



Cedar Hills Regional Landfill Community Meeting Notes October 25, 2016

Issaquah Library • 10 West Sunset Way, Issaquah, WA 98027

In Attendance

King County Solid Waste Division staff

- Scott Barden, Assistant Operations Manager
- Laura Belt, Engineer III
- Bill Berni, Operations Manager
- Neil Fujii, Managing Engineer
- Toraj Ghofrani, Engineer III
- Kathy Hashagen, Facilitator
- Kevin Kiernan, Assistant Division Director
- Matt Manguso, Communications Specialist
- Polly Young, Program Manager

Other King County employees

- Dhillon Darshan, Health and Environmental Investigator II, Public Health
- Marquis Frank, Housing Project Manager, Community and Human Services

Bio Energy Washington (BEW) staff

- Kevin Singer, BEW Plant Manager

Interested parties

- | | | |
|----------------|--------------------|------------------|
| • Mark Blume | • Edie Jorgensen | • Rich Nelson |
| • Karen Dawson | • David Kappler | • Rick Reininger |
| • Leo Finnegan | • Rey Karlsson | • Joe Walls |
| • Mike Gunn | • Voyislav Kokeza | |
| • Eric Hudson | • Barbara Marowitz | |

Welcome and Introductions

(Kathy Hashagen)

Kathy Hashagen began the meeting by welcoming those in attendance and reviewing the agenda. She noted that the library closes at 9 p.m. and the meeting must be completed by then. Hashagen introduced Solid Waste Division Assistant Division Director Kevin Kiernan who introduced Solid Waste Division (SWD) and other King County staff in attendance. Kiernan announced that Engineer Laura Belt, a 26-year employee, would be assuming the role of providing updates at these community meetings. Kiernan reiterated that the following elements of these meetings would continue:

- Division staff will continue to provide information about recent and planned activities at the landfill, and the BEW plant manager will do the same regarding their activities

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- Meetings will continue to occur twice a year in the spring and the fall
- Notes will be provided on the division's website that summarize issues discussed at these meetings; the notes are not intended to be verbatim transcripts
- Per King County Code Chapter 2, Section 2.21.060, there may be times when county employees are prohibited from discussing certain topics with people who are not county employees:
 - Incidents that could reasonably lead to claims or lawsuits against the county, or
 - Incidents that are the subject of pending claims or lawsuits

Kiernan also announced his retirement at the end of the year.

General Updates

(Laura Belt)

In September, the King County Council authorized a rate increase for solid waste fees, which is the first rate increase since 2013. This will increase the monthly bill of a typical customer with curbside collection services by an estimated 77 cents a month, while transfer station customers will see the minimum fee increase from \$22 to \$24.25 and the per ton fee increase from \$129.40 to \$144.34. These new fees go into effect on Jan. 1, 2017. The rate increase will allow SWD to sustain current services, develop new services and programs, such as recycling, and continue work on capital improvement projects like the completion of the new Factoria Transfer Station in Bellevue, and a new South County facility to replace the Algona Transfer Station.

In April, SWD celebrated 50 years of operations at the Cedar Hills Regional Landfill. About 100 people attended this public event, which included displays and tours of the landfill, and remarks by King County Deputy Executive Fred Jarrett who discussed the role the landfill has played in the region's history.

Belt reminded those in attendance about how to contact the Solid Waste Division to report a concern. The number to call is 206-477-4466. It is especially important to use this number because that is how SWD logs and documents calls. If neighbors feel their concern is an emergency, it is imperative they call 911. It is also important to note that the number for the King County Roads Division, which handles SWD calls off-hours and on the weekends, has changed to 206-477-8100.

Construction and Environmental Monitoring Activities

(Laura Belt)

Construction of Stormwater Ponds and South Solid Waste Area (SSWA) Excavation

The South Solid Waste Area is an old area located in the southern portion of the landfill that is about 31.5 acres large and was closed about 30 years ago. To make room for the relocation of two stormwater ponds, one for clean stormwater and one for contaminated stormwater, garbage and soil were removed from the entire area and moved to other areas of the landfill – garbage was disposed in the active area and the clean soil was stockpiled on site. Excavation of the area was completed last November, and the two new ponds are just about complete.

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As was mentioned at the April 2016 meeting, three areas of contaminated soil were discovered during the excavation. After receiving a waste clearance permit, two areas of the contaminated soil were buried in a lined area of the landfill. The third area was higher in contamination and contained about 1,000 yards of soil. The division consulted with its regulators, Public Health and the Department of Ecology, to develop a plan to dispose of that soil, and it was sent to an offsite facility for disposal earlier in October.

Area 8

SWD is in the final design phase of Area 8, the next landfill cell to be developed. A construction contract for that work is expected to go out in March. That contract will include construction of the new Area 8 as well as closure on Area 7, currently the main disposal area. Work will include excavating two million cubic yards of soil and installing environmental controls for leachate and landfill gas collection. The work to develop Area 8 will take about two years with expected completion at the end of 2018.

Installation of New Landfill Gas Pipeline

SWD's installation of a new pipeline to add redundancy to the landfill gas system is about 90 percent complete. This new pipeline will be the primary means for sending landfill gas from the North Flare Station to the onsite BioEnergy Washington (BEW) facility. The pipeline's route goes around the west side of the landfill and stays out of the buffer. Part of the work also involves installing a new booster blower system near BEW, which will allow the system to continue to operate under a vacuum. SWD expects the new pipeline to be fully operational by the end of February 2017.

Groundwater Quality

There are 61 groundwater wells throughout the landfill that monitor groundwater levels, water quality, and flow direction to ensure the division is in compliance with regulations and permits. In the past, SWD sampled 45 of those wells every quarter but recently the Department of Ecology approved a request to change the sampling frequency to reduce redundancies and be more efficient while maintaining monitoring goals. The division checks the water levels in all 61 groundwater wells quarterly, and checks the water quality in 38 of those wells. With the change, the division now samples some of those wells semi-annually and some quarterly.

SWD also monitors four offsite drinking water supply wells once a year. The most recent testing shows there are no significant changes in groundwater quality. All reports related to groundwater monitoring, including quarterly reports and the 2016 Annual Report, are available on the division's website:

http://your.kingcounty.gov/solidwaste/facilities/documents.asp#cedar_reports.

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“Overarching” Project (Environmental Control Systems Modification Project)

For the past three years, SWD has been evaluating the entire system of environmental controls to ensure everything is working properly and that no improvements need to be made. Those controls are monitored independently but this project is different in that it looks at the entire system as a whole.

Landfill Gas

As a result of this overarching project, SWD has been changing out older valves on wellheads and testing precision valves that allow better control of airflow. The older valves could only be turned on or off. In June, 20 precision valves were installed and SWD is evaluating the effectiveness of those valves.

Every year, SWD tests the integrity of the landfill gas pipeline. That test was completed in early October and passed under the standards set by the American Society for Testing Materials (ATSM).

Groundwater Data

At the last meeting, SWD discussed taking water samples from a small “perched zone” that is not connected to drinking water or the regional aquifer. The perched zone is more like wet sand, not strictly water, and it has been impacted by past landfilling activities. SWD completed sampling of the perched zone in August 2016 and has begun drafting a Remediation Investigation Feasibility Study in collaboration with the Department of Ecology. A final report is expected in the second quarter of 2017.

Leachate Lagoon

In 2015, SWD tested the liner in the leachate lagoons and found four anomalies in the liner. Because of where the anomalies were located, the lagoons needed to be drained and the liner inspected by hand. One of the anomalies was located in the west lagoon on a side slope and after inspection it was found the anomaly was not a leak but a small depression, like a divot. To ensure that area would hold up in the future, SWD placed a patch over the divot. The three anomalies in the east lagoon were in the bottom of the liner and because of the amount of sediment in the pond and the beginning of the stormy season, SWD was unable to get to the areas of concern. The division is determining how to approach these anomalies going forward.

Landfill Site Development Plan

The purpose of a Site Development Plan project is to look at ways of extending the life of the landfill by developing more disposal capacity. Current Interlocal Agreements with King County cities states SWD must provide disposal service until 2040, so the Site Development Plan is looking at alternatives of how to achieve that at the landfill. SWD has identified five alternatives and is currently studying the environmental impacts of those alternatives. Particularly, the studies look at noise, aesthetic, and air quality impacts.

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Neighbors who live adjacent to the landfill may have received a letter from the Eben Sutton of the Solid Waste Division about upcoming noise studies and putting noise monitoring equipment on your property. This equipment will be used to study noise impacts of the development potential alternatives.

Landfill Odor Complaints

At the last meeting, neighbors asked if SWD received information about landfill odor complaints from the Puget Sound Clean Air Agency (PSCAA). At that time, SWD did not, but after hearing neighbor's concerns the division spoke with PSCAA and is now receiving those complaints. Once received, SWD's Operations' staff compares PSCAA's odor log with SWD's odor log.

Trees

Also at the last meeting, a neighbor asked about the health of the trees in the western buffer. The neighbor also expressed an interest in having more evergreen trees than deciduous trees. SWD hired a forester to look at the health of the forest in that area of the buffer. The forester reviewed the area in April and stated it is a healthy forest going through a normal succession from deciduous to evergreen trees. SWD could remove deciduous trees and plant new evergreen trees, but those would need time to mature and would result in less of a buffer. SWD has decided to take the recommendation of the forester to perform regular monitoring of the health of the forest every two years.

Operational Activities

(Scott Barden)

Odor Complaints

In response to neighbor concerns at the last meeting about an increase in odors on the northwest side of the landfill, Operations staff met with engineering staff to discuss how to address those concerns. The two groups came up with four ways to address the concern. For the current lift in Area 7:

- By lowering the lift height from 30 feet to 20 feet
- Reduced the amount of time a lift occurs from 20 months to 12-15 months
- Narrowed the placement of landfill gas collection systems from 180 to 120 feet.
- Changed the disposal direction to east to west to allow the gas collection systems to be turned on sooner.

Soil from Factoria

From June through September, about 90 truckloads of clean soil arrived at the landfill each day from the Factoria Transfer Station in Bellevue. In October, truckloads decreased to 15 a day, and in November SWD expects only five truckloads a day. With the onset of winter, that truck traffic will significantly decrease, but will pick up again in February and April 2017. The division expects there will be about 25 truckloads a day for a portion of those two months.

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Vegetation and Road Maintenance

During the summer, SWD conducted its normal weeding, mowing, other vegetation removal and some light road maintenance, including filling potholes. With the busy construction season this year, the division is a little behind schedule with maintenance, but completion is expected by the end of October.

Dual Fuel Pilot

At the last meeting, SWD mentioned it was conducting a test on using a truck that could run on both diesel and compressed natural gas (CNG). The truck became operational in June, but the power and performance results haven't been what SWD was hoping for. SWD will continue to use the truck and do more testing and make a decision in the next few months to either continue the pilot or change direction.

Annual Landfill Tour

The October landfill tour was well-attended with 30 people, including neighbors and a Boy Scouts Troop. Though the weather was rainy, those on the tour asked good questions and were able to see a lot of wildlife.

Question and Answer

The following is a summary intended to capture the general content of the questions asked and the answers provided; not a verbatim transcript.

Is Factoria in Bellevue?

- Yes, the Factoria Transfer Station is located in Bellevue.

What alternatives are there to providing service to cities until 2040 other than to continue to landfilling?

- There are options, other counties transport their waste via train to other landfills and there are other technologies that look to process waste without landfilling. However, with the exception of incineration, those technologies are not well-proven yet. Most alternatives will cost ratepayers more than it does to landfill.

Is there a plan to close the landfill?

- SWD is currently in the process of developing a *Comprehensive Solid Waste Management Plan* that will be the guiding document for how the division moves forward with providing disposal service and, eventually, closing the landfill. That plan is expected to be completed in about 18 months.

Have your plans to address odor concerns been completed yet and are there other ideas you have?

- The changes mentioned by Scott Barden – lowering the lift height, reducing the amount of time between lifts, narrowing the placement of gas collection lines, and changing the

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direction of garbage disposal – are currently in place right now. SWD is always evaluating ways it can improve its operations.

Is population growth affecting tonnage increases?

- When the recession hit in 2007-08, tonnage dropped about 20 percent. Before the recession, SWD anticipated tonnage would be at or greater than a million tons a year, but now we're only at about 900,000 tons a year. The economy drives tonnage more than population does.

What creates odor and why does it vary?

- Decomposition of garbage generates landfill gas, which carries odor. SWD uses daily cover, either soil or tarps, to contain odor at night, as well as installing landfill gas collection systems to capture landfill gas. The biggest reason odor varies is because of barometric pressure changes.

Are odor complaints available to the public?

- Yes, copies of odor complaints are available upon request by contacting the Solid Waste Division.

Does extending the life of the landfill involve enlarging the footprint?

- With the exception of purchasing an adjacent parcel in the northeast corner of the landfill, the footprint of the landfill will not be changed to accommodate future increased capacity. SWD will maintain the 1,000 foot buffer.

What is the cost of exporting waste vs. landfilling?

- *This answer was gathered after the meeting:*
The Solid Waste Division has landfilled, not exported waste generated in King County since the 1960s. The cost to landfill waste at the Cedar Hills Regional Landfill in 2015 was \$34 per ton. Every two years, the division looks at what it costs other local governments to export waste. In 2015, the City of Seattle paid \$42 per ton to export waste. When we compare the cost to export waste versus the cost of landfilling waste at Cedar Hills, the Cedar Hills option is consistently lower than exporting waste.

Which direction are the prevailing winds?

- Winds blow from the west toward the east.

Is the air operating permit expired? When will it be renewed?

- Yes. The permit asked SWD to apply for a new permit in a certain time, and SWD filed a timely renewal application. PSCAA has told SWD it is operating under the same terms as the existing permit. We have not yet received a revised permit from PSCAA.

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Are CTI trucks moving dirt from Factoria to the landfill? They are frequently seen using cell phones while driving

- No, CTI trucks are hauling to Cedar Grove Composting. *Update from Karen Dawson of Cedar Grove Composting: CTI trucks are in fact hauling to Cedar Mountain Reclamation. Cedar Grove Composting operations staff informed Cedar Mountain Reclamation so they can address it directly with CTI.*

Are there night operations?

- No equipment runs at night. There is only a pickup truck used by a security guard and a Shop shift that works until 11. Nothing occurs on the active area of the landfill.

Are there health effects of landfill gas?

- When we did the 2010 Site Development Plan it included an Environmental Impact Statement which did not identify any health impacts. SWD is unable to make judgement about an individual's health. For more information, visit:
<http://your.kingcounty.gov/solidwaste/facilities/cedar-hills-development.asp>.

Transfer trucks should go down Maple Valley Highway instead of May Valley Road

- The majority of SWD's truck drivers use Maple Valley Highway (SR 169). Occasionally, during heavy traffic times, drivers may decide to use May Valley Road instead.

Why doesn't SWD just put noise monitoring equipment on landfill property?

- By placing noise monitoring equipment in the community SWD hopes to get a better understanding of how neighbors experience noise. Topography offsite can affect noise transmission.

Bio Energy Washington (BEW) Plant Update Plant Operations

(Kevin Singer)

Kevin Singer explained BEW has three core values – health and safety, environmental compliance, and continuous improvement. There are at least two people on site at all times.

Health and Safety

There were no injuries at the plant in the past six months.

Environmental Compliance

BEW will conduct its annual emissions check in November. Monthly checks are conducted on generators to ensure everything is working properly, as well as monthly condensate studies.

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Continuous Improvement

BEW increased its operations uptime by about 1.5 percent in the past six months, which translates to about 90 less hours of flaring. BEW is able to generate enough gas to power 35,000 homes per year.

Upcoming Projects

Upcoming projects include inspections, routine maintenance, cleaning parts, with no plans for major expansion or growth.

Question and Answer

What would BEW consider to be the biggest emergency it could have?

- It's very difficult to rank emergencies, but BEW does have contingency plans for any major incident that could happen. The plant was designed to withstand any hazards or risks that could occur, and it is considered a "fail-safe" plant, meaning it is designed to shut down in the event of an emergency. There is also a very extensive sprinkler and fire protection system. As far as earthquakes, regulations define how BEW prepares for those and the plant was designed for the appropriate seismic classifications.

Where does the pipeline that leaves BEW go?

- BEW delivers gas to Puget Sound Energy where an odorant is added before being transferred underground to the Williams Pipeline and then to a South Seattle transfer area owned by Williams.