



# Cedar Hills Regional Landfill Community Meeting Notes May 5, 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
- Toraj Ghofrani, Engineer III
- Zahid Khan, Centralized Project Management Managing Engineer
- Kevin Kiernan, Assistant Division Director
- Matt Manguso, Communications Specialist II
- Polly Young, Project/Program Manager III

### ***Other King County staff***

- Polly Davis, Facilitator, Executive Services
- Yolanda Pon, Health and Environmental Investigator II, Public Health

### ***Bio Energy Washington (BEW) staff***

- Don LeMaster, BEW Plant Manager

### ***Interested parties***

- |                 |                  |                 |
|-----------------|------------------|-----------------|
| • Debi Eberle   | • Matt Hunkovic  | • Sean Kronberg |
| • Pete Eberle   | • Edie Jorgensen |                 |
| • Glenn Huffman | • David Wood     |                 |

## **General Updates**

(Kevin Kiernan)

Kevin Kiernan began the meeting by introducing King County Solid Waste Division employees and Yolanda Pon from Public Health, and he thanked Polly Davis for acting as facilitator during this meeting. Kathy Hashagen, who normally facilitates the community meetings, could not attend this meeting but will return as facilitator in the future. Kiernan also introduced Glenn Huffman, battalion chief from Eastside Fire and Rescue, and thanked him for attending the meeting.

Kiernan then informed those in attendance about the new number landfill neighbors should call to report a landfill concern – 206-477-4466. From 8:30 a.m. to 4:30 p.m., Monday through Friday, the number is answered by the Solid Waste Division’s (SWD) Customer Service Unit.

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From 4:30 p.m. to 8:30 a.m. calls are answered by the King County Roads Division. After hours, weekends, and holidays, neighbors can select an option to be connected to the King County Roads Division. The number should be used 24-hours a day, seven days a week, 365 days a year. It is especially important to use this number because that is how SWD logs and documents calls. This information was mailed to neighbors in March.

In response to a neighbor's concern, Kiernan explained meeting notes are not a verbatim transcript, but rather intended to capture the general content of the meeting. Notes will be posted on the division's website.

## **Construction and Environmental Monitoring Activities** (Kevin Kiernan)

### **Area 7 Side Slopes Final Cover**

Standard practice is to put final cover on the side slopes of areas that have reached final grade, and this work will be done on Area 7. The area is on the southwest side of the landfill and is the one currently receiving garbage. The project includes adding a final cover over a 7-acre section on the west and south slopes of the area, as well as installing stormwater and gas collection pipes. This process is expected to take four to five months. Neighbors who live on the west side of the landfill may hear construction noise during this process, but all work will be conducted during normal operations hours. The division does not expect any traffic impacts to occur.

### **South Solid Waste Area**

The South Solid Waste Area will be excavated. Based on preliminary testing, this area contains a significant amount of dirt. Dirt will be moved to Areas 5 and 6. Garbage from the South Solid Waste Area will be relocated to Area 7. As excavation continues, SWD will determine whether anything can be recycled. This is also known as "landfill mining." To help with excavation, the road leading to the area will be reconstructed. Work will be conducted from 7 a.m. to 6 p.m. and SWD will comply with the King County Noise Ordinance. The project is expected to take a year to complete.

### **Landfill Gas Pipeline Updates**

SWD continues to monitor the landfill gas collection system and its associated pipelines to ensure things are operating safely and efficiently. Above-ground sections were buried, an emergency shut-off valve has been installed, and SWD continues to conduct routine flare maintenance.

The design for a pressure-relief valve has been completed. The purpose of the valve is to help restart the flares more efficiently should they shut down due to excess pressure in the system or sudden interruption of the landfill gas processing due to a power outage. Installation of the valve is underway and should be completed in June 2015.

In the long-term, SWD continues to evaluate the landfill gas collection system. Currently, the landfill is expected to be in operation until at least the late 2020s, but federal regulations require

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SWD to monitor and manage any closed landfill for 30 years or until it is stable. At the October 2014 community meeting, SWD discussed plans for replacing the pipeline in 2015. That work continues but has been delayed as SWD evaluates alternative pipeline routes and approaches. Any changes or replacements will need to go through the permitting process, and SWD expects the work to be done by the end of 2016. The pipeline will be built to ensure it is operational for at least 30 years.

### **Noise Studies**

After the results of a 2012 “Detailed Perimeter Noise Study at Cedar Hills Regional Landfill” were released, SWD realized it needed to supplement that study to differentiate background or ambient noises on the southern end of the landfill from landfill related noise sources. Modeling for this supplemental study has been completed by the division’s noise consultant. The consultants who performed the study found there were no daytime noise exceedances. The study did record elevated noise levels in the early mornings and late evenings. The noise appears to be coming from offsite, mostly from commuters leaving for work in the morning and SWD shop employees changing shifts in the late evenings. The consultant’s study is in final production and should be posted on the division’s website by the end of June 2015. The consultant is likely to recommend more modeling.

### **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 or drinking water quality. Those results are posted online in the “Cedar Hills Regional Landfill Annual Report.”

### **“Overarching” Project (Environmental Control Systems Modification Project)**

SWD has installed many environmental control systems during the past 30 years, and it is important to look at how these systems work both individually and collectively. The “Overarching” Project is taking longer than anticipated because of the large amount of information that needs to be collected. It is equally important for the consultant to collect data during various times of the year to gain a more complete picture of how well the systems are operating and capture seasonal variations. This has delayed the project, but SWD is anticipating final recommendations to come in 2016 at which point it can determine what needs to be modified to ensure SWD continues to meet regulatory requirements. The first round of sampling is scheduled for mid-May 2015.

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## Site Development Plan

SWD is currently operating under a site development plan that was adopted in 2010. When the plan was adopted, SWD did not choose the “maximum capacity alternative” because it was unsure of how the waste stream would change in the future and the economics of landfill development. Since 2010, several factors have led to an increase in tonnage, including a better economy, the closure of the North Seattle Transfer Station for reconstruction, and the signing of new Interlocal Agreements with most cities in King County that requires SWD to manage their waste streams until 2040. These factors have caused SWD to revisit the plan and see if changes can or should be made. SWD has advertised for a consultant to conduct the study and received one proposal that is currently being evaluated. The division anticipates a draft of preliminary site alternatives to be ready by the end of 2015. Any adjustments to the adopted plan will require SWD to go through a State Environmental Policy Act (SEPA) review, which involves public meetings and a public comment period. Landfill neighbors will be notified of these meetings and are encouraged to attend and make comments.

## Operational Activities

(Bill Berni)

SWD Operations supervisors, as well as some members from King County Public Health, have been trained in odor detection.

A new King County fire station opened in May Valley near the landfill, and SWD has been working to strengthen the relationship between the two entities.

The East Gravel Road needs to be re-graded and re-graveled because of ruts in the road that could damage SWD vehicles. That work will be conducted from 9 a.m. to 5 p.m. on weekdays only. Work is expected to begin July 1, weather permitting.

SWD will perform routine vegetative maintenance, including mowing, during the summer, as well as removing vegetation that is growing near the boundary lines and onto the service road. The work will be conducted during reasonable hours and SWD will notify neighbors before beginning the work.

At the October 2014 meeting, one neighbor asked why certain trees had been removed in the power line easement. SWD contacted BPA, which owns and maintains the power lines, who explained that trees cannot be located in the easement because of safety issues. Also at that meeting a neighbor asked SWD to find the source of excessive truck noise in hopes of reducing it. Most of that noise was because of work being conducted in Areas 5 and 6, which has been completed.

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SWD Operations Supervisor Scott Barden told those in attendance that SWD's Earth Day Landfill Tour on April 25 was a big success with 36 enthusiastic participants taking the tour, including a Boy Scout Troop and local firefighters. SWD is always ready to give landfill tours anytime of the year, and encourages neighbors and the public to call SWD and arrange a time to visit the landfill and experience operations firsthand.

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

- There is an electrical easement where the BEW pipeline meets the Williams pipeline. The holder of the easement has the right to maintain as needed.
- Based on current projections, the landfill is scheduled to operate until about 2028. The current site development plan calls for construction of Area 8. The King County Council has asked the division to look at whether the life of the landfill could be extended beyond 2028. There are a number of factors that help SWD determine when the landfill will reach capacity, and that end-date can change.
- Landfill closure does not mean operations will end in 2028 because fully closing the landfill can take up to two years. In addition, SWD must monitor the landfill for at least 30 years or until it is stable, so activity will continue at the landfill until at least 30 years after it stops accepting waste.
- Current regulations require SWD to plan for and fund monitoring for at least 30 years or until the landfill is stable. How long SWD must monitor the landfill depends on the landfill, but SWD has set aside enough money to monitor for at least 30 years. For example, the division continues to monitor a landfill in Kirkland that closed in 1967.
- SWD is collecting more data for the "Overarching Project" than originally anticipated. This has affected the original schedule. When preparing a project it is necessary to analyze forecasts, and the more data that is collected the more SWD learns. 2016-2017 is a realistic timeframe for SWD to complete this project because it wants to make sure it has enough data and a robust forecast to make the best decisions.
- There were no groundwater quality exceedances. There was some indication of turbid, or cloudy, surface water, but that is most likely due to stockpile runoff.

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- One of the determinants of the noise study was that evening noise stemmed from traffic noise, not from SWD operations because SWD does not have traffic at night. Noise levels monitored during the morning were recorded before SWD begins operations, usually 7-7:15 a.m., so it was attributed to morning commuters. Further detail can be found in the actual report, which will be on the SWD website by the end of June 2015.
- SWD's consultant evaluated the landfill gas pipeline and recommended it be buried. SWD complied with those recommendations. The pipe has been rigorously pressure-tested and SWD will test it annually. Landfill employees routinely drive the length of the pipeline and inspect the header-line and check for odors and issues. SWD is confident in the capability of the pipeline.
- Current projections are that the landfill will reach capacity in 2028. Landfill "closure" is different and is a term used by regulators. Landfill closure includes about two years of activities to close the landfill. After closure there will be at least 30 years of post-closure activity. The new site development plan could change that with new designs and projections.

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

(Don LeMaster)

In the past six months, BEW's focus has been on continuous performance improvement and addressing normal operational challenges.

In the past six months:

- Landfill gas consumed: 2.5 billion cubic feet of landfill gas at 50 percent methane
- Renewable natural gas produced: 0.80 billion cubic feet at 98 percent methane
- Plant up-time: 92.8 percent, a 3 percent increase

The amount of methane produced in the past six months was enough to supply approximately 21,000 homes for six months. In addition to delivering methane to the Williams Pipeline, the plant also used fuel gas (partially purified landfill gas) to generate about 15.8 megawatt hours of electricity in the past six months. This power amounts to approximately one-half of the power that the BEW plant needs to operate and is equivalent to the power required for about 2,800 homes.

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

- BEW's targeted maximum methane output is dependent on many factors, including how much nitrogen is being collected along with landfill gas. BEW is working with SWD to

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reduce the amount of nitrogen collected. The recent increases in methane gas output are attributed to the plant operating more efficiently and having fewer breakdowns.

- Barometric pressure can affect nitrogen levels coming into the BEW plant. Generally, high barometric pressure (sunny days) results in higher levels of nitrogen coming into the plant, whereas low barometric pressures (rainy days) helps increase the quality of the gas coming to the plant. SWD would rather have the system gas collection system “pull” harder to prevent any gas from escaping the landfill, but that results in more air being mixed with landfill gas.
- Kevin Kiernan noted that the primary purpose of the gas collection system is to provide environmental control.
- The amount of landfill gas consumed by BEW was 2.5 billion cubic feet in the last six months and the amount of methane produced was .80 billion cubic feet. Of the landfill gas consumed by BEW, approximately one-third ends up in the natural gas pipeline. Some of the landfill gas is processed through various media and burned in the thermal oxidizer at 1800 degrees Fahrenheit. Approximately 35 percent of the landfill gas is carbon dioxide.\* Poor quality gas is burned off.
- BEW does not currently track all waste streams, but it can provide further breakdown of the information at future meetings.

*\*Note: It was mistakenly said at the meeting that “about half of landfill gas is carbon dioxide.”*