Prepared By: EA Engineering, Science, and Technology, Inc., PBC

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GUDE LANDFILL REMEDIATION

GLCC/DEP MEETING NO. 37

DATE: November 12, 2015 TIME: 7:30 PM to 9:00 PM

LOCATION: Montgomery County Transfer Station

ATTENDANCE:

<u>Name</u>	Organization	Designation
Laszlo Harsanyi	Gude Landfill Concerned Citizens (GLCC)	Member
Dave Peterson	Gude Landfill Concerned Citizens (GLCC)	Member
Nick Radonic	Gude Landfill Concerned Citizens (GLCC)	Member
Julia Tillery	Gude Landfill Concerned Citizens (GLCC)	Member
George Wolohojian	Gude Landfill Concerned Citizens (GLCC)	Member
Peter Karasik	Montgomery County Dept. of Env. Protection (DEP)	Section Chief
Dan Rogers	Montgomery County Dept. of Env. Protection (DEP)	Engineer I
Mark Gutberlet	EA Engineering, Science, and Technology, Inc., PBC (EA)	DEP Consultant

The Meeting Agenda is included as Attachment 1.

Contact information for attendees is included as Attachment 2.

Chronology of Closed Action and Follow-up Items is included as Attachment 3.

Other Attachments are referenced within the text.

MINUTES:

- **1.** Mr. Peter Karasik of DEP requested approval of the minutes from GLCC/DEP Meeting No. 36. GLCC approved the minutes.
- 2. Mr. Laszlo Harsanyi of GLCC asked that meeting minutes be distributed to meeting attendees shortly after the meeting instead of waiting until the next meeting. DEP agreed to this procedure.
- 3. Mr. Mark Gutberlet of EA provided updates on revised ACM due to MDE in February 2016:
 - a. Metals Exceedances DEP completed Fall 2015 sampling in August using low-flow methodology for the second sampling event. Samples have been analyzed and data received. There were several MCL exceedances for metals. The full report will be complete by the end of January 2016 and posted to the Gude Landfill Remediation website.

DEP's consultant re-developed 8 groundwater monitoring wells in September/October 2015 to remove sediment from the bottom of the wells with the goal of being able to obtain future samples more representative of actual groundwater quality at the site. The wells have not been sampled since they have been re-developed.

Ms. Julia Tillery of GLCC asked how many metals exceedances there were. Mr. Gutberlet stated there were three. Mr. Harsanyi asked if low flow sampling will be performed for future sampling events and Mr. Gutberlet said it will. Mr. Karasik stated that metals will need to be addressed in the revised ACM. Mr. Dave Peterson of GLCC asked if enhanced bioremediation could start while

metals are continuing to be evaluated. Mr. Karasik and Mr. Gutberlet said that was unlikely because Maryland Department of the Environment (MDE) is unlikely to approve a portion of the ACM while another portion is still under review.

b. Waste Depth – DEP's consultant drilled through the landfill in September 2015 to identify the bottom of the waste and the groundwater elevation. Four borings were advanced through the waste and temporary piezometers were installed in those borings. The waste thickness ranged from approximately 25 to 55 feet with bottom elevations ranging from approximately 390 to 410 feet. Initial groundwater elevations measured right after drilling indicate that groundwater is below the waste mass at the four boring locations. The groundwater elevations will be measured monthly for approximately one year to evaluate the seasonal variability. Documentation of the drilling effort and interpretation of the results will be included in the revised ACM Report.

Mr. Harsanyi asked if contamination can migrate vertically in the location of the boring. Mr. Gutberlet described that the borings are double-cased, meaning that there are two solid casings (one inside another) placed in the boring and area between them is sealed to prevent any vertical flow of leachate. Mr. Nick Radonic of GLCC asked if the holes would be sealed when they are no longer needed and Mr. Karasik said they would.

There was discussion about the potential capping of the landfill and the potential effect that could have on MCL exceedances in the groundwater. Mr. Karasik and Mr. Gutberlet explained that capping would likely reduce rainwater infiltration through the waste and thus reduce leachate generation; however, the leachate could become more concentrated if infiltration is reduced. Therefore, capping the landfill may not meet the RAO of meeting MCLs in groundwater at the property boundary.

- c. Stormwater Evaluation DEP's consultant has completed an updated topographic survey of the landfill, with the exception of the elevations of some drainage structures that will be completed this week. They have also completed an evaluation of the infiltration capacity of the landfill cover soil in six locations across the landfill. This information will be used to delineate drainage areas, identify flow directions, estimate runoff and infiltration quantities, and identify areas that may need additional grading or other improvements. The information will also be used to quantify the potential benefits of capping the site, in terms of reduced infiltration and leachate generation.
 - Mr. Gutberlet stated that infiltration rates through the existing soil cover and a potential geomembrane cap will be estimated and compared. Mr. Karasik noted that the topographic survey will be used to evaluate where ponding is likely occurring on the landfill and DEP will continue to maintain the landfill cover and fill low spots with soil to promote surface drainage and minimize ponding.
- **4.** Mr. Karasik provided updates on the landfill gas to energy system and perimeter monitoring:
 - a. DEP's contractor who manages the landfill gas system is CB&I. There was a recent exceedance in landfill gas monitoring well W-05, which was the first exceedance in about 5 months. CB&I will rebalance the landfill gas extraction wellfield around W-05.
 - b. Landfill gas concentrations in monitoring wells W-26 and W-28 continue to exceed the lower explosive limit (LEL). CB&I is evaluating options to install a trench for landfill gas collection in that area.
 - c. Ms. Tillery noted that the landfill gas extraction wells seem to flood in the winter and asked if DEP could do anything to stop that from happening. Mr. Karasik stated that CB&I is prepared to pump out extraction wells if they become flooded, but when there is significant precipitation, it can infiltrate into the waste and the water can reduce the effectiveness of the gas extraction system.

- d. Ms. Tillery asked if capping can be evaluated and implemented sooner to reduce infiltration into the landfill, even in localized areas. Mr. Gutberlet stated that any work related to the ACM could not start until the ACM Report is completed and approved by MDE to avoid potential re-work along the northwest slope. He also stated that localized capping would have limited impact on rainwater infiltration. Mr. Karasik offered to more closely evaluate gas exceedances from recent years to see if some localized fixes can be implemented ahead of approval of the ACM.
- **5.** Mr. Dan Rogers of DEP provided an update on landfill maintenance activities:
 - a. DEP continues to fill in low areas on the cap and cut vegetation to promote positive drainage.
 - b. Five seeps were repaired in Spring 2015, as reported at the June 2015 GLCC meeting, and no new seeps have occurred since then.
 - c. DEP is keeping vegetation cleared around property line markers and is marking monuments with rebar and maintaining intermediate markers between monuments.
 - d. Mowing continues for access to monitoring wells and the landfill gas system.
 - e. DEP is planning for routine noxious weed control in 2016.
 - f. DEP repaired a washout on Incinerator Road.
 - g. DEP is evaluating improving access to some monitoring wells.
 - h. DEP is replacing locks on perimeter gates.
 - i. WSSC is repairing a water main and sanitary sewer north of the landfill.

Recently Closed Action and Follow-up Items

34-2 The County will evaluate making the GLCC remediation webpage more accessible from the County's website.

Status: Closed. The County revamped the website several months ago and access is okay.

Open Action and Follow-up Items

- 34-5 GLCC will discuss potential near-term landfill use options they would like the County to consider and communicate them with the County.
- 37-1 DEP will review the landfill gas exceedance data from the last few years and evaluate if some measure could be performed to minimize the likelihood of increased exceedances this year.
- 37-2 DEP will add updated information to the website, including recent GLCC/DEP Meeting Minutes and add dates to news items.

Tentative next meeting date of January 14, 2016 to discuss any updates.

The above summation is the writer's interpretation of the items discussed at the meeting. Comments involving differences in understanding of any of the meeting items will be received for a period of thirty (30) days from the date of these meeting minutes. Clarifications will be made, as deemed necessary. If no comments are received within the specified time period, the minutes will remain as written.