

GUDE LANDFILL REMEDIATION

GLCC/DEP MEETING NO. 22

DATE: May 17, 2012
TIME: 7:30 PM to 9:00 PM
LOCATION: Montgomery County Transfer Station

ATTENDANCE:

<u>Name</u>	<u>Organization</u>	<u>Designation</u>
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
Steve Lezinski	Montgomery County Dept. of Env. Protection (DEP)	Engineer III
Mark Gutberlet	EA Engineering, Science, and Technology, Inc.	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) Steve Lezinski of DEP requested approval of the minutes from GLCC/DEP Meeting No. 21. GLCC approved the minutes.
- 2) Steve Lezinski provided an update of the exchange of land between Montgomery County and the Maryland-National Capital Park and Planning Commission (M-NCPPC). EA's surveying subcontractor, CCJM, has placed survey markers, which will be field verified in the upcoming weeks. Appropriate documentation will then be prepared to finalize the land exchange.
- 3) Steve Lezinski stated that DEP submitted red-line comments to MDE on the Draft-Final version of the Consent Order on May 10, 2012. DEP included text regarding community engagement and land reuse at the request of GLCC (refer to Attachment 4). DEP provided a copy of the red-line comments to GLCC via e-mail. Dave Peterson of GLCC acknowledged that the document was received and included the text that GLCC had requested. Laszlo Harsanyi of GLCC stated that Keith Ligon of GLCC commented that the text was well-written.
- 4) Steve Lezinski described the content of the Assessment of Corrective Measures (ACM) Work Plan that was submitted to MDE on May 10, 2012 (refer to Attachment 5). A discussion of the ACM ensued.

- Dave Peterson asked if individual technologies or combined technologies would be evaluated. Mark Gutberlet of EA stated that individual and combined technologies would be evaluated.
 - Dave P. asked if the technologies to be evaluated during the ACM were those included in Table 1 of the Remediation Feasibility Memorandum prepared by EA. Mark G. said those technologies would be evaluated.
 - Dave P. asked if DEP/EA could prepare brief remediation technology workshops as part of the GLCC meetings where individual technologies could be described in more detail. Peter Karasik of DEP stated EA will research and provide case studies of the various technologies within the ACM. Peter K. also stated that DEP could provide workshops during the GLCC meetings.
 - Laszlo Harsanyi asked for information on the review process for ACM Report. Peter K. stated that EA would prepare a draft report and it would first be reviewed by DEP Operations Staff (Peter K. and Steve L.). The Report would then be reviewed by DEP Management Staff (Dan Locke and Bob Hoyt) and potentially other County government employees. GLCC would be involved in the review process through monthly GLCC/DEP meetings and have opportunities to comment on the ACM Report.
 - Steve L. stated that the ACM Report will include more detail of conceptual designs for select remediation alternatives.
- 5) Steve Lezinski stated that DEP is working with EA to refine the proposal to perform the ACM and develop the ACM Report. DEP will provide a copy of the proposal and scope of work once it is finalized.
- 6) Steve Lezinski and Peter Karasik provided copies of the NES Amendment No. 1 Fact Sheet (refer to Attachment 6) and the ACM Introduction Fact Sheet (refer to Attachment 7) for review and comment. Nick Radonic of GLCC and Dave Peterson offered to review the fact sheets in more detail after the meeting. Laszlo Harsanyi requested that DEP provide the fact sheets in Microsoft Word format so GLCC could comment electronically. Steve L. agreed to e-mail the fact sheets in Microsoft Word format. George Wolohojian of GLCC suggested adding a "next steps" section at the end of each fact sheet to present project sequence and schedule items as well as other administrative and political steps that are required to approve and implement the ACM. Steve L. concurred with this approach.
- 7) The meeting attendees discussed the potential timing and content of the next community meeting. After discussion, Nick Radonic agreed to reserve the meeting space at Candlewood Elementary School, pending availability. A meeting was discussed during the time period of September 10-21, 2012. DEP will check staff availability for that week. Suggestions for discussion at the meeting included:
- Julia Tillery of GLCC: Provide a quick summary of the landfill and purpose of the remediation project (most people are familiar with this).
 - Dave Peterson: Provide a handout with landfill and project background information to assist people that are not familiar with the project. General public health (risk) information

for residents and users of the M-NCPPC walking path in the right-of-way should be discussed.

- Nick Radonic: Discuss potential remediation options/technologies.
 - Laszlo Harsanyi: Provide the meeting agenda in the meeting announcement.
 - Steve Lezinski: Prepare the draft community presentation for review at the preceding e GLCC/DEP meeting.
- 8) Steve Lezinski noted that DEP continues to update the Landfill Remediation Webpage with new information for public access. The ACM Work Plan will be posted soon.
- 9) Steve Lezinski provided an update on Landfill operations:
- a) The Semi-annual groundwater and surface water monitoring was completed by the County in March 2012; the report will be posted on the remediation website around June 2012 upon submission to MDE.
 - b) Based on the most recent gas monitoring, there are no exceedances for landfill gas; the quarterly report will be sent to MDE by the end of April 2012.

Dave Peterson requested that DEP update the MCL exceedance map/plume map after the Spring 2012 groundwater and surface water monitoring data is available. Julia Tillery asked if there were any active seeps. Steve Lezinski stated the only active seep is the one near Crabbs Branch and the natural gas pipeline Right-of-Way (north by northwest portion of the site). DEP has installed trenches to promote seep flow back into the landfill, but due to saturated conditions of the subsurface, the trenches have not been completely effective. DEP will further evaluate the seep area utilizing their new on-call contractors and may consider active pumping in the area to control the seep.

Recently Closed Action and Follow-up Items

- 20-3 DEP will prepare a Fact Sheet for the NES Amendment No. 1 after MDE approval of the Report.
Status: DEP provided the draft fact sheet for review and will prepare the final version by the end of May. DEP provided the fact sheet to GLCC via email on May 31, 2012.
- 20-4 DEP will prepare a Fact Sheet to summarize the ACM process after MDE approval of the NES Amendment No.1 Report.
Status: DEP provided the draft fact sheet for review and will prepare the final version by the end of May. DEP provided the fact sheet to GLCC via email on May 31, 2012.

Open Action and Follow-up Items

- 16-2 DEP and EA will further evaluate end use options and present these to GLCC in a future monthly meeting.

Status: Open. This item will be addressed further during the ACM/Reuse evaluation process.

- 17-1 DEP will contact senior County representatives and stakeholders regarding their attendance at a future GLCC/DEP monthly meeting to discuss the County's decision making process for Landfill site reuse, potential County site reuse options and the integration and consideration of the Community's reuse options.

Status: Open. This item will be addressed further during the ACM/Reuse evaluation process.

- 18-1 Once the Landfill land reuse discussion is documented and agreed upon in a decision memo with the County Executive and/or other stakeholders, DEP will share the final findings of the agreed upon process with GLCC.

Status: Open. This item will be addressed further during the ACM/Reuse evaluation process.

- 20-5 DEP to coordinate with GLCC to organize a larger community meeting to present the accepted findings of the NES and introduce the ACM process. This will be initiated after MDE approval of the NES Amendment No.1 Report. GLCC/DEP will review dates for the larger community meeting. DEP will confirm dates with appropriate staff and consultants. GLCC/DEP will develop the agenda for the larger community meeting. GLCC suggested the following major topics: 1) review of the overall purpose and process for the project, 2) a status update on recent activities, 3) explain the next steps, and 4) discuss landfill re-use options. GLCC will secure meeting space. Potential meeting date for the period of September 10th thru September 21st 2012 will be confirmed.

Status: Open.

New Action and Follow-up Items

- 22-1 DEP to provide electronic copies in M.S. Word Format of the fact sheets via e-mail for GLCC comment.

Status: Open.

- 22-2 DEP to develop workshops (presentations) on the potential corrective measure alternatives for the next GLCC meeting.

Status: Open.

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.

**Gude Landfill Remediation
Gude Landfill Concerned Citizens
Monthly Meeting No. 22**

Meeting Agenda

- 1. Meeting Sign-In Sheet**
 - a. Please sign-in.

- 2. GLCC/DEP Meeting Minutes (Meeting No. 21)**
 - a. DEP to request review and acceptance.

- 3. Land Exchange – Maryland-National Capital Park and Planning Commission (M-NCPPC)**
 - a. EA subcontractor (CCJM) completed the installation of the concrete monuments and survey markers. Final field verification and drawings in preparation.

- 4. Draft-Final Consent Order**
 - a. DEP submitted comments to MDE on the Draft-Final Consent Order on 5/10/12.
 - b. DEP included narrative text regarding Community Engagement and Land Reuse. See Handout.

- 5. ACM Work Plan**
 - a. DEP submitted the ACM Work Plan to MDE on 5/10/12. See Handout.

- 6. Consultant Proposal for ACM Report**
 - a. DEP and EA are refining the scope of work (currently in Draft form).
 - b. DEP to provide GLCC a copy of the scope of work once the Draft-Final is prepared.

- 7. Fact Sheets for Community Newsletter**
 - a. Draft NES Amendment No.1 Fact Sheet for review. See Handout.
 - b. Draft ACM Fact Sheet for review. See Handout.
 - c. Need distribution date for Community Newsletter. County to provide Fact Sheets.

- 8. Community Meeting for NES Amendment No.1 and ACM**
 - a. Discuss Logistics:
 - Meeting Date – Choose a date.
 - Meeting Location – Candlewood Elementary School – Need to reserve.
 - Meeting Content – Need to review.
 - ❖ landfill overview.
 - ❖ purpose and process for remediation project.
 - ❖ status update on recent project activities.
 - ❖ explain next steps in project.
 - ❖ discuss land reuse.

**Gude Landfill Remediation
Gude Landfill Concerned Citizens
Monthly Meeting No. 22**

Meeting Agenda

9. Landfill Remediation Webpage

- a. DEP continues to update with new information for public access.
- b. ACM Work Plan to be posted.

10. Current Gude Landfill Operations

- a. Groundwater & Surface Water Monitoring
 - DEP is preparing the Spring 2012 Semi-Annual Report for submission to MDE in June 2012.
- b. Landfill Gas Monitoring
 - No current exceedences. All monitoring wells are in compliance.

11. Action/Follow-up Items and Next Meeting

- a. Open Action Items
 - 16-2, 17-1 and 18-1. For review during ACM and Land Reuse process.
 - 20-5. DEP and GLCC to confirm potential date and define content for larger Community meeting (August 2012).
- b. Action Items to Close
 - 20-3 and 20-4. NES Amendment No.1 and ACM Fact Sheets to be prepared for inclusion in the Derwood Station Newsletter (May 2012).
- c. New Actions Items from Meeting
- d. Next Meeting date
 - Shift from June 14 to June 21.

Date	May 17, 2012	Meeting No. 22
Time	7:30 -9:00 PM	
Meeting	Gude Landfill Remediation: GLCC/DEP	

Name	Initial if Present	Affiliation	Phone	Email	Address
Stephen Lezinski	STL	DEP	240-777-6590	Steve.Lezinski@montgomerycountymd.gov	16101 Frederick Road Derwood, MD 20855
Peter Karasik	PK	DEP	240-777-6569	Peter.Karasik@montgomerycountymd.gov	16101 Frederick Road Derwood, MD 20855
Mark Gutberlet	MJG	EA Eng.	410-329-5135	mgutberlet@eaest.com	15 Loveton Circle Sparks, MD 21152
Dave Peterson	DWP	GLCC/DS1 HOA	301-921-6357	Kmpdhn@hotmail.com	7612 Anamosa Way Derwood, MD 20855
Keith Ligon		GLCC	301-340-3358	Kligonfamily@verizon.net	15501 Moravia Court Derwood, MD 20855
Julia Tillery	JT	GLCC	202-329-8740	Julia@tilleryoffice.com	15461 Indianola Drive Derwood, MD 20855
Laszlo Haranyi	LH	GLCC/DSS HOA	301-840-3822	laszloH@comcast.net	7228 Titonka Way Derwood, MD 20855
Nick Radonic	NR	GLCC/DSS HOA	301-294-9124	Big.Radn@gmail.com	15408 Indianola Drive Derwood, MD 20855
George Wolohojian	GW	GLCC/DSS HOA	301-738-7148	gwolohojian@aol.com	15448 Indianola Drive Derwood, MD 20855
Other Meeting Attendees					

Chronology of Closed Action and Follow-up Items
as of
GLCC/DEP Meeting No. 22

- 5-01 DEP and EA to research the existence of a comprehensive database for closed landfill reuse options.
Status: Closed. EA provided a list of landfill reuse resources, which was attached to the minutes for Meeting No. 7.
- 5-02 GLCC to schedule next Derwood Community Meeting; second quarter 2010.
Status: Closed. GLCC noted that the Community will continue to be welcome at the monthly meetings, and these will be included in the DEP letter to the HOAs and the residents. Therefore, GLCC does not plan to schedule another community meeting at this time.
- 5-03 DEP to contact MDE regarding the spring and northwest slope surface water sampling, and leachate seep repairs on northwest slope.
Status: Closed. DEP and MDE met on December 21, 2009 and discussed these issues. The outcome was summarized in Attachment No. 4 of the Meeting No. 7 minutes.
- 5-04 DEP to post the recent aerial survey of the Gude Landfill on the remediation project website.
Status: Closed. The image has been posted on the website.
- 5-05 DEP to evaluate if Biochemical and Chemical Oxygen Demand (BOD/COD) can be included for analysis purposes in surface water samples.
Status: Closed. After further discussion, GLCC agreed that BOD sampling would not be conducted, since it would be difficult to discern whether the results were affected by the landfill. DEP agreed to collect samples for COD analysis. The objectives and plan for COD sampling was and agreed to between DEP and GLCC.
- 5-06 DEP to reschedule the dioxin/furan testing of the Gude Landfill gas-to-energy engine.
Status: Closed. The testing was conducted in early March 2010 but the results have not yet been reported.
- 5-07 EA to provide a list of the chemical analytes that were detected in the Gude Landfill groundwater/surface water sampling that are carcinogens.
Status: Closed. EA provided a summary of risk and carcinogenic effects for chemical analytes, which is included as Attachment No. 6 to the Meeting No. 7 minutes.
- 6-01 DEP and EA to create a list of open agenda items (i.e., action and follow-up items).
Status: Closed. This list is included in the meeting minutes and will be carried into subsequent minutes.
- 6-02 DEP and EA to finalize more precise locations of the new monitoring wells. Follow-up work with permitting agencies, utility locators, and adjoining property owners will be conducted.
Status: Closed. Additional location information finalized.

Chronology of Closed Action and Follow-up Items
as of
GLCC/DEP Meeting No. 22

- 6-03 GLCC/DEP/EA to finalize an approach to communicate all aspects of the expanded monitoring well program to the Derwood Community.
Status: Closed. Initial letters to be sent to the HOAs, with follow-up letters to residents in the immediate area of proposed intrusive activities.
- 7-01 DEP to complete interim measures for leachate redirection at seep locations.
Status: Closed. Completed May/June 2010.
- 7-02 DEP to finalize and send letter to HOAs regarding the landfill remediation project and proposed groundwater monitoring well locations within the Community.
Status: Closed. DEP prepared the Community notification letter dated 2-26-10 for distribution to the residents via the HOA presidents.
- 7-03 DEP to obtain dioxin/furan test results for flare and engine.
Status: Closed. Results provided to GLCC June 2010.
- 8-01 EA will provide DEP with a full version of the Draft Study Plan as a PDF for posting on the website and an abbreviated PDF version for distribution to GLCC members.
Status: Closed. Received by County on August 6, 2010. County to post on remediation webpage.
- 8-02 GLCC will distribute the DEP Community Letter in a special edition of each of the three HOA newsletters, both by e-mail and standard mail, by the end of March.
Status: Closed.
- 9-01 DEP and EA will provide a list of milestones and dates to include as a schedule update with minutes from each meeting.
Status: Closed.
- 9-02 DEP and EA will identify special instructions for residents and the driller to be used during the actual well drilling for inclusion in the individual resident notification letters.
Status: Closed. Completed June 2010.
- 10-1 EA will prepare a Maryland Toxic Air Pollutant regulation compliance demonstration for dioxin/furan emissions from the flares and engines at Oaks and Gude.
Status: Closed. DEP will post on the Remediation webpage.
- 10-2 GLCC will meet independently on June 20, 2010 to discuss the process of early integration of end use objectives into the corrective action planning process and will propose a pathway and procedure to DEP at the July 8, 2010 DEP/GLCC meeting.
Status: Closed. During Meeting No. 11, GLCC provided the County guidance on preferred end uses from the Community for the Gude Landfill site.

Chronology of Closed Action and Follow-up Items
as of
GLCC/DEP Meeting No. 22

- 11-1 GLCC requested Bob Hoyt, Director of DEP to attend the next GLCC/DEP monthly meeting on September 15, 2010 to discuss the Request for Expression of Interest (REOI).
Status: Closed.
- 11-2 GLCC inquired if the County had investigated the potential for a Brownfields Grant for the Remediation/Land Reuse project.
Status: Closed. Grant funding options were presented to GLCC on 4/14/11.
- 12-1 Using the risk evaluation methodology, EA will back calculate contaminant concentrations that would represent a human risk concern for vapor intrusion from groundwater into indoor air.
Status: Closed. The calculation was made by EA and included in the analysis and provided to GLCC.
- 13-1 EA will revise the last two sentences in paragraph 5) of the minutes for Meeting No. 12 to clarify the concept.
Status: Closed. Changes are reflected in Meeting No. 12 Minutes.
- 13-2 EA will prepare and submit to DEP for review a summary of the project status including background, status, and the remaining activities to complete the project. The HOA Presidents will distribute this summary to Derwood Station residents.
Status: Closed. The Nature and Extent Study Fact Sheet was e-mailed to GLCC/HOA Presidents by Steve Lezinski on 12/23/10 for distribution to the Derwood Station Residential Community.
- 13-3 EA will research the applicability of 40 CFR Part 258 Subpart E and report back to DEP and GLCC.
Status: Closed. A response was provided via e-mail by Steve Lezinski to GLCC on 11/3/10 – the regulation is not applicable to Gude Landfill.
- 14-1 DEP will address conformance of the current monitoring program to the 2001 County Groundwater Protection Plan.
Status: Closed. It was determined that the Ground Water Protection Strategy is not an active program within DEP.
- 14-2 DEP will contact the County Attorney and the County Real Estate Office concerning potential property value impacts and seller's obligations.
Status: Closed. The Office of the County Attorney cannot provide legal advice to members of the Community. If members of the Community desire advice on property value impacts and seller's obligations, they would have to obtain this legal advice from their own legal counsel.
- 15-1 DEP and EA will establish a list of key project milestones for inclusion in the Project Communications Plan.
Status: Closed. As part of the Project Communications Plan, an updated project schedule and key project milestones were presented to GLCC on 4/14/11.

Chronology of Closed Action and Follow-up Items
as of
GLCC/DEP Meeting No. 22

- 15-2 DEP and EA will determine the current regulation for setbacks at new landfills and report this information to GLCC.
Status: Closed. Applicable setback requirements were determined and presented to GLCC on 4/14/11.
- 15-3 DEP will submit the proposed action plan for further investigation and analysis to satisfy MDE's concerns about the Nature and Extent Study to MDE by March 18, 2011.
Status: Closed. The work plan of Amendment No. 1 to the Nature and Extent Study was submitted to and accepted by MDE in March 2011.
- 16-1 DEP and EA will evaluate the potential corrective measure of excavation and relocation of waste in greater detail, and present this to GLCC at a future monthly meeting.
Status: Closed. DEP and EA presented the potential corrective measure of waste excavation and reclamation during the GLCC/DEP Meeting No. 17.
- 17-2 DEP will add a timeline/milestone review section to future meeting agendas.
Status: Closed. DEP added this item as a standard topic for future agendas.
- 17-3 DEP will create a quarterly newsletter to orient the larger Community and other adjacent property stakeholders on the Landfill. The newsletter will contain an update on the Nature and Extent Study activities that have occurred in the past three months. The newsletter will be provided to GLCC to include in an upcoming HOA newsletter.
Status: Closed. DEP provided the Quarterly Newsletter to GLCC and the Derwood Station HOA's on June 30, 2011.
- 20-1 DEP and EA will provide a map that combines analytes with MCL exceedences and their individual inferred extent of contamination. DEP stated this could be accomplished after MDE approval of the NES Amendment No.1 Report.
Status: Closed. DEP and EA presented the information at GLCC/DEP Meeting No. 21.
- 20-2 DEP and EA will prepare a written explanation of the chemical degradation of TCE and PCE.
Status: Closed. DEP and EA presented the information at GLCC/DEP Meeting No. 21.
- 20-3 DEP will prepare a Fact Sheet for the NES Amendment No. 1 after MDE approval of the Report.
Status: Closed. DEP provided the draft fact sheet for review and will prepare the final version by the end of May. DEP provided the fact sheet to GLCC via email on May 31, 2012 for inclusion in the June 2012 Derwood Community Newsletter.
- 20-4 DEP will prepare a Fact Sheet to summarize the ACM process after MDE approval of the NES Amendment No.1 Report.
Status: Closed. DEP provided the draft fact sheet for review and will prepare the final version by the end of May. DEP provided the fact sheet to GLCC via email on May 31,

Chronology of Closed Action and Follow-up Items
as of
GLCC/DEP Meeting No. 22

2012 for inclusion in the June 2012 Derwood Community Newsletter.

10. The County agrees to continue holding monthly status meetings with local community representatives who wish to attend these meetings at mutually agreeable dates and times during the duration of the ACM and the implementation of corrective measures. Discussion of the land use and reuse process will continue during this period. The County also agrees to continue holding larger community meetings based on milestone achievements of the NES and during the ACM and land use and reuse processes that include: Completion of the NES (MDE Approval) and Introduction of the ACM; Completion of the ACM (MDE Approval); and any interim or decision-based Land Use and Reuse discussions during the implementation of corrective measures as requested by the County or the community.

11. During the six (6) month period following the Department's approval of the ACM Report, the County (Department of Environmental Protection) agrees to forward, verbatim, to the County Executive and the County Council any written recommendations from the nearby communities concerning the potential future land uses and reuses of the Landfill site and the incorporation of potential future land uses and reuses in the design and implementation of corrective measures selected through the ACM process. All written recommendations from the nearby communities shall be submitted to the Director of the County's Department of Environmental Protection at 255 Rockville Pike, Suite 120, Rockville, MD 20850. Community recommendations shall be forwarded by the County Department of Environmental Protection within thirty (30) days of receipt.



DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Robert Hoyt
Director

May 10, 2012

Martha Hynson, Chief
Landfill Operations Division
Solid Waste Program
Maryland Department of the Environment
1800 Washington Blvd., Suite 605
Baltimore, MD 21230-1719

Re: Gude Landfill – Assessment of Corrective Measures Work Plan

Dear Ms. Hynson:

This letter is in response to your letter to the Montgomery County Department of Environmental Protection (DEP) dated March 13, 2012 (received March 16, 2012) that approved the Nature and Extent Study (NES) Amendment No. 1 Report for the Gude Landfill. Your letter also required that DEP provide an Assessment of Corrective Measures (ACM) Work Plan within sixty (60) days of receipt, including a schedule for submission of the final ACM Report. We are providing the requested information herein relative to the Gude Landfill, which is located at 600 E. Gude Drive in Rockville, Maryland.

Provided below is our ACM Work Plan, which is divided into several subheadings: Project Sequence and Schedule, Technical Support, Project Funding, and Coordination with the Maryland Department of the Environment (MDE), Community and Other Jurisdictional and Public Agencies.

Project Sequence and Schedule

The principal phases of the Gude Landfill ACM Work Plan are outlined below, including a preliminary schedule for implementation and completion:

Division of Solid Waste Services

16101 Frederick Road • Derwood, Maryland 20855 • 240-777-6560 • 301-840-2385 FAX
www.montgomerycountymd.gov/solidwaste • Located at the intersection of Route 355 and Shady Grove Road

 Printed on recycled and recyclable paper

**Gude Landfill – Assessment of Corrective Measures
Preliminary Project Sequence and Schedule**

Work Plan Item	Schedule	Duration
1. Develop a Scope of Work and execute a Contractor Task Order for the preparation of the Assessment of Corrective Measures (ACM) research, field work, analyses and the associated final Report for the Gude Landfill.	Jun. 2012 – Aug. 2012	3 months
2. Review of case study literature and research to identify potentially effective (i.e. preliminary) corrective measure alternatives to mitigate: low-level groundwater contamination above Maximum Contaminant Levels (MCL); landfill gas (i.e. methane) exceedences above the Lower Explosive Limit (LEL); and potential non-stormwater discharges (i.e. leachate seeps) at and in vicinity of the Landfill. Potential corrective measure alternatives that may be considered individually or in combination include: Waste Excavation (Selective and Extensive); Phytoremediation; Monitored Natural Attenuation; Landfill Cover System Improvements and Partial or Full Capping; Bioremediation; and In-Situ Permeable Barriers.	Sep. 2012 – Nov. 2012	3 months
3. Perform site specific and detailed analyses of the four (4) most feasible and effective corrective measure alternatives that exhibit the greatest potential for positive remedial impacts at the Gude Landfill. The analyses will evaluate: compliance with remediation objectives; short-term and long-term effectiveness toward quantifiable results; implementability; protection of human health and the environment; source treatment and reduction of toxicity, mobility and volume; estimated initial implementation and long-term maintenance costs; regulatory and community acceptance; and potential effects of alternatives on future land reuse.	Dec. 2012 – Feb. 2013	3 months
4. Complete an ACM Report which includes a discussion of the technical options reviewed and the basis for a final recommendation.	Mar. 2013 – May 2013	3 months
5. Submit Draft Final ACM Report with recommendation to MDE.	June 1, 2013	---
6. MDE Review Period and Response to Comments. County and Other Stakeholder Review and Response to Comments.	To Be Determined	---
7. Submit Final ACM Report and obtain MDE Approval.	To Be Determined	---
8. Public Meeting following MDE Approval of ACM.	To Be Determined	---

Note 1: Schedule may be affected by procurement and budget approval processes, public coordination efforts, and other unforeseen public obligations. Actual durations may be shorter or longer depending on such factors

Note 2: It is anticipated that document review and comment time from other County agencies, Community representatives, and other applicable Jurisdictional and Public Agencies will occur under Item 6 of the Schedule. As stated, the timeline for review and comment on the Draft Final ACM Report from these stakeholders as well as MDE is “to be determined” and is not incorporated into the schedule for submission of the Draft Final ACM Report to MDE.

Technical Support

DEP has previously and will continue to use the existing Intergovernmental Agreement (IGA) with the Northeast Maryland Waste Disposal Authority (Authority) to provide “technical, engineering, operations, procurement and marketing assistance to the County with respect to the County’s Solid Waste Management System and in furtherance of the County’s solid waste activities.” The Authority has several pre-qualified firms under contract with expertise in hydrogeology, surveying, landfill design, permitting, construction, closure and remediation. DEP and the Authority are in the process of securing a specific proposal and cost from EA Engineering, Science, and Technology (EA Engineering) to take the principal role in the preparation of the ACM and associated Report. EA has previously provided technical support to the Authority and County for the Waste Delineation Study, NES and NES Amendment No.1 Reports and the Remediation Feasibility Memorandum.

DEP also has SCS Engineers under contract for landfill gas monitoring and collection system maintenance services, including operation and maintenance of the existing enclosed Flare Station and 0.8 MW Landfill Gas-to-Energy Facility at Gude Landfill.

Project Funding

With respect to financial commitments, DEP has approximately \$300,000 remaining of the initial \$1.3 million dollars of FY09 funds that were allocated to cover the costs associated with the Phase 0 (Aerial/Field Survey and Waste Delineation) and Phase 1 (NES, NES Amendment No.1, and the Remediation Feasibility Memorandum) project work. These funds will be used to fund the ACM and associated Report.

Once the most feasible and effective corrective measure alternatives are selected and associated costs are estimated, DEP will prepare a formal Capital Improvement Program (CIP) budget for submission to the County Executive and the County Council to request funds to implement the remediation approach.

Coordination with MDE, Community and Other Jurisdictional and Public Agencies

DEP has been working closely with MDE on-site inspections, site repairs and the development and approval of formal environmental monitoring plans for landfill gas, groundwater and surface water. DEP will continue to work closely with MDE to address other site issues as they arise including agreement on the final language and commitments of the Draft-Final Consent Order, which MDE intends to issue to assure the execution of the corrective measure work resulting from the ACM and associated Report at the Gude Landfill.

DEP will continue to perform best management practices for post-closure care at the Gude Landfill during the remediation project for: stormwater management, landfill gas management, erosion and sedimentation control, leachate seep correction, and good house-keeping.

Ms. Martha Hynson

May 10, 2012

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DEP continues to maintain regular communications with the adjacent residential community including the Gude Landfill Concerned Citizens (GLCC) group. In addition, the County continues to maintain a Remediation Webpage to share technical information with the community and is incorporating funds for public presentations and meetings in upcoming contract work of the ACM and associated Report. DEP will also continue to keep the Maryland-National Capital Park and Planning Commission (M-NCPPC) informed of the progress of the ACM as the Exchange of Land due to waste encroachment is nearing completion.

The final recommendations for corrective measure implementation will be incorporated into the County and M-NCPPC Mandatory Referral processes, including the consideration of potential future land uses and reuses of the Landfill site that are consistent with the remediation objectives and plans. The County Executive and County Council will also play an integral role in the review and selection of potential future land uses and reuses for the Landfill site and in seeking public input through public hearings on the CIP project(s) and other forums.

Please contact me at 240-777-6569, or at peter.karasik@montgomerycountymd.gov if you have questions or comments concerning this Work Plan.

Sincerely,



Peter R. Karasik, P.E.
Section Chief, DEP/DSWS Central Operations

PRK:pk/gudelf_acmworkplan(5-10-12).doc

Enclosures

cc: Karen Kumm Morris, Maryland-National Capital Park and Planning Commission
Keith Ligon, Gude Landfill Concerned Citizens
Robert Hoyt, Director, Department of Environmental Protection
Daniel Locke, Chief, DEP/DSWS
David Lake, Special Assistant/Office of the Director, DEP
Stephen Lezinski, Engineer III, DEP/DSWS

Summary Statement

The Montgomery County (County) Department of Environmental Protection (DEP) has prepared this Fact Sheet to summarize the accepted details and findings of the NES, Amendment No. 1 Report and provide a current status update for on-going project activities. The NES Amendment No.1 Report identified the nature and extent of contamination and potential impacts to public health and the environment at and in the vicinity of the Gude Landfill (Landfill). DEP previously prepared and distributed a Fact Sheet on the NES Report on December 23, 2010 and a Quarterly Landfill Newsletter on June 30, 2011. DEP also has prepared an Introduction Fact Sheet for the Assessment of Corrective Measures (ACM) in May 2012.

EA Engineering, Science, and Technology, Inc. (EA) was contracted by DEP through the Northeast Maryland Waste Disposal Authority to provide technical support and assist with the field investigations, analyses and technical evaluations associated with the Gude Landfill remediation investigations.

Overview

At the direction of the Maryland Department of the Environment (MDE), DEP prepared and recently completed a Nature and Extent Study (NES) to assess the potential environmental and public health impacts associated with low level environmental contamination in the vicinity of and potentially resulting from the Gude Landfill (Landfill). The results of the NES indicated that while there is persistent low level groundwater contamination and occasional surface water detections of contaminants from the Landfill, there are no significant exposure pathways to neighboring residents and consequently, no risks to public health. It should be noted that the groundwater in the vicinity of the Landfill is not used as a potable water supply. The Derwood Station residential development's potable water is serviced by the Washington Suburban Sanitary Commission (WSSC), a public water supply system. The NES was completed and submitted to the Maryland Department of the Environment (MDE) in November 2010. MDE provided comments to the DEP, which were discussed in a meeting in February 2011. In order to fully address MDE's comments, DEP completed additional field investigations and prepared the NES Amendment No. 1 Report. The NES Amendment No. 1 Report was subsequently submitted to MDE on November 21, 2011. MDE approved the findings of the NES Amendment No. 1 in a letter dated March 13, 2012 (received March 16, 2012 by DEP).

DEP has been meeting with a local citizen advisory group, the Gude Landfill Concerned Citizens (GLCC), on a monthly basis from June 2009 to present. The purpose of the meetings is to provide information regarding the initial remediation investigations (Waste Delineation, NES and NES Amendment No.1), site operations and reporting requirements to MDE. These monthly meetings are open to any interested members of the public. All documents referenced within this Fact Sheet can be found on the Gude Landfill Remediation Webpage at:

- < <http://www.montgomerycountymd.gov/swstmpl.asp?url=/content/dep/solidwaste/facilities/gude/index.asp>>.

Nature and Extent Study Amendment No. 1

In order to address MDE's comments on the NES, additional field investigations were performed to further define the nature and extent of potential impacts to groundwater along the property boundary of the Landfill. The NES Amendment No. 1 findings support the conclusions of the NES Report. The accepted details and findings of the NES, Amendment No. 1 Report are summarized below.

Permanent and Temporary Monitoring Well Permitting and Installation (July - August 2011)

Three (3) permanent groundwater monitoring wells (MW-14A, MW-14B and MW-15) were permitted and installed in the Derwood Station residential development as part of the NES Amendment No. 1 to confirm the nature and extent of potential groundwater impacts in the Derwood Station residential development, to the northwest of the Landfill. Additionally, ten (10) temporary groundwater monitoring wells (TGW-1 through TGW-10) were installed to verify the nature and extent of potential groundwater impacts and evaluate whether adjacent streams are hydraulic barriers that restrict contaminant migration.

Groundwater Sampling and Monitoring (April and September 2011)

In accordance with the approved MDE Groundwater and Surface Water Monitoring Plan for the Landfill, the County collected groundwater samples from the existing groundwater monitoring wells (including wells installed as part of the NES) in April 2011. The laboratory results from this event were evaluated as part of the NES Amendment No. 1. In addition to the County's semi-annual sampling event (April 2011), an additional groundwater sampling event was performed in September 2011 by EA which consisted of NES Amendment No. 1 monitoring wells MW-14A, MW-14B and MW-15 and the ten (10) temporary groundwater monitoring wells.

The April and September 2011 groundwater sampling data was consistent with the results reported in the NES Report from July and September 2010. The results indicate that the north-northwestern and south-central boundaries of the Landfill continue to have the higher reported chemical concentrations. The same constituents of concern with concentrations greater than United States

Environmental Protection Agency (US EPA) maximum contaminant levels (MCLs) for drinking water identified in the NES Report were also identified during the NES Report Amendment No. 1 investigations. Field-filtered groundwater sample results indicate that metals that exceeded the MCLs during the NES sampling event (July/August 2010), NES Amendment No. 1 sampling event (September 2011) and County semi-annual sampling event (April 2011) for total metals were due to high turbidity (i.e., sediment suspended in groundwater). **No MCL exceedances were reported in groundwater samples collected from the new groundwater monitoring wells in the Derwood Station residential development (MW-14A, MW-14B and MW-15)** during the NES Amendment No. 1 sampling event (September 2011). The temporary wells indicated that the Crabbs Branch and Southlawn Branch streams act as hydraulic barriers to restrict contaminant migration.

Stream Gauge Measurements (August 2011)

As part of the NES Amendment No. 1, fifteen (15) stream gauge locations (SG-1 to SG-15) were identified and the elevation of water within the stream was surveyed. The gauging of the stream elevations were performed in conjunction with depth to water measurements of all existing and new permanent and temporary groundwater monitoring wells by EA on August 30, 2011. Similar to the findings of the NES Report, groundwater elevation data collected from the groundwater monitoring wells and stream gauge locations indicated an easterly groundwater flow direction across the Landfill, with minor north, northeasterly and southeasterly components.

Current Status

MDE approved the findings of the NES Amendment No. 1 in the letter dated March 13, 2012 (received March 16, 2012 by DEP), which also required DEP to prepare an ACM Work Plan (next step in the remediation process) within sixty (60) days of receipt of the letter (by May 15, 2012). DEP submitted the ACM Work Plan to MDE on May 10, 2012.

DEP is also working with the Maryland-National Capital Park and Planning Commission (M-NCPPC) on an exchange of land. An approximate 17-acre area that extends roughly two-hundred-fifty (250) feet beyond the northeastern property boundary of the Landfill was identified with subsurface waste. As a result, an exchange of land is being initiated between the County and the M-NCPPC, which will allow the County to acquire the property where waste had been previously placed.

Additionally, DEP is also working with MDE on an administrative Consent Order, which will stipulate the requirements of the ACM and associated Report.

The GLCC and DEP representatives continue to meet on a regular monthly basis to exchange information. These meetings are open to the public. For additional information at meeting dates, times and locations, DEP's point of contact is:

Steve Lezinski, Engineer III

Montgomery County Processing Facility and Transfer Station

16101 Frederick Road, Derwood, MD 20855

Tel: 240-777-6590; Cel: 240-832-0414; Fax: 301-840-2385

Email: Steve.Lezinski@montgomerycountymd.gov

Summary Statement

The Montgomery County (County) Department of Environmental Protection (DEP) has prepared this Fact Sheet to summarize content and process of the Assessment of Corrective Measures (ACM). The ACM is the next phase in the remediation investigation at the Gude Landfill (Landfill) and includes investigations, analyses and evaluations to determine the most appropriate corrective measures to bring the Landfill site into compliance with regulatory requirements. DEP previously prepared and distributed a Fact Sheet on the Nature and Extent Study (NES) Report on December 23, 2010 and a Quarterly Landfill Newsletter on June 30, 2011. DEP also has prepared a Fact Sheet for the NES Amendment No.1 in May 2012.

EA Engineering, Science, and Technology, Inc. (EA) was contracted by DEP through the Northeast Maryland Waste Disposal Authority to provide technical support and assist with the field investigations, analyses and technical evaluations associated with the Gude Landfill remediation investigations.

Overview

The Maryland Department of the Environment (MDE) approved the NES Amendment No.1 Report in a letter dated March 13, 2012 (received March 16, 2012 by DEP). The results of the NES Amendment No.1 indicated that while there is persistent low level groundwater contamination and occasional surface water detections of contaminants from the Landfill, there are no significant exposure pathways to neighboring residents and consequently, **no risks to public health**. Along with the Amendment No.1 approval, MDE also required DEP to prepare an ACM Work Plan within sixty (60) days of receipt of the letter (by May 15, 2012). DEP submitted the ACM Work Plan to MDE on May 10, 2012.

The overall remediation process for the Landfill includes:

- **Waste Delineation Study (complete January 2010)** – DEP defined the horizontal extent of waste placement along and beyond the Landfill property boundary.
- **NES (complete March 2011)** – DEP defined the nature and extent of potential contamination by identifying the types of contaminants, the concentration of contaminants and the location of contaminants at and in the vicinity of the Landfill.
- **ACM (starting in June 2012)** – Based on the nature and extent of contamination, DEP will evaluate and select a remedial approach including corrective measures to address the contamination. DEP will define short-term and long-term goals for the remediation to protect human health and the environment and comply with environmental regulations.
- **Corrective Measure Design (future)**
- **Corrective Measure Implementation (future)**

DEP has been meeting with a local citizen advisory group, the Gude Landfill Concerned Citizens (GLCC), on a monthly basis from June 2009 to present. The purpose of the meetings is to provide information regarding the initial remediation investigations (Waste Delineation, NES and NES Amendment No.1), site operations and reporting requirements to MDE. These monthly meetings are open to any interested members of the public. All documents referenced within this Fact Sheet can be found on the Gude Landfill Remediation Webpage at:

- < <http://www.montgomerycountymd.gov/swstmpl.asp?url=/content/dep/solidwaste/facilities/gude/index.asp>>.

Assessment of Corrective Measures Approach

Work performed as part of the ACM will be documented in a report and submitted to MDE within 240 days of the approval of the ACM Work Plan. The Landfill ACM approach that will be detailed in the ACM Work Plan includes:

- **Remedial Action Objectives and General Response Actions** – The overall remediation objectives for the corrective measure(s) will be defined. These will include protecting human health and the environment and meeting environmental regulations. These will be defined as short-term and long-term goals.
- **Development and Screening of Preliminary Corrective Measure Alternatives** – Preliminary corrective measure alternatives will be identified and evaluated based on their ability to meet remedial action objectives, implementability, effectiveness and cost. Three to four alternatives that are most viable will be retained for more detailed evaluation.

Approaches and technologies that may be evaluated include:

- Waste Relocation (Selective or Extensive)
- Bioremediation
- Phytoremediation
- Monitored Natural Attenuation
- Landfill Cover System Improvements and Partial or Full Capping
- In-Situ Groundwater Barriers

- *Detailed Analysis of Corrective Measure Alternatives Retained from Screening* – Corrective measure alternatives retained from the screening will be analyzed in more detail. Timeframes to meet the remedial action objectives will be estimated. Construction costs and on-going operation and maintenance costs will be estimated.
- *Recommendations* – Based on the results of the analyses and evaluation, a corrective measure alternative will be recommended for detailed design and implementation.
- *Coordination with Future Land Reuse* – Efforts will be made to coordinate the design and implementation of the selected corrective measures with the potential land reuse alternatives.

Current Status

DEP submitted the ACM Work Plan to MDE on May 10, 2012.

DEP is also working with the Maryland-National Capital Park and Planning Commission (M-NCPPC) on an exchange of land. An approximate 17-acre area that extends roughly two-hundred-fifty (250) feet beyond the northeastern property boundary of the Landfill was identified with subsurface waste. As a result, an exchange of land is being initiated between the County and the M-NCPPC, which will allow the County to acquire the property where waste had been previously placed.

Additionally, DEP is also working with MDE on an administrative Consent Order, which will stipulate the requirements of the ACM and associated Report.

The GLCC and DEP representatives continue to meet on a regular monthly basis to exchange information. These meetings are open to the public. For additional information at meeting dates, times and locations, DEP's point of contact is:

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