



# **Cedar Hills Regional Landfill Community Meeting Notes**

## **April 24, 2013**

**King County Library Service Center - 960 Newport Way NW, Issaquah**

### **In Attendance**

#### ***King County Solid Waste Division staff***

- Laura Belt, Landfill Engineer
- Kathy Hashagen, Facilitator
- Lisa Huntley, Program Manager
- Victor Okereke, Engineering Services Manager
- Dean Voelker, Landfill Supervisor
- Polly Young, Communications Planner

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

- Ron Earnest, BEW Plant Manager

#### ***Interested Parties***

- |                   |                  |                           |
|-------------------|------------------|---------------------------|
| • Marissa Alegria | • Cliff Hansen   | • Rick Nelson             |
| • Bill Allison    | • Lynn Hansen    | • Dian and Dave Prochanka |
| • Peter Clark     | • Mark Heinzen   | • Sharon Woodruff         |
| • Ed Davis        | • Edie Jorgensen |                           |
| • Karen Dawson    | • Sean Kronberg  |                           |
| • Leo Finnegan    | • Bill Lasby     |                           |

### **Environmental Monitoring**

(Victor Okereke)

#### ***Landfill Gas Management***

Solid Waste Division (division) staff informed neighbors at the October 2011 community meeting that landfill gas detections exceeded the regulatory limits at two probes on the west side of the landfill. The division addressed the situation in two ways: 1) we made adjustments to how we operate the landfill gas system, and 2) we installed seven landfill gas extraction wells to prevent gas from escaping the site. Since those measures were implemented, no exceedances have been detected.

Since the October 2012 community meeting, the division has installed six new landfill gas observation probes. These probes help us evaluate how well the landfill gas extraction wells are working. We adjust the wells and then take measurements in those observation probes.

The testing of these new probes involves collecting a lot of data, and then analyzing the data. We expect to produce a report on the findings by the end of this year. In the meantime, we continue to monitor the system to make sure it is operating as well as planned.

The landfill gas control has two systems:

1. Extraction wells - are located all over the site; they prevent gas from leaving the property
2. Probes – are also located around the site; they detect the movement of gas.

### **Noise Controls**

In 2010, due to neighbor concerns, the division did a noise study; that study is posted on the division's website. The 2010 study was inconclusive so in 2012 the division did another noise study.

For the 2012 noise study, noise monitors were located near suspected sources of noise: the north flare station, the BEW plant, and the property line adjacent to Cedar Grove Composting. Additionally, noise was monitored at five locations around the site at the property line.

The major findings of the 2012 noise study show:

- The noise level at the north flare station, in the northwest area of the landfill did not exceed the regulatory limits.
- In the southwest and southeast area of the landfill, noise exceeded the King County regulatory limits during the night.
- In general, noise levels during the day were within noise limits, but not so during the night. The division believes the reason for nighttime exceedances is due to background noise. It is difficult to determine if the noise is caused by trucks on Cedar Grove Road or on the landfill. The division will focus on landfill noise sources and determine if there are opportunities to meet noise requirements. Due to resource constraints, the division will be unable to accomplish this task until early 2014.
- At the north flare station, the division has insulated a number of pipes and has received good feedback from the neighbors that the noise level has been reduced.

*Note: Since the April 24, 2013 meeting, the results of the 2012 noise study were posted on the division's website, <http://your.kingcounty.gov/solidwaste/facilities/documents/CHRLF-noise-level-study-perimeter-2012-12.pdf>.*

### **Groundwater and Groundwater Quality**

Groundwater quality is measured against two sets of standards: Washington state groundwater criteria and federal drinking water standards.

The division monitors groundwater in the regional aquifer for regulatory compliance. The division has seen no significant changes in groundwater quality during our monitoring

history. Arsenic levels exceeded state limits, but are below federal drinking water standards. Arsenic is a naturally occurring substance.

On the landfill property, groundwater flows in a south to north/northeast direction. The division measures the quality of groundwater that enters and leaves the landfill property. The goal is to ensure that the quality of groundwater leaving the site is compliant with regulatory requirements.

Queen City Farms, to the south of the landfill property, is a Superfund contaminated site. Water coming onto the landfill property from the Queen City Farms property is not as clean as we would like. The Environmental Protection Agency (EPA) is responsible for the regulatory oversight of the remediation done on the Queen City Farms site.

### ***“Overarching” Environmental Controls Project***

The division is interested in evaluating all of the environmental control systems at the landfill to determine if they are working as they are supposed to be working. These systems include landfill gas, leachate and groundwater. These environmental control systems are evaluated on an ongoing basis, but this time, they will all be studied together under one umbrella. The division plans to hire a consultant by the end of 2013 to do this work. Toraj Ghofrani, a recently hired Engineer, will manage this project.

## **Construction Activities**

(Victor Okereke)

### ***Force Main***

At the October 2012 community meeting, division staff indicated that there would be work done on the force main (the waste water pipe that carries leachate away from the site to the Renton Treatment Facility). However, that project has been suspended and is being reviewed so no force main related construction will occur on Cedar Grove Road this year.

### ***Interim Closure***

When areas of the landfill fill up, they are gradually closed; this is called “interim” closure. This involves placing soil, plastic liners and hydro seed over an area. The division is currently landfilling in Area 7, but we’ll begin interim closure of the Area this summer.

### ***Landfill Area 8***

The next major construction project at the landfill will be the development of Area 8, which was approved by the King County Council in 2010. Area 8 will be developed at the south end of the site. We are now in the planning phase and are in the process of hiring a consultant. Construction is likely to start in 2014 with the removal of refuse from the south solid waste area and burying it in a lined landfill area. We expect to complete all construction activities for Area 8 by 2017 and start using the area in 2018.

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

- The division tests groundwater at different depths. The most shallow groundwater wells are at about 50-75 feet, and the regional aquifer is at about 150-250 feet.

- For questions about the Queen City Farms Superfund site, please contact EPA Project Manager Jannine Jennings at 206-553-2724 or [Jennings.jannine@epa.gov](mailto:Jennings.jannine@epa.gov).
- The force main pipes are in good condition. The project that was suspended would have installed additional cleanout access points for maintenance purposes.
- Removal of garbage from the south solid waste area in preparation for the construction of Area 8 may generate some odor. However, the division has experience removing garbage and will apply odor controls.
- New refuse will not be put in the south solid waste area after the old refuse has been removed. Some ponds might be put in that area, but not refuse.

## **Operational Activities**

(Dean Voelker)

### ***Annual Maintenance***

This summer, crews will again be doing maintenance work on the perimeter of the landfill. The roads are in bad shape and we want to make sure water runoff goes where it's supposed to go. The monitoring probes also need to be accessible by our crew vehicles. In addition to the road maintenance, crews will also do vegetation control and brush cutting.

Last year, when we did brush cutting and fence repair work along the fence line, we accidentally cut a neighbor's brush. We went back and replanted the neighbor's plants. We also made it clear to the crew not to go onto neighbors' property when doing maintenance along the fence line. If a neighbor has questions, concerns or requests about maintenance near the fence line of their property, they should call the Main Office at 206-296-4490.

### ***Earth Day Landfill Tour***

On Saturday, April 27, at 10 a.m., the division will be hosting a landfill tour as part of the county's earth day celebration. If anyone is interested in a tour, please call the Main Office to reserve a spot.

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

- A tour of the Bio Energy Washington (BEW) plant is not planned as part of the landfill tour scheduled for April 27. Due to insurance issues, BEW does not allow non-trained people in the plant. Small groups can only be accommodated in the control room, but BEW does not offer plant tours.
- There are several types of ponds at the landfill: storm water, contaminated storm water, and leachate. When leachate ponds are aerated, a small amount of gas comes off of the ponds, but not enough to collect. Aeration helps reduce odors that would result if the ponds were stagnant.
- The division and the Public Health representative attending the meeting (Bill Lasby) were not aware of problems with well drinking water around the landfill. Division staff was asked to provide the name of a King County staff person who could provide information on testing of water quality in Issaquah Creek and the Cedar River.

**Note:** King County Department of Natural Resources and Parks Water and Lands Division staff persons who can provide information on water quality testing in Issaquah Creek and Cedar River are: Debra Bouchard, Water Quality Planner, (206-263-6343; [debra.bouchard@kingcounty.gov](mailto:debra.bouchard@kingcounty.gov)) and Sally Abella, Senior Engineer (206- 296-8382; [sally.abella@kingcounty.gov](mailto:sally.abella@kingcounty.gov)) in the Routine Stream Monitoring Program, website: <http://green.kingcounty.gov/WLR/Waterres/StreamsData/Default.aspx>

- The location of potential noise sources around the landfill that were evaluated in the 2012 noise study were:
  - To the southwest: Cedar Grove Composting
  - To the north: King County Solid Waste Division's north flare station
  - To the southeast: BEW and Cedar Grove Road
- The 2010 noise study was inconclusive, but the 2012 study yielded findings that showed there are exceedances of noise limits at night. The division has not been able to determine the source of the nighttime noise. Some early evening noise (prior to 9 p.m.) was tied to division trucks, but there was also noise not associated with division trucks that could possibly have been deliveries to BEW, trucks on Cedar Grove Road, or equipment at Cedar Grove Composting. Laura Belt is the Project Manager for the noise study.
- The division does not have plans to try to decrease arsenic levels in the groundwater leaving the landfill site because the arsenic levels entering the site are the same as the arsenic levels leaving the site and arsenic occurs naturally in groundwater.
- Groundwater is on the landfill property for a long time and during that time the contaminants naturally degrades. The groundwater leaving the landfill site is better than when it enters the site.
- After the gas extraction wells have been in place for a year, the division will report on the effectiveness of the new extraction wells and observation probes. If those extraction wells are not working well, we will recommend any needed adjustments.
- Pertaining to managing landfill gas, the division addressed the most critical issues first to ensure gas does not leave the landfill site. This has been done by installing the new wells and observation probes. The "Overarching" Environmental Controls Project will also look at these issues and through that effort we may get information about the cause of the gas migration.
- A Request for Proposals for the "overarching" project is currently being advertised. The division expects to know more in about a year after the contract has been in place.
- The "overarching" project will look at all landfill management systems: leachate extraction and conveyance, landfill gas extraction and conveyance, and groundwater monitoring wells and probes.

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

(Ron Earnest)

BEW Plant Manager Ron Earnest reported the following:

- As of September 2012, the plant achieved full production with none of the north flare station flares operating.

- In November 2012, BEW completed the installation of a water loop heating system which eliminated 5 to 10 cooling fans which has reduced the noise produced by the heat exchangers.
- In Feb. 2013, BEW completed stack source testing, which showed the plant was operating at one tenth of permissible EPA emissions limits.
- In April 2013 new software was installed for the hybrid generators that run the diesel engines. The plant currently runs on a mix of tail gas (gas that remains after processing is complete) and diesel to create electricity. The plant is now running on about one third less fuel.
- Since August 2012, the plant has consumed 3.3 billion cubic feet of landfill gas and delivered 1.9 billion cubic feet to the pipeline.
- In the last 8 ½ months, the plant has generated enough natural gas to meet the needs of 382 households which reduced the amount of energy required from the grid by 16 million kilowatt hours.
- From Nov. 2012 through April 2013, the plant up time was 95 percent. So far in April 2013, the plant up time has been at 97 percent.

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

- The 2 billion cubic feet of landfill gas that was not delivered to the pipeline since August 2012 was used to run diesel engines or was burned in the thermal oxidizer.
- This BEW plant is unique in its (large) size, as the plant handles up to 10,000 cubic feet per minute. Other state organizations have expressed an interest in what BEW is doing at this plant and have contacted BEW for more information.
- The natural gas pipeline is a 24-inch diameter pipe that starts at the north part of the landfill site and runs down the length of the landfill in a south/southeast direction into the BEW plant. The exit pipe goes from the BEW plant to the Williams pipeline, which is located on 228<sup>th</sup> Avenue SE.
- BEW has received some noise complaints. Noise occurred as a result of the plant's shipping and receiving doors being left open at night. Also, the plant recently had to be brought up manually, which is unusual, and that caused the flare to come on and off which resulted in noise and noise complaints. BEW has changed its operations so those types of noise producing events do not occur again.
- BEW still has noise monitoring equipment at the western edge of the plant.

Meeting adjourned.