

**Cedar Hills Regional Landfill  
Spring 2024 Community Meeting  
April 17, 2024  
In-person Presentation**

Facilitator Kalyn Brady opened the meeting. Tonight's speakers are:

**Pat McLaughlin, Solid Waste Division Director**

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**Laura Belt, Solid Waste Division Supervising Engineer**

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**Joseph Newton, Cedar Hills Regional Landfill Supervisor**

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## Introduction

**Solid Waste Division Director Pat McLaughlin welcomed everyone and began the presentation.**

Tonight, we will be sharing information about our operations at the landfill, the work that we have completed since we last met, and construction that is underway right now. I am grateful to all of you for being here.

This is a busy time for the Solid Waste Division as we make final preparations to begin construction of Area 9. We will share information about our current efforts to move buildings and relocate staff to make room for the final refuse cell. We are also in the midst of developing next steps, in partnership with our municipal partners and County leadership, to determine a long-term disposal option for materials as we expect the last cell of the landfill to reach capacity in 2040. We will keep everyone informed during this process. Although there is still time before we reach that juncture, transitioning to an entirely new way of handling waste for our region is an enormous undertaking that requires our time and effort now, to ensure we find the best alternative to serve the people of King County.

The most recent statistics show that about 68 percent of materials going into the landfill don't belong there, i.e., they are recyclable or recoverable materials. In 2019, it was 73 percent, so we have made some progress in keeping recoverable materials out of the landfill.

We are continuing to expand our efforts to divert more resources and are looking at policies and partnerships that can move those resources into the economy. The less waste we generate, the less waste there will be to dispose of.

There will be a QR code that is emailed to you with more information on environmental stewardship and community engagement at Cedar Hills Regional Landfill. If you provide your email address, we can continue to easily share information with you. A copy of the presentation will be available online.

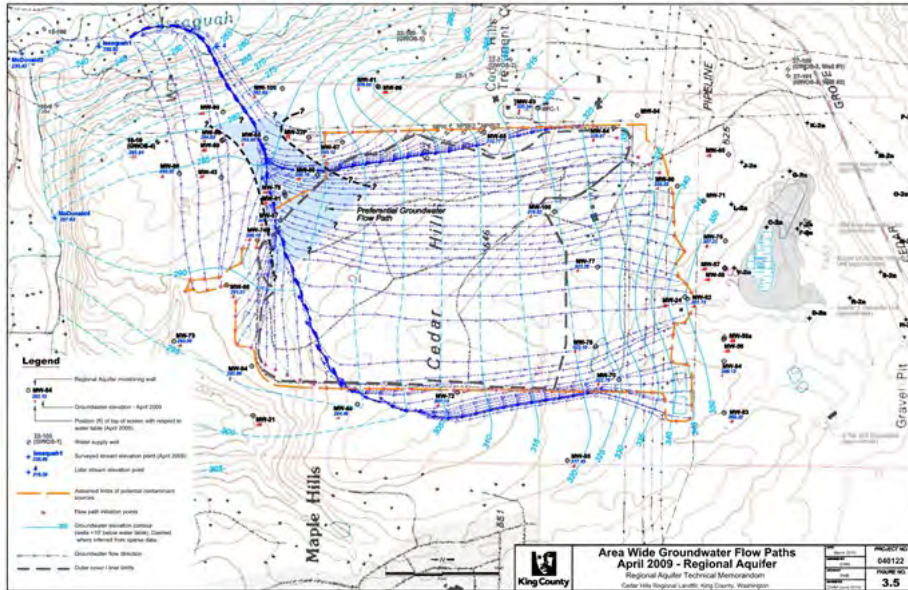
The audience can ask questions during the Q&A. If we run out of time, there will be another format available to ask questions. The minutes will also be available on the website.

If there is something going on that our staff needs to be aware of, please call us at 206-477-4466. That line is staffed 24 hours a day, 7 days a week and is always available to you.

### **Construction and Environmental Monitoring: Laura Belt**

- In January, we successfully installed 18 dual-phase wells, which allow us to pump liquids that accumulate in the landfill and send gas out as well. In addition, a consultant assessment of possible areas of improvement in landfill gas collection resulted in a recommendation for additional vertical wells – nine were added with closure of Area 7, and 18 wells were added in Areas 4 to 7. We are working with a consultant team to identify optimal locations for installation of approximately 50 additional wells.
- At the last community meeting, we mentioned the plan to conduct a test flight with the Sniffer Drone to measure methane and we have received results of our test flight. There were no regulatory exceedances found. We are working on developing a contract to use a Sniffer Drone regularly and are also evaluating stationary location technology. We found there were a lot of problems with stabilizing the tripods on the landfill and will continue to look into this. Evaluations of gas flow continue daily.
- We are looking into treatment options to address arsenic in the wastewater. We have had no exceedances this year.
- This summer there will be construction activities at the landfill and if there are any issues, please let us know. We are preparing for repairs to the stormwater outflow in the north buffer and construction of Area 8 to cover Stage 1 will both occur this summer. The cover will allow for more effective landfill gas collection.
- Also, this summer we will place interim offices near the North Flare Station so we can begin the construction of Area 9, and some staff will move off site. We will be building a new facility in the south end that staff will be able to move into in a few years as a new permanent location.
- We are planning for the removal of the soil stockpile to prepare for construction at Area 9.
- Aeration upgrades will begin next year, and we have hired a consultant to help us identify the best replacement solution for the Four Interior landfill gas header.
- We are also preparing a plan for Area 9 excavation in 2025. In 2025, we will be preparing to fill Areas 5 and 6, anticipated to start in 2026 based on the current rate of garbage fill. There will potentially be drilling activities that you might notice, and this will likely occur late in the year.
- The groundwater level and quality are tested quarterly and the groundwater leaving the site is compliant with drinking water standards. There are 48 groundwater monitoring wells located throughout the site. Compliance concerns relate to the northeast corner, which is the direction that the groundwater flows under the site and exits. The groundwater monitored in wells in the northeast meets drinking water standards.
- We are continuing to monitor the Perched Zone, an area impacted by past landfilling, and are working with the Department of Ecology to implement recommendations. A hydrogeology consultant has been hired and has begun evaluation work to update our hydrogeology report.

We will be implementing consultant recommendations for the decommissioning and replacement of groundwater wells on site.



## **Landfill Operations: Joseph Newton**

The spring public tour will be on April 27, at 9:00 a.m. To sign up, visit [kingcounty.gov/cedar-hills](http://kingcounty.gov/cedar-hills). There has been a lot of change at the landfill, so if you haven't visited in a while, we invite you to come and see.

There have been traffic pattern changes, and we are now operating on the west perimeter road of Area 7 to dump garbage in Area 8. Going into the summer, we will be hiring eleven seasonal employees to assist with vegetation management.

We are in the planning phases of the deconstructing properties we have purchased in the east buffer and work is estimated to begin in September. We will continue security patrols to monitor these properties three times nightly, between 9:00 p.m. and 5:00 a.m., seven days a week. If you notice anything related to these properties, please let call 206-477-4466.

## **Question and Answer Period**

Kalyn Brady set the ground rules for the Q&A.

### **Has the report for PSCAA on the arsenic levels been submitted? And is it online?**

We have not submitted the results because we do not have the report finalized. We were given an extension until May 21 by Puget Sound Clear Air Agency (PSCAA) to finish. The information will be available once the report is finalized and submitted to PSCAA it.

**Is the surface water tested for arsenic? What are the results?**

Historically, we have not detected large quantities of metals. Surface water sampling is done quarterly in accordance with the requirements of our Industrial Stormwater General Permit. This includes testing for 12 water quality parameters specific to landfills. The State has designed a well-considered program for monitoring at landfills and we follow these requirements, which do not include arsenic as one of the parameters.

Sampling is conducted at three locations around the landfill --one in the north end, one in the south-central portion of the site, and one in the southeast corner of the site.

**Can we talk more about the arsenic? Did you test the water coming off the northeast corner? Has there been arsenic detected in the water? Is there still arsenic in the landfill?**

Arsenic tested in the groundwater wells where groundwater leaves the site has not exceeded drinking water standards. We have never had a risk of arsenic entering the groundwater. The arsenic in wastewater is in a contained system that goes to the wastewater treatment plant.

The arsenic exceeding regulatory limits and considered dangerous waste was primarily in the condensate coming out of the BEW plant. Since the plant has stopped operating, there have been no exceedances of arsenic. Arsenic is present in some materials at the landfill and in soil. There are sites at the landfill, such as the North Flare Station, that generate condensate that could contain arsenic, but these are smaller amounts. If such condensate is identified as dangerous waste, it will be managed in full compliance with our regulatory permits.

**Given that there's been three independent studies, Cedar Hills has a large plume of methane that exceeds what they report to the EPA. Did King County survey the entire landfill for the exceedances or did we ignore the active areas? And what will King County do about the plumes? What are the regulatory limits [for methane emissions at the landfill]?**

We don't agree with the characterization of "a large plume of methane." We regularly monitor the landfill system and surface to identify potential emissions and address them appropriately. EPA regulations require action on any detections of 500 ppm or higher. However, we act when any detection of 100 ppm or higher. Emission detections are required after waste has been in place for five years. Area 8 will be approaching this milestone in September 2024. Recent drone scans above the active area did not detect any emission detections above regulatory limits.

**Since you put in new vertical wells, has gas flow increased?**

We've had some increase in gas flow and expect it will continue to improve as we make further adjustments to the wells. We also expect that as we remove more water from the landfill, gas flow will further improve.

**Do you have to remove Area 5 and 6 cover dirt before you start filling? How will odors be controlled when soil cover is removed from Areas 5 and 6?**

We are working with a consultant on an odor control plan, because uncovering old garbage is going to produce odors and we need to find a way to minimize those odors. Some ideas include re-covering areas as much as possible - we are investigating what the right amount of cover to leave on would be, and we are committed to preventing and addressing impacts.

We are looking for guidance from our consultants and vetting it internally to see if it makes sense. We are in the planning process right now and don't yet know what it is going to look like.

**Is [returning to a former refuse cell] something that other landfills do? Or is top-lifting unique to CHRL?**

Other landfills do place waste on old areas, such as what we plan for Areas 5 and 6, but circumstances may differ and there are a lot of things to consider, such as where the landfill is located and the conditions under which they operate. Input from our consultants is valuable because they see different landfill projects and practices and bring their expertise to us.

**Are you taking Areas 5 and 6 to a higher elevation because you didn't reach the max height?**

Yes.

**How much height will be added to Areas 5 and 6?**

It will vary because the landfill has settled differently over the years. We estimate the height addition to be between 20 and 60 feet.

**When Areas 5 and 6 are full, what alternatives are being considered?**

When we reach capacity in 2040 or so, we are looking at a variety of options including waste export to another landfill, which is what Seattle and Snohomish County do. We are also evaluating the feasibility of a waste-to-energy (mass burn) plant, which is the most likely technology capable of handling our volume. Also, refuse-derived fuels (gasification and pyrolysis) are being considered. Each of those options have varying degrees of financial, scalability, and environmental impacts. There is also a leading-edge technology still in the development stage that takes solid waste and produces sustainable aviation fuel. That technology is not available to us in our current planning window.

All of these options will have residual garbage that we will have to deal with. even waste-to-energy produces ash.

**Will a long-term disposal decision be reflected in the 2026 Comp Plan?**

Yes.

**Where is soil going to be stockpiled for Area 9? Are the options onsite?**

The division is still looking at best options, including stockpiling it or storing it, both of which involve costs. One thing we do know is that it will not be stored in the buffer. There are some areas where we could do stockpiling, but there are two million cubic meters of soil, so most will be disposed of offsite.

**Does Area 9 have garbage in it?**



No, there are some underground storage tanks we will need to remove but there is no buried garbage.

**Do you have a list of items that comprise the 68% of materials that go into the landfill that are recyclable?**

Yes, there is a list on our [Re+ website](#). The biggest piece of the pie is food waste and organics – about 30 percent. This includes edible food like completely packaged food. Wood is also another priority, with about 60,000 tons ending up in the landfill per year. Re+ is all about rethinking the way we manage materials. There is an important need for us to rethink, reuse, recycle and repurpose materials. We need new policies that include recycling requirements, and we need to preserve the environment. When we put more materials back in the economy, it also creates new jobs to support new markets.

We need to move away from aspirational recycling and ensure that there is a market for these materials to go through. We need education and policy, and we are excited about the partnerships that can move us further in the right direction. Last year, we did a pilot program with Georgia Pacific called Juno, where we sent 3,000 tons of garbage to their plant in Oregon. They sorted and processed the garbage and were able to recover about 45 percent recyclable/recoverable material from that waste. That was the last point of the waste stream, and it would be less expensive to keep it out of the waste stream. We are working with cities and the public to see how we can change our practices.

**There was a survey concerning the option of food waste – has this been completed and analyzed? If you increase the food recycling, will the compost/organics go to Cedar Grove?**

We surveyed cities and unincorporated areas about organics service, but not everyone has that service. The state legislature just passed a new law (HB 1799) that will require all single-family homes to have organics collection services. King County doesn't direct where compost and organics go. We have authority regarding where garbage goes as part of flow control, but not for recycling or organics. Materials could go to other companies that process food waste, including organizations out of the area. There are organizations that use the organics as a feedstock for renewable energy, so that is also a possibility.

**Does SWD have a market development program? Is there a communications line where you see items that could be recycled and recommend it?**

Yes, we have a market development program to increase recycling and access to markets. Mattress recycling is a recent example. Solid Waste began with a mattress-recycling pilot program at two of our transfer stations and now has an ongoing mattress-recycling program at five stations. The wood in frames is ground into "hog fuel," metal is recycled, and foam is turned into such products as carpet underlay, fatigue mats, and dog beds.

We have a grant program that makes \$7 million available to companies to help with market development. Food waste is still a great opportunity. We look at commodities as well as legislative measures, such as Extended Producer Responsibility (EPR). Whether it's a package or a product, EPR is a way to bring producers to the table to help solve the problem through requirements to have recycled content, or to manage end-of-life products. There are a lot of commodities where we are bringing producers into the conversation, e.g., medicine and paint take-back and electronic waste programs.

Paper and plastic material are a great opportunity. We can't do it alone; we need policies and statewide partnerships to help.

Our Customer Service line at 206-477-4466 offers one-on-one information about what can be recycled, and where.

### **Will I be forced to pay for compost and trash collection?**

There are exceptions for people who are composting at home or taking their waste to a transfer station.

### **What is the Uplift program?**

SWD has a low-income discount for transfer station visitors called Cleanup Lift, and those who qualify get a discount on the disposal fee. Because the discount only applies if you come to the transfer stations, we are actively working on a low-income discount program for garbage and recycling curbside collection. We are working with Public Health to bring the program forward and hope it will be up and running by 2025 to assist customers who are trying to do the right thing but have a financial burden.

### **Several homes were purchased on 230th Ave SE [near the landfill], how are we going to manage the deconstruction materials?**

We have or are planning to repurpose materials. In all cases, we have partnerships with organizations to salvage and reuse building materials. We developed a plan for deconstruction whereby we methodically deconstruct the houses so we can preserve the materials that can be recycled or reused and put back into the marketplace. We have partners that help us do that.

We have a debris and material system in King County where contractors can bring and collect materials. We may be able to reuse some of the mobile homes. Reuse and salvage are our first choice.

### **Since EPA has put in regulations for PFAS, will you be testing for PFAS?**

We have participated in early EPA studies on PFAS and will continue to work closely with our regulators and experts to understand how to best manage the presence of these "forever chemicals".

### **Has the additional candlestick flare been installed?**

No, it has not yet been installed. Once a contractor has been hired to manage the project, the candlestick flare will be installed to replace the low-BTU flare. We will then look at how it fits under the landfill methane rule that will be published by the State in May. A draft rule was published and received a lot of comment, so they have to respond to the comments. After its finalized, we will know how we will handle it.

## **Comment Period**

There is a movie available free of charge ("Trash") that covers some of the issues that are handled by the landfill. It is a global issue and if we don't take care of the problems, waste will take us out.

Yolanda Pon from Public Health mentioned that HB 1799 was passed in 2022 and HB 2301 was passed to extend HB 1799.

Meeting adjourned at 7:40 p.m.