



Cedar Hills Regional Landfill Community Meeting Notes October 14, 2015

King County Library Service Center • 960 Newport Way NW, Issaquah

In Attendance

King County Solid Waste Division staff

- Scott Barden, Operations Supervisor
- Bill Berni, Operations Manager
- Lynde Eller, Capital Project Manager
- Toraj Ghofrani, Engineer III
- Kathy Hashagen, Facilitator
- Kevin Kiernan, Assistant Division Director
- Matt Manguso, Communications Specialist II
- Polly Young, Project/Program Manager III

Other King County staff

- Marissa Alegria, Community Liaison, Department of Natural Resources and Parks

Bio Energy Washington (BEW) staff

- Kevin Singer, BEW Plant Manager

Interested parties

- | | | |
|----------------|------------------|-----------------|
| • Bill Beck | • Edie Jorgensen | • John Richards |
| • Kim Brighton | • Sean Kronberg | |
| • Karen Dawson | • Leslie Morgan | |
| • Dana Ericson | • Rick Reininger | |

General Updates

(Kevin Kiernan)

Kathy Hashagen began the meeting by explaining the agenda and introducing Kevin Kiernan, who introduced King County Solid Waste Division employees and Marissa Alegria from the Department of Natural Resources and Parks.

Construction and Environmental Monitoring Activities

(Kevin Kiernan)

Area 7 Cover

The division is currently working and putting garbage in Area 7, also known as the “active area.” This project involves putting cover on the south- and west-side slopes that have reached final grade. Typically, this work is done about once year and also involves relocating gas collection

Solid Waste Division

lines. We've had good weather this year and the project is on time and under budget. We plan to continue to operate in Area 7 for a number of years.

South Solid Waste Area

The South Solid Waste Area (SSWA) is an old disposal area and is now being excavated to accommodate the relocation of stormwater ponds. The area has no bottom liner, but it does have a top liner that was installed in the late 1980s. During excavation, the landfill gas collection system was monitored and gas detections were below regulatory limits. The soil was also tested and we found three areas of soil contamination. Two areas were low in contamination and were dug up and used as daily cover. The third site is a little different and the division needs to further characterize the soil. If it is low in contamination, it will be disposed of at Cedar Hills. If it is more contaminated, it will be treated like a hazardous waste and disposed at a hazardous waste facility.

Landfill Gas Pipeline Update

Annual pressure testing of the pipeline that conveys landfill gas between the North Flare Station and the Bio Energy Washington (BEW) plant will be conducted in November, which requires BEW to shut down. In 2016, a second, redundant pipeline will be added. A request for budget is in to the King County Council and the division is optimistic it will be approved. The new pipeline would add redundancy so that when the pipeline is tested the entire system won't have to totally shut down. A consultant has been hired to assist with this project and the preliminary design work is in progress. Before a new pipeline is constructed, an environmental review process will be completed. The division will have a better idea of the pipeline route and construction schedule once the environmental review process is completed. This process is expected to begin in early 2016, and information will be sent out. Please sign-in so we can keep you informed.

Noise Studies

As was reported at the last meeting, the division hired a consultant to do follow-up work on the 2012 Noise Study to differentiate between background noise and landfill noise. Understanding the results was challenging so we did another round of sampling at multiple locations around the perimeter of the landfill. What we found is noise emissions from active operations don't exceed limitations during the day or at night except at one location near the site entrance. That noise is from division trucks leaving the site between 6 and 7 a.m. We are exploring ways to reduce that noise. There is also a slight exceedance at BEW near the site entrance. We're working with BEW to clarify this data.

The preliminary results from the noise study are posted on the division's website.

Solid Waste Division

Groundwater Quality

Every quarter, SWD collects samples from 48 groundwater wells located throughout the landfill and tests the water quality in accordance with requirements. Once a year, SWD also collects samples from drinking water wells in the area surrounding the landfill. Results from the most recent sampling indicate there are no exceedances of standards or significant changes in groundwater. Those results are posted online.

“Overarching” Project (Environmental Control Systems Modification Project)

There have been many environmental controls installed at the landfill since the early to mid-1980s, and we continued to evaluate these systems to determine if they are working as expected and if we should make any changes. These systems include landfill gas, leachate, stormwater, and groundwater.

Our first focus on this project was on the landfill gas controls system. The pressure relief valve at the North Flare Station was installed in May 2015. On occasion, BEW needs to shut down because of power outages or other issues. If there’s high pressure, the valve helps relieve pressure and helps us restart the flares more efficiently after a sudden interruption of landfill gas processing due to a power outage or other reasons.

The division’s consultant analyzed three years’ worth of landfill gas monitoring data from more than 600 wells across the landfill. These wells extract gas vertically and horizontally. At a number of those locations we found we were overdrawing air into the system. This is not a good thing for a number of reasons, but mostly because BEW wants gas not air. It can also be bad to have too much oxygen in a landfill. As garbage ages it produces less landfill gas, so if you continue to draw at the same level you begin to pull in more air. We’re looking at steps we can take to make sure we get gas without drawing too hard.

The North Flare Station was also tested, and our goal is to operate the flares as little as possible. There are occasions where we do need to burn gas and we want to make sure we burn it completely. Recent tests indicate it is operating efficiently and within regulatory requirements.

Collecting groundwater and other subsurface data was conducted in May and September, but all data collection is not completed yet. Data is being collected from a small “perched zone” which is like a puddle of groundwater beneath the landfill. The perched zone is shallow and above the regional aquifer tapped by drinking water wells, but we do have some concerns so we are analyzing that.

Solid Waste Division

Site Development Plan

Since 2010, tonnage has been increasing for several different reasons. From 2008-10 tonnage declined, but the economy is coming back, Seattle closed its Wallingford station for renovation so we saw that tonnage coming into our system, and with the excavation of the SSWA we've moved some of that garbage into the landfill. We've signed agreements with 32 cities in King County guaranteeing disposal services through 2040. Because of these things we are revisiting the 2010 Site Development Plan to see if changes can or should be made.

In that plan, the division did not choose the maximum capacity alternative for landfill development and instead chose a mid-range alternative. We've hired a consultant to look at site development alternatives and we expect to have a shortlist of alternatives at the end of this year. In early 2016, we expect to begin an environmental review process that will involve public meetings and a public comment period. Landfill neighbors will be notified about these meetings and are encouraged to attend and make comments.

Operational Activities

(Bill Berni)

After discussions, it was decided not to grade the East Gravel Road, also known as the Perimeter Road. Instead we removed some ruts and one small boulder.

We also completed our annual vegetation removal and maintenance work.

The annual landfill tour will be held Oct. 17, and 36 people have signed up, including about 18 girl scouts.

After hearing neighbor concerns about speeding on Cedar Grove Road, the division worked with King County Roads Division to place a speed trailer on the road. The trailer is on the road one week a month. We've also written letters to garbage haulers asking them to inform their drivers of the speed limits. The local Sheriff's precinct encourages neighbors to call in their concerns about speeding by using the number 206-477-6446.

Another neighbor contacted the division about track out debris on Cedar Grove Road and the shoulder of the road. We've installed a new wheel wash and reminded our truck drivers to use it. We also reached out to five trucking companies along Cedar Grove Road, told them of the neighbor's concern, and asked them to take action to control track out. The division also volunteers its street sweeper to clean the shoulders once a month. Neighbors have said there has been an improvement.

Solid Waste Division

At the next meeting we will discuss an upcoming pilot project about using compressed natural gas (CNG) on division vehicles.

In response to questions from participants, King County Solid Waste Division staff provided the following information:

- The previous Interlocal Agreements with the cities required the division to provide disposal service through 2028; the current Interlocal Agreements go through 2040. The division is making capital improvements to the transfer system, and we cash-fund the landfill but we have debt financing for the transfer system. To get a reasonable rate on debt financing, we needed long term guarantees of the waste stream. There are different types of alternatives of how to provide disposal service, such as exporting the waste out of the county on a train, and we're looking at whether the landfill is the right option or not. Current estimates show that the landfill will reach the capacity in 2027, so we need to identify some choices for 2027-2040. In the 2010 Site Development Plan, we noted there was the ability to have more capacity at Cedar Hills Regional Landfill.
- The division is not looking at any development alternatives that will encroach on the buffer.
- Garbage excavated from the South Solid Waste Area (SSWA) is brought to the disposal area of the landfill and some of the dirt is being used for daily cover. When that area is fully excavated, we will move the waste- and stormwater ponds there. Because this area is under the BPA power lines, it makes sense to put the ponds there.
- Trichloroethylene (TCE) is the primary contaminant found in the soil tested from the SSWA. There are also some other volatile organics. Solid waste standards of the 1960s, when the garbage was originally buried, are not what they are now, so to be safe we used a testing pattern on the soil in the SSWA.
- Using the flares at the North Flare Station is a last resort. We would prefer the gas to go to BEW because the gas is a renewable energy source, reduces greenhouse gas emissions, and is a revenue source for the division. But sometimes the system needs to go down for maintenance or because of outages so having the flares as a backup is vital. The intent is to use the flares as infrequently as possible.

Solid Waste Division

- The perched zone contains some organics, metals, and some arsenic, which is fairly common in groundwater in Western Washington, but we're trying to see if that's related to the landfill. There are some elevated concentrations but there are no exceedances of the groundwater quality standards. There are no impacts in the regional aquifer.
- The perched zone is about 120-feet deep.
- There has been some work on gas collection lines in Area 7, which should be wrapped up shortly. Neighbors are encouraged to call Puget Sound Clean Air Agency (PSCAA) to report odor complaints, and they should also call the division so an employee can investigate odors. Our telephone line is monitored 24-hours day. A division supervisor will return calls 24/7 and contact the on-duty security guard after hours to investigate odor complaints. If needed, the security guard can go offsite to investigate odors. The security guard reports findings to the supervisor who can call in additional staff if needed. The supervisor then reports back to the neighbor with the findings of the investigation.
- Following completion of the design phase for the new redundant landfill gas pipeline, an environmental review process will be conducted under the State Environmental Policy Act (SEPA).
- The Hobart Closed Landfill is located on Issaquah-Hobart Road, about three miles before the Cedar River on the west side. It was closed in 1994 and at the present time it's capped and is being monitored. There is a model airplane club that flies there, they are insured and log their operations very carefully and operate under noise requirements. Just like at Cedar Hills, monitoring systems were added at the Hobart site in 1994 and we are looking at it. There are no significant changes in use and we monitor the cover, which is three feet deep. There are also pipes there. There are no future plans for the site.

Bio Energy Washington (BEW) Plant Update **Plant Operations**

(Kevin Singer)

Kevin Singer, the new plant manager for BEW, explained his past experience as a chemical engineer and manufacturer with various companies across the U.S. He also explained the BEW plant, which is relatively small with a little more than a dozen people proactively working to keep the plant operating efficiently. The plant is staffed 24 hours a day, 7 days a week, 365 days a year. The plant has two lead technicians who report to Kevin and alert him of potential issues.

Solid Waste Division

Singer said he has three cornerstones of success – making sure everyone goes home safely, being good environmental neighbors and community members, and operational excellence. Since Singer began his duties in July, there have been no injuries, no emission exceedances, and there have been good conversations about continuous improvement.

There are no planned upcoming major projects, plans for expansion, or changes. There will be some maintenance activities, but in general operations will continue normally.

As far as noise monitoring, BEW continually monitors sound at the east and west ends of the site, and every Tuesday a BEW employee uses a portable noise monitor to verify sound readings and where noise is coming from. There are also weekly inspections of the facility.

Singer informed neighbors about the BEW hotline that he checks every day. That number is: 425-392-3918.

In response to questions from participants, BEW provided the following information:

- BEW is working with the Solid Waste Division on reviewing the findings from the recent noise study.
- The more nitrogen pulled into the system the harder it is to recover quality gas. The plant is currently recovering enough gas to power 36,000 homes each year. BEW and the Solid Waste Division work together to ensure quality gas is being sent to BEW.