the Bring Your Own Cup (BYOC) campaign. We shared the list of plug-and-play project ideas we’ve been developing for cities. It includes citywide swap events, repair events, food rescue opportunities, and more. We’re planning to share the finalized list with cities this month.

Jose Ochoa shared information about our school voucher program, which we’re using to provide funds to schools so they can improve their recycling and waste reduction efforts. Schools can use those funds to purchase bins, signage, reusable dishware, dishwashers, Green Team staffing, and more.

Adrian Tan shared an update on the BYOC campaign, which many cities have been involved in. He also shared information on the Northwest Product Stewardship Council, including which materials are under consideration for future policy development.

Cities also shared information on the programs they're working on. Many cities are focused on summer events that are implementing new techniques to reduce waste.

Nelson commented that she has always found the meetings valuable, and they are especially helpful for connecting new staff with folks across jurisdictions. A once-a-year in-person meetings seems useful.

South County Recycling and Transfer Station (SCRTS) update

Presented by Karen Herndon.

The SCRTS project is in its second year of construction. During the past year, we've seen the site cleared, the stream realigned, the Iowa Drive culver constructed, and most of the site retaining walls built.

Construction on the North Stormwater Detention Vault began last fall. It's the biggest of three planned stormwater vaults, holding more than 600 gallons of stormwater runoff. The vault is now built and in use. Construction on the South Detention Vault will be completed this summer. It will hold over 350,000 gallons of runoff. The third vault has not been built yet and will hold over 140,000 gallons of water.

The transfer building is also currently under construction. While preparing the site we ran into unsuitable soil from organic materials including trees and peat. We had to remove the materials, which led to considerable schedule and cost impacts.

The compactor bay, which makes up the lower level of the transfer building is now backfilled. Beginning in January 2025, the metal transfer building will be added atop the site. The operations building is also under construction and will eventually join the transfer building.

This summer there will be significant disruption to West Valley Highway South along the site for utilities work. The curb and pavement were removed, and stormwater catch basins installed along the road. Work started in mid-May and is expected to finish in August. We needed to have the City of Algona police department onsite to monitor traffic and help enforce directional lane closures.

The overall project budget is \$199 million, and the construction contract is about \$101 million. The project is currently about 32% complete. The unsuitable soil excavation cost us \$2.6 million in counting, but the project remains on budget and on time for completion in 2026. The finished project will have a large public art display on the major retaining wall by the entrance.

Gire asked if the \$4 million in change orders with \$2.6 million for the unsuitable soils is typical for a project of this size. Herndon responded that the construction manager, Jacobson Engineering is not shocked by the cost. We did some testing onsite and knew there was groundwater, but the organics took us by surprise. We're still contesting some of the contractor's cost requests.

Van Orsow asked about the status of the Haz Waste collection shed. Herndon responded that it hasn't come online yet, but the construction will begin next year.

Searcy asked about the unsuitable soils and how the borings were done. Herndon responded that they were localized. They conducted additional borings on West Valley Highway after the unsuitable soils were discovered and didn't find any more concerning material. We think the unsuitable soils are confined to the corner of the site where there used to be a wetland.

Knight asked about the sustainability certification for the project. Herndon responded that we're striving for the Living Building Challenge's petal certification. We're in line to achieve 5 petals.

Northeast Recycling and Transfer Station (NERTS)

Clynn Wilkinson presented.

Our existing Houghton Transfer Station, built in the 1960s, has outlived its useful life. The 2019 Comp Plan outlined the need for a new facility. We're currently going through the State Environmental Policy Act (SEPA) process and developing a draft Environmental Impact Study (DEIS) for the Northeast Recycling and Transfer Station Project. SEPA is a law that requires local agencies to identify potential environmental impacts of proposed plans through a formal review process.

There are many environmental elements studied and analyzed within the DEIS. Each one compares SWD's proposed action alternatives and a no action alternative.

During the 62-day DEIS comment period we held 3 public meetings. Our first meeting in Kirkland attracted over 60 attendees, our second meeting held virtually had 50 attendees, and our third meeting in Woodinville had 115 attendees.

By the end of the comment period, we received just over 1800 comments total. The most popular way to submit comments was via email. In addition to our public meetings, we conducted outreach to the community via an online open house, direct mailers, and email. We also conducted a multilingual digital ad campaign that received over 15.5 million views, social media posts, as well as direct emails to community groups, tribes, and other stakeholders.

We are currently in the final stage of the SEPA process. Initially the final EIS was scheduled for Q3 2024. Due to the volume of comments and the time it'll take to review and respond, we're pushing out the final siting decision to the end of 2024. Once the site is selected, we'll move forward with preliminary design in Q1 2025. The draft EIS document is still viewable on our website.

Member Comment

Moldver shared that he had attended a zero-waste celebration at a local QFC store that has a 90% diversion rate. All of Kroger has implemented a zero-waste policy, but only a few stores have achieved such a high diversion rate. He'll be working with QFC to find out more about their program and to encourage greater diversion by other stores in our region. Knight asked about QFC's public-facing collection of plastics and other materials. Moldver shared that all the product plastic is baled, and they collect plastic bags from the public. They also do food rescue in an impressive way. They check and pull overstock food items while it's still good to donate it to foodbanks.

Adjourn

Meeting adjourned at 12:49 p.m.