GUDE LANDFILL REMEDIATION

GLCC/DEP MEETING NO. 29

| DATE: | May 9, 2013 |
|-----------|------------------------------------|
| TIME: | 7:30 PM to 9:00 PM |
| LOCATION: | Montgomery County Transfer Station |

ATTENDANCE:

| <u>Name</u> | <u>Organization</u> | Designation |
|-------------------|--|--------------------|
| | | |
| Laszlo Harsanyi | Gude Landfill Concerned Citizens (GLCC) | Member |
| Keith Ligon | Gude Landfill Concerned Citizens (GLCC) | Member |
| Dave Peterson | Gude Landfill Concerned Citizens (GLCC) | Member |
| Nick Radonic | Gude Landfill Concerned Citizens (GLCC) | Member |
| Charles Regan | 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) | Senior Engineer |
| 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.

Other Attachments are referenced within th

MINUTES:

- 1) Steve Lezinski of DEP requested approval of the minutes from GLCC/DEP Meeting No. 28. George Wolohojian of GLCC inquired about the wording of action/follow-up items 16-2, 17-1 and 18-1, regarding land reuse. GLCC/DEP agreed to close out these prior items and create a new action/follow-up item that more accurately represents the current land reuse discussions. The new action/follow-up item (29-1) identifies the stakeholder meeting in which County and Community representatives would discuss the land reuse decision process. In addition, representatives would jointly present and discuss potential and preferred land reuse options along with their integration for the Gude Landfill site. GLCC approved the minutes.
- 2) Steve Lezinski provided an update on remediation-related project activities:
 - The land exchange with M-NCPPC is still proceeding and the County Office of Real Estate is assembling an information package to initiate the County's new Land Disposition Process that requires County Council approval.

- The final Consent Order is being executed by the County's Chief Administrative Officer (CAO). The Consent Order will then be sent back to MDE for execution. Steve L. offered to provide a PDF copy of the Consent Order to GLCC via e-mail.
- Assessment of Corrective Measures (current status):
 - MDE agreed to a revised submission date for the ACM Report to MDE of August 1, 2013. This revised submission date accommodates a time period for reviews and approvals by senior County representatives of the selected remedial alternative.
 - The initial drafts of Sections 1-5 of the ACM Report are complete. This information has been reviewed by County staff but not by the County Executive or other stakeholders. The County provided 2 hardcopies of the sections to GLCC for review and comment.
 - GLCC members asked questions regarding the ACM. There were on-going discussion between GLCC and DEP. The more significant questions/discussion included:
 - George Wolohojian asked how the remedial alternatives were selected. Steve L. responded that Section 4 of the ACM Report details the initial screening process, which evaluates each remedial technology on effectiveness, implementability and cost as well as other factors. The individual remedial technologies that are retained from the initial screening process proceed through a more detailed evaluation based on additional criteria in Chapter 5 of the ACM Report. Based on the detailed evaluation, the most feasible and effective remedial technologies are grouped together in remedial alternatives.
 - Keith Ligon of GLCC commented that the selective waste excavation option appeared to require construction equipment operating at the Landfill for an extended duration. Steve L. responded that this is correct. Due to the nature of how the Landfill was constructed, how waste was placed on-site, and the approach needed to achieve the remedial action objectives (RAOs), waste excavation will be a labor intensive process that will need to be carefully designed and implemented in phases over a number of years into the future.
 - Dave Peterson of GLCC asked if the County would need to inform the gas company who owns the Right-of-Way adjacent to the Landfill about the remediation project at the Landfill. Peter Karasik of DEP stated that no notification is required for work on County property. Steve L. added that as remediation work will be performed in close proximity to the Landfill property boundary, which borders the Right-of-Way, DEP will provide necessary outreach to the natural gas companies.
- Assessment of Corrective Measures (future steps)
 - Mark Gutberlet of EA described the matrix that will be used for evaluating remedial alternatives. The matrix includes a weighed ranking for each of the nine (9) criteria that are used to evaluate each alternative. The rankings are then added together to determine the highest ranked remedial alternative.

- Keith Ligon asked how the different criteria are weighted. Mark G. stated that the criteria are weighted evenly, i.e. no criterion is weighted more than another.
- Keith Ligon asked if there are any known stakeholders other than GLCC and County representatives. Steve L. stated that other County agencies like the Office of Management and Budget are referred to as stakeholders even though they are a County agency.
- Mark Gutberlet also reviewed the current corrective measure alternatives (Attachment 4).
- DEP continues to update the Gude Landfill Remediation Website.
- 3) Steve Lezinski stated that post-closure care activities at the Landfill continue as needed. Steve L. stated that site regrading has been performed to correct standing water and improve drainage. Improvements have been performed from March 2013 through May 2013.

Groundwater and surface water monitoring was performed by DEP in March and early April 2013. DEP is currently preparing the semi-annual report to MDE, which typically gets submitted to MDE in June of each year.

Steve L. also stated the landfill gas management system is operating properly and that the gas monitoring wells are currently in compliance. There have been intermittent methane gas exceedances along the Landfill property boundary. The exceedances may occur for a few days at a time and are controlled by adjusting the landfill gas well field to increase the vacuum along the north/northwest slope of the Landfill.

- 4) Steve Lezinski discussed the County's plan to install new methane gas detectors in Derwood Station South homes along the natural gas pipeline Right-of-Way (i.e. adjacent to the western boundary of Landfill). The County awarded a task order to one of the County's consultants to perform the installations, which should occur in the next one (1) to two (2) months. GLCC asked for a list of the homeowners that received the notice letters for a replacement or new detector installation. DEP will provide the homeowner list to GLCC so GLCC can contact all homeowners whom received a notice letter.
- 5) As the meeting reached its conclusion, Steve Lezinski mentioned that the most recent version of the Gude Landfill Remediation Schedule (Attachment 5) and DEP's responses to GLCC's questions (Attachment 6) from May 2013 were provided as handouts in this meeting. If there are questions, it was agreed that they can be reviewed at the next GLCC/DEP meeting.
- 6) GLCC and DEP agreed to tentatively hold the next GLCC/DEP meeting on June 13, 2013.

Recently Closed 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.
 <u>Status:</u> Closed. This action and follow-up item was combined with other action items regarding land reuse into new item 29-1.

- 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.
 <u>Status:</u> Closed. This action and follow-up item was combined with other action items
- regarding land reuse into new item 29-1.
 18-1 Once the Landfill land reuse discussion is documented and agreed upon in a decision memo with the County Executive and/or other stelkeholders. DER will share the final findings of the
- with the County Executive and/or other stakeholders, DEP will share the final findings of the agreed upon process with GLCC. Status: Closed. This action and follow-up item was combined with other action items

<u>Status:</u> Closed. This action and follow-up item was combined with other action items regarding land reuse into new item 29-1.

Open Action and Follow-up Items

At this time, there are no previously open action and follow-up items.

New Action and Follow-up Items

- 29-1 GLCC and DEP will continue to discuss the planning and schedule of the meeting between senior County representatives (such as the County Executive), County stakeholder agencies, and GLCC/community regarding the County's decision making process for land reuse at the Landfill. Potential County land reuse options and the integration and consideration of the Community's preferred reuse options are topics for discussion.
- 29-2 GLCC will contact homeowners who received a letter from the County offering a new methane gas detector to make sure the homeowners saw the letter. DEP will provide the list of homeowners who received the letter to GLCC.
- 29-3 DEP will provide a PDF copy of the Consent Order for the Landfill to GLCC via e-mail.

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. 29

Meeting Agenda

1. Meeting Sign-In Sheet

a. Please sign-in.

2. GLCC/DEP Meeting Minutes (Meeting No. 28 on 2/21/13)

a. DEP to request review and acceptance.

3. Remediation Project Activity Updates

- a. Land Exchange with M-NCPPC.
 - County Office of Real Estate is assembling an information package to initiate the County's new Land Disposition Process that requires County Council approval.
- b. Consent Order.
 - ➤ The final Consent Order is currently being executed (i.e. under signature) by the County's Chief Administrative Officer (CAO). The Consent Order will then be sent back to MDE for execution.
- c. Assessment of Corrective Measures (Current Status).
 - **Revised submission date to MDE, 8/1/13.**
 - Section 1 Background (*Initial Draft Complete*).
 - Section 2 Conceptual Site Model (*Initial Draft Complete*).
 - Section 3 Remedial Action Objectives (*Initial Draft Complete*).
 - Section 4 Initial Screening of Remedial Technologies (*Initial Draft Complete*).
 - Section 5 Detailed Analysis of Remedial Alternatives (*Initial Draft Complete*).
 - Please note that this information has not yet been reviewed with the County Executive or other stakeholders.
- d. Assessment of Corrective Measures (Next Steps).
 - ▶ Refinement of the Preliminary Cost Estimates for the Remedial Alternatives.
 - Section 6. Comparative Analysis of Remedial Alternatives.
 - Section 7. Consultant Recommended Remedial Alternative.
 - Section 8. Summary and Conclusions.
- e. Landfill Remediation Webpage updates continue.

4. Review GLCC to DEP Questions

- a. DEP received GLCC's questions regarding remediation and reuse via email on 5/5/13.
- b. DEP and EA have developed responses to GLCC's questions.

Montgomery County Transfer Station May 9, 2013 7:30 PM – 9:00 PM Page 1 of 2

Gude Landfill Remediation Gude Landfill Concerned Citizens Monthly Meeting No. 29

Meeting Agenda

5. Current Gude Landfill Operations

- a. Standard post-closure care activities.
 - Site regrading regrading work to correct standing water and improve stormwater drainage on the Landfill surface during March – May 2013.
 - Groundwater and Surface Water Monitoring March 18, 21, 26, 27 and 28, and April 1 and 2. DEP is currently preparing the semi-annual Report to MDE.
 - Landfill Gas Management there have been intermittent gas exceedences in the monitoring wells along the N.W. property boundary. All gas monitoring wells are currently in compliance.

6. Methane Gas Detectors in Derwood Station South Homes along the Right-of-Way

- a. <u>Recap from GLCC/DEP Meeting 28</u> The letters for the methane gas detectors were mailed to the Derwood Station South residents that border the high-pressure gas right-of-way on 2/15/13.
- b. <u>Recap from GLCC/DEP Meeting 28</u> 22 homes received the letter; the original 12 homes with existing detectors installed and 10 others that border the right-of-way.
- c. DEP received and evaluated consultant proposals to perform gas monitoring and detector replacement/installation work.
 - \blacktriangleright Kick-off meeting with consultant on 5/16/13.
 - ➤ 10 of the 22 homes contacted DEP for a replacement detector or a new detector installation.

7. 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.
- b. Summarize New Action Items from Meeting
- c. Next Meeting date.
 - Tentatively June 13, 2013 (Meeting No. 30).

Montgomery County Transfer Station May 9, 2013 7:30 PM – 9:00 PM Page 2 of 2

| Dat | Date May 9, 2013 | | Meeting No. 29 | | |
|-------------------|---|-----------------|----------------|---------------------------------------|--|
| Tim | Time 7:30 -9:00 PM | | | | |
| Meetin | Meeting Gude Landfill Remediation: GLCC/DEP | ition: GLCC/DEP | | | |
| Name | Initial if Present | Affiliation | Phone | Email | Address |
| Stephen Lezinski | 572 | DEP | 240-777-6590 | Steve.Lezinski@montgomerycountymd.gov | 16101 Frederick Road Derwood, MD 20855 |
| Peter Karasik | PRK | DEP | 240-777-6569 | Peter.Karasik@montgomerycountymd.gov | 16101 Frederick Road Derwood, MD 20855 |
| Jamie Foster | | | 240-777-6564 | jamie.foster@montgomerycountymd.gov | 16102 Frederick Road Derwood, MD 20855 |
| Mark Gutberlet | MAN | DR. | 410-329-5135 | mgutberlet@eaest.com | 15 Loveton Circle Sparks, MD 21152 |
| Dave Peterson | S | S1 HOA | 301-921-6357 | Kmpdhp@hotmail.com | 7612 Anamosa Way Derwood, MD 20855 |
| Keith Ligon | $\left\{ \right\}$ | | 301-340-3358 | KLigonfamily@verizon.net | 15501 Moravia Court Derwood, MD 20855 |
| Julia Tillery | ART | GLCC | 202-329-8740 | Julia@tilleryoffice.com | 15461 Indianola Drive Derwood, MD 20855 |
| Laszlo Harsanyi | H | GLCC/DS2 HOA | 301-840-3822 | LaszloH@comcast.net | 7228 Titonka Way Derwood, MD 20855 |
| Nick Radonic | , R. | GLCC/DSS HOA | 301-294-9124 | Big.Rad@gmail.com | 15408 Indianola Drive Derwood, MD 20855 |
| George Wolohojian | M | | 301-738-7148 | gwolohojian@aol.com | 15448 Indianola Drive Derwood, MD 20855 |
| | 100 | | | | |
| Charles | R | GLCC/DSSHOA | 202-510-1363 | 63 creasen 520@ amail.com | ail.com |
| Regan | ¢ | / | | ı J | 155 32 Grinnell Ferr |
| | | | | | Derwood MD 20855 |
| | | | | | |

Recycled Paper

- 5-01 DEP and EA to research the existence of a comprehensive database for closed landfill reuse options.
 <u>Status:</u> 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. <u>Status:</u> 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.
 <u>Status:</u> 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. <u>Status:</u> 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. <u>Status:</u> 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.
 <u>Status:</u> 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). <u>Status:</u> 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.
 <u>Status:</u> Closed. Additional location information finalized.

- 6-03 GLCC/DEP/EA to finalize an approach to communicate all aspects of the expanded monitoring well program to the Derwood Community. <u>Status:</u> 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. <u>Status:</u> 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.
 <u>Status:</u> 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. <u>Status:</u> 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.
 <u>Status:</u> 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. <u>Status:</u> 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. <u>Status:</u> 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. <u>Status:</u> 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. <u>Status:</u> 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. <u>Status:</u> Closed. During Meeting No. 11, GLCC provided the County guidance on preferred end uses from the Community for the Gude Landfill site.

- 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). <u>Status</u>: Closed.
- 11-2 GLCC inquired if the County had investigated the potential for a Brownfields Grant for the Remediation/Land Reuse project.
 <u>Status</u>: 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.
 <u>Status</u>: 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.
 <u>Status</u>: 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.
 <u>Status</u>: 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.
 <u>Status</u>: 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.
 <u>Status</u>: 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. <u>Status</u>: 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.
 <u>Status</u>: Closed. As part of the Project Communications Plan, an updated project schedule and key project milestones were presented to GLCC on 4/14/11.
- 15-2 DEP and EA will determine the current regulation for setbacks at new landfills and report this information to GLCC.
 <u>Status</u>: 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.
 <u>Status</u>: Closed. DEP and EA presented the potential corrective measure of waste excavation and reclamation during the GLCC/DEP Meeting No. 17.
- 16-2 DEP and EA will further evaluate end use options and present these to GLCC in a future monthly meeting.
 <u>Status:</u> Closed. This action and follow-up item was combined with other action items regarding land reuse into new item 29-1.
- 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. <u>Status:</u> Closed. This action and follow-up item was combined with other action items regarding land reuse into new item 29-1.
- 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. <u>Status</u>: Closed. DEP provided the Quarterly Newsletter to GLCC and the Derwood Station HOA's on June 30, 2011.

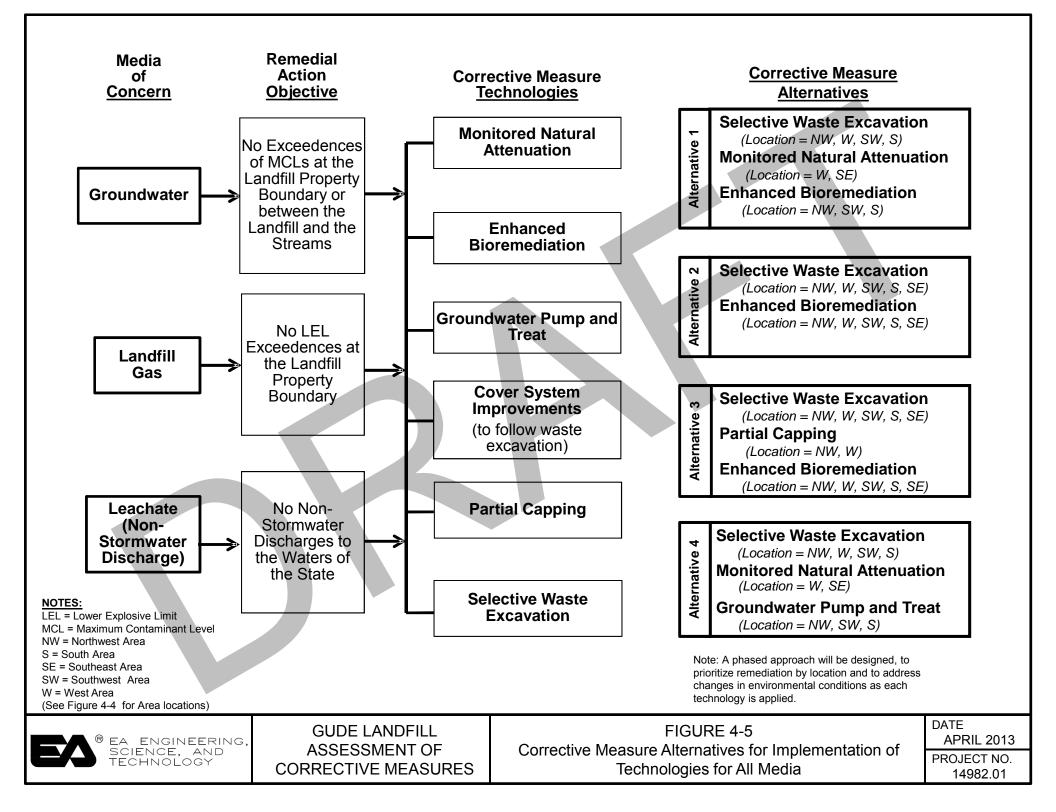
18-1 Once the Landfill land reuse discussion is documented and agreed upon in a decision memo with the County Executive and/or other stakeholders, DEP will share the final findings of the agreed upon process with GLCC.
<u>Status:</u> Closed. This action and follow-up item was combined with other action items

Status: Closed. This action and follow-up item was combined with other action items regarding land reuse into new item 29-1.

- 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.
 <u>Status:</u> 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.
 <u>Status:</u> 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.
 <u>Status:</u> 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.
- 20-5 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 September 11th, 12th, 13th, or 18th will be confirmed. Meeting on September 18 at Candlewood Elementary School has been tentatively decided. The date or location could be changed based on Montgomery County Public School calendar and Candlewood Elementary School availability.

<u>Status:</u> Closed. Community meeting has been scheduled and the draft presentation was reviewed with GLCC.

- 22-1 DEP to provide electronic copy of fact sheets via e-mail so GLCC can comment in those documents.
 <u>Status:</u> Closed. DEP e-mailed Microsoft Word versions of the fact sheets to GLCC via email prior to finalization on May 31, 2012.
- 22-2 DEP to develop workshops starting with the next GLCC meeting (MNA and bioremediation topics suggested). Part 1 of the workshop was presented at GLCC/DEP Meeting No. 23. Part 2 of the workshop was presented at GLCC/DEP Meeting No. 24. <u>Status:</u> Closed. Workshops were presented.
- 25-1 DEP will revise the community presentation based on the feedback and discussion at GLCC/DEP Meeting No. 25.
 <u>Status:</u> Closed. Presentation was revised and presented at the Community Meeting on September 18, 2012.
- 25-2 DEP will prepare the public notice for the community meeting and send it to GLCC for distribution to the community.
 <u>Status:</u> Closed. The public notice was provided before the Community Meeting.
- 25-3 GLCC will distribute the public notice provided by DEP via e-mail and door-to-door through existing HOA communication networks.
 <u>Status:</u> Closed. The public notice was distributed before the Community Meeting.
- 25-4 DEP will prepare and provide two signs announcing the community meeting to be placed along the streets at the two entrances to Derwood Station. <u>Status:</u> Closed. The signs were provided and posted before the Community Meeting.
- 26-1 DEP will provide a briefing on the draft of Section 4 of the ACM Report at the December 2012 GLCC/DEP Meeting.
 <u>Status</u>: Closed. A briefing was provided at the December 2012 meeting.
- 26-2 DEP will post the overall remediation schedule on the Gude Landfill Remediation Website.
 <u>Status</u>: Closed. The anticipated schedule is posted on the Remediation webpage.
- 26-3 DEP will post the M-NCPPC pamphlet of the Gude-Southlawn Recreational Area dated 1973 on the Gude Landfill Remediation Website.
 <u>Status</u>: Closed. The pamphlet is posted on the Remediation webpage.
- 27-1 GLCC will review the draft Table 4-2 from the ACM and provide any comments or ask questions about the initial analysis summarized in the table. <u>Status:</u> Closed. Table 4-2 was discussed at GLCC/DEP Meeting No. 28.



Gude Landfill Remediation Preliminary Project Schedule

5/7/2013

| | СҮ | 2008 | 2009 | 1 | 2 | 010 | | 2011 | | | 2012 | | 2 | 013 | | 20 | 14 | | 201 | 5 | | 2016 | | 20 | 17 | | 2018 |
|--|----|-------|---------|------|-------|--------|------|-------|------|-------|------|------|-------|------|------|------|------|-------|------|-------|--------|-------|------|-------|-------|------|---------|
| | | Q3 Q4 | Q1 Q2 C | 3 Q4 | Q1 Q2 | 2 Q3 Q | 4 Q1 | Q2 Q3 | 3 Q4 | Q1 Q | 2 Q3 | Q4 (| 21 02 | Q3 | Q4 Q | 1 02 | Q3 | Q4 Q1 | Q2 (| Q3 Q4 | 1 Q1 C | Q2 Q3 | Q4 (| Q1 Q2 | Q3 Q4 | Q1 Q | 2 Q3 Q4 |
| | FY | FY |)9 | FY1 | 0 | F | Y11 | | FY | 12 | 1 | FY1 | 3 | | FY14 | | | FY15 | | F | Y16 | | FY1 | 7 | F | Y18 | FY19 |
| | | | Q3 Q4 Q | | | Q1 Q2 | 2 Q3 | Q4 Q1 | Q2 | Q3 Q4 | 4 Q1 | Q2 (| 23 Q4 | Q1 0 | Q2 Q | 3 Q4 | Q1 (| Q2 Q3 | Q4 C | | | 04 Q1 | Q2 (| 23 Q4 | | | |
| Project Phase | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Formalize Environmental Monitoring Plans | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remediation Approach | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aerial Survey and Waste Delineation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nature and Extent Study (NES) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MDE NES Review | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NES Amendment 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MDE NES Amendment 1 Review/Approval | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ACM Work Plan | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MDE ACM Work Plan Review/Approval | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assessment of Corrective Measures (ACM) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MDE ACM Review | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ACM Amendment 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MDE ACM Review/Approval | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bidding of Remedial Design Contract | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remedial Design Performance | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bidding of Remedial Construction Documents | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remedial Implementation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remediation Feasibility Memorandum | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consent Order | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Exchange of Land with M-NCPPC | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DEP Responses to GLCC Questions

The Montgomery County (County) Department of Environmental Protection (DEP) received a list of questions regarding the remediation of and future land reuse at the Gude Landfill on May 5, 2013 from the Gude Landfill Concerned Citizens (GLCC). The questions were submitted via email by Keith Ligon of GLCC and on the behalf of the Derwood Station Residential Community to Steve Lezinski, Senior Engineer of DEP. The questions were grouped into the following four (4) categories: process; corrective measure options; reuse determination; and the impact of the implementation of the corrective measures on the community.

Provided below are GLCC's questions, which are numbered sequentially, and DEP's responses. DEP's responses were prepared in conjunction with EA Engineering (EA), DEP's technical support consultant for the Assessment of Corrective Measures (ACM) evaluation and report.

Process

1. GLCC access to the full ACM; before the August 1 submission to MDE.

<u>County Response</u>: The ACM Report is currently in draft format. GLCC will have access to review and comment on the complete draft of the ACM Report prior to submission to MDE. Also, following submission of the final ACM Report to MDE, DEP will post the document to the Gude Landfill Remediation webpage.

http://www6.montgomerycountymd.gov/swstmpl.asp?url=/content/dep/solidwaste/facilit ies/gude/index.asp

2. GLCC access to the Consent Order.

<u>County Response</u>: The Consent Order is currently being executed (i.e. under signature) by County and MDE representatives. Following execution of the final Consent Order, DEP will post an electronic copy of the document to the Gude Landfill Remediation webpage.

DEP Responses to GLCC Questions

3. Timetable for discussions with the GLCC and other stakeholders commence regarding the ACM during the May – August time period.

<u>County Response</u>: In GLCC/DEP Meeting No. 28, GLCC requested a meeting to discuss land reuse options regarding the Gude Landfill with County stakeholders including the County Executive in July 2013. This timing reflected a meeting one (1) month following the original submission date of the final ACM Report to MDE on June 1, 2013.

In accordance with MDE's approval received on April 24, 2013, DEP revised the submission date of the final ACM Report to August 1, 2013. Considering the revised submission date, DEP respectfully defers back to GLCC regarding the timing of the stakeholders' meeting.

DEP will assist GLCC with scheduling the stakeholders' meeting during May 2013 – August 2013.

4. Outreach/community communication schedule and plan.

<u>County Response</u>: For the immediate future, GLCC/DEP Meetings will continue on a monthly basis from May 2013 – August 2013 during the preparation and review phases of the draft ACM Report. Following the submission of the final ACM Report to MDE on August 1, 2013, DEP will tentatively schedule a larger community meeting to present the findings and recommendations of the ACM Report in September 2013 – October 2013. For the period of MDE's review of the final ACM Report, GLCC/DEP Meetings will be reviewed each month for the presentation of new content and information, and scheduled accordingly upon mutual agreement by GLCC and DEP.

Under the Consent Order currently being executed, within sixty (60) calendar days of the approval of the final ACM Report by MDE, DEP is required to hold a Public Informational Meeting to discuss the findings of the investigation and to discuss the approved remedial actions (i.e. corrective measure implementation) for the Gude Landfill.

DEP is open to accommodate other meeting frequencies and topics regarding the Gude Landfill upon request by GLCC or the community.

DEP Responses to GLCC Questions

Corrective Measure Options

5. To confirm our understanding: The options are not mutually exclusive, and it is possible that a combination of corrective measures will be employed. The "retained" options are not final, pending discussions within the County Executive and other stakeholders.

<u>County/EA Response</u>: Correct. The remedial technologies that were retained from the initial screening process as described in Section 4 of the ACM Report will be grouped into remedial alternatives. The remedial alternatives will be further evaluated in the detailed and comparative analyses in Sections 5 and 6 of the ACM Report. A draft ACM Report with Sections 1 through 8, including the Consultant's preliminary recommendation will be reviewed by DEP with the County Executive and other County stakeholders and provided to GLCC for review and comment prior to submitting to MDE.

6. County's opinion regarding the effectiveness of the remediation options to eliminate the risk of contaminants flowing into the Rock Creek system.

<u>County/EA Response</u>: The remedial technologies were evaluated during the initial screening process as described in Section 4 of the ACM Report, which included the technology's effectiveness at meeting the Remedial Action Objectives (RAOs). The remedial technologies that would be effective at achieving the RAOs were retained from the initial screening process. These remedial technologies will be grouped into remedial alternatives, which will be further evaluated in the detailed and comparative analyses in Sections 5 and 6 of the ACM Report.

The RAOs are protective of Rock Creek by requiring the prevention and/or elimination of non-stormwater surface water discharges that originate from the Gude Landfill. In addition, the RAOs require that the concentrations of contaminants that originate from the Gude Landfill, shall meet drinking water quality standards at the Landfill property boundary. Furthermore, the risk evaluation performed as part of the Nature and Extent Study (NES) indicated there are currently no risk concerns in Rock Creek related to Gude Landfill. Once the preferred remedial alternative is recommended by DEP and approved by MDE, its implementation and the associated monitoring activities will gauge its effectiveness during the proposed monitoring period.

DEP Responses to GLCC Questions

7. Is not a "full cap" that uses a synthetic barrier the industry "state of the art" remediation alternative to minimize the movement of contaminants into the groundwater?

<u>County/EA Response</u>: The installation of a geosynthetic capping system for a landfill is standard practice for modern landfills that have a geosynthetic base liner system (under the waste), which serves as a barrier to separate groundwater and the waste mass. This standard practice is also a regulatory requirement for modern landfills permitted under the Subtitle D requirements of the Resource Conservation and Recovery Act (RCRA).

A primary purpose of a capping or cover system is to prevent the infiltration of precipitation that would have the potential to generate leachate within the landfill. Landfill capping utilizing a geosynthetic capping system or an engineered soil cover system has been previously required by MDE for older (pre-RCRA era) un-lined landfills in Maryland. However, capping has not always proven to be effective at reducing groundwater contamination originating from the waste mass of a landfill. This can be the case if the subsurface waste mass of a landfill is in contact with groundwater, without a base liner.

Based on historical records and the typical waste placement practices implemented during the time of operation (1964-1982) of the Gude Landfill, it is likely that the waste mass is currently in contact with groundwater.

Capping of the Landfill with geosynthetic liner or engineered soil systems will not limit the mobility of contaminants into the groundwater from waste that is in contact with the groundwater. Capping with geosynthetic liner or engineered soil systems may reduce the downward mobility of contaminants into the groundwater from waste that is above the groundwater table, but it is not likely that the reduction will be significant enough to meet the RAOs.

DEP Responses to GLCC Questions

8. How does a partial cap operate to more effectively contain the landfill gas emissions, as a preferred alternative to a full cap?

<u>County/EA Response</u>: A primary purpose of a geosynthetic capping sytem or an engineered soil cover system is to minimize the infiltration of precipitation that would have the potential to generate leachate within the landfill. Other purposes of such systems are to improve landfill gas control and collection as well as prevent and/or eliminate non-stormwater discharges.

Partial or full capping will limit fugitive landfill gas emissions on the ground surface of the Gude Landfill. Capping will not directly affect the lateral movement of landfill gas outward from the waste mass into the soil surrounding the Landfill or the groundwater that is in contact with the waste mass or located beneath the waste. Partial and full capping may indirectly reduce the lateral movement of landfill gas into the soil and groundwater in proximity to the waste mass of the Landfill by increasing the collection efficiency of the existing landfill gas extraction system.

9. Similarly, how does a partial cap operate to more effectively contain the discharge of leachates from the landfill, as a preferred alternative to a full cap?

<u>County/EA Response</u>: Non-stormwater discharges (i.e. leachate seeps) typically occur on the side slopes of landfills, where leachate is potentially perched on a lowpermeability soil layer (e.g. soil with a high content of clay) within the landfill. In this case, the leachate would follow a lateral preferential flow path toward the landfill side slopes rather than downward through the waste mass. Therefore, a partial geosynthetic capping system or an engineered soil cover system that is placed on the side slopes of a landfill would be very effective at controlling non-stormwater discharges. Partial or full capping would eliminate human and ecological contact with leachate seeps.

Please note that each remedial technology was evaluated for its individual effectiveness at achieving all of the RAOs related to groundwater, landfill gas and non-stormwater discharges in Section 4 of the ACM Report. Also refer to the questions and responses under Item Nos. 6, 7 and 10 for additional information.

DEP Responses to GLCC Questions

10. Wasn't the landfill poorly capped to begin with? And, if so, how does a partial recapping address the overall inadequacy of the existing landfill cap?

<u>County/EA Response</u>: The Gude Landfill was closed in 1982. The vegetative soil cover system that was installed at the Landfill was constructed in accordance with the standard landfill closure practices at that time. The Landfill closure was also performed in accordance with the MDE requirements as provided under the Emergency Health Order that is attached to and referenced within the Consent Order.

The existing landfill cover system serves the purpose of separating the waste from humans and animals that may traverse are on the Landfill. Although this cover system is not an impermeable layer like a geosynthetic liner, it does serve to: divert stormwater runoff from the Landfill surface, reduce fugitive emissions of landfill gas through the Landfill surface, and helps to prevent and limit non-stormwater discharges (e.g. leachate seeps) on the Landfill surface.

Partial geosynthetic liner capping on the side slopes of the Landfill will be more effective at controlling leachate seeps than the current cap and will reduce infiltration of precipitation into the Landfill. A partial cap can also be installed and isolated to problematic areas of the Landfill.

Please note that if waste excavation (one of the remedial technologies) is implemented at the Landfill site, the side slopes will be regraded during the construction process. The regrading work (i.e. cover system improvements) will allow for: 1) the placement of a greater depth of soil on side slopes to further prevent and limit the potential for non-stormwater discharges and 2) the contouring of the side slopes to provide a greater downward slope and additional stormwater infrastructure to collect and divert stormwater runoff from the Landfill surface while reducing the potential for infiltration into the waste mass.

DEP Responses to GLCC Questions

11. Is the long-term environmental impact on the Rock Creek system not considered as an element of the ACM?

<u>County/EA Response</u>: The RAOs are protective of Rock Creek by requiring the prevention and/or elimination of non-stormwater surface water discharges that originate from the Gude Landfill. In addition, the RAOs require that the concentrations of contaminants in the groundwater, shall meet drinking water quality standards at the Landfill property boundary. Therefore, the long-term environmental impact on Rock Creek is considered in the RAOs. Also refer to the question and response included under Item No. 6.

12. What areas of the landfill are subject to the partial capping and/or waste relocation?

<u>County/EA Response</u>: The areas of the Landfill that are preliminarily subject to partial capping may include the northwest and west slopes. This is due to occurrence of historical non-stormwater discharges (i.e. leachate seeps) along the side slopes of the Landfill and the Landfill property boundary, which is the compliance point.

The areas of the Landfill that are preliminarily subject to waste relocation may include the northwest, west, southwest and south. This is due to the proximity of waste placement along the edge of the Landfill property boundary, which is the compliance point for groundwater, landfill gas and non-stormwater discharges.

Section 5 of the ACM Report will provide additional details regarding the potential areas of the Landfill site that may be subject to partial capping and waste relocation. Additionally, graphical Figures will be provided in the ACM Report to present such locations on a site plan of the Landfill.

DEP Responses to GLCC Questions

13. Does the ACM consider it necessary to block the movement of contaminants into the Derwood Station neighborhood in order to meet State mandated objectives?

<u>County/EA Response</u>: The MDE mandated RAOs for the ACM address the off-site migration of contaminants from the Gude Landfill beyond the property boundary.

The RAOs for the Landfill are protective of the Derwood Station Residential Community by requiring the concentrations of contaminants in groundwater, shall meet drinking water quality standards at the Landfill property boundary. The RAOs also require that landfill gas not exceed the Lower Explosive Limit (LEL) of 5 percent by volume for methane at the Landfill property boundary. Furthermore, the RAOs require the prevention and/or elimination of non-stormwater surface water discharges that originate from the Gude Landfill. In addition, the risk evaluation performed as part of the Nature and Extent Study for Gude Landfill indicated there are no risks to the Derwood Station residents based on the current exposure pathways.

Once the preferred remedial alternative is recommended by DEP and approved by MDE, its implementation and the associated monitoring activities will gauge its effectiveness during the proposed monitoring period at the Landfill.

Following implementation, for the remedial alternative to be considered effective, a decreasing trend of contaminant concentrations from existing levels must be achieved at the Landfill property boundary. More specifically, the decrease of contaminant concentrations must continue to below regulatory compliance limits. The hope is that following remediation and during future monitoring, contaminant concentrations in groundwater decrease below the drinking water quality standards and that those concentrations continue to decrease toward non-detect levels.

DEP Responses to GLCC Questions

Reuse Determination

14. Set a timetable to address the reuse of the landfill, in light of the retained corrective measures.

<u>County Response</u>: As discussed in previous GLCC/DEP Meetings and more recently in an email dated April 16, 2013 from Steve Lezinski of DEP to Keith Ligon of GLCC, the land reuse timeline may be impacted by the implementation and monitoring processes associated with the preferred and approved remedial alternative resulting from the ACM Report. Thus, setting a defined timeline may be difficult at this point in time. This is further explained below.

The preferred remedial alternative from DEP will be provided to MDE in the form of a recommendation along with the ACM Report on August 1, 2013. MDE will thoroughly review all aspects of the recommendation and the ACM Report, which may take six (6) to twelve (12) months. If comments are received from MDE, DEP will be required to address the comments, which may take an additional six (6) to twelve (12) months. This is a similar review process and response timeline to the NES and NES Amendment No.1.

Once MDE approves the ACM Report and DEP's recommendation, the remedial alternative, must be designed, permitted, bid and implemented (i.e. constructed) by the County in conjunction with MDE approvals in phases over multi-year periods at the Landfill. Following implementation, DEP must monitor the Landfill site and the required parameters of the remedial alternative to gauge its effectiveness over a proposed monitoring period. During the future monitoring period, it is possible that additional remedial measures and construction activities may be required at the Landfill to modify the existing remedial alternative's approach to meet the RAOs. The potential need to perform additional construction activities at the Landfill during the monitoring period may impact the land reuse timeline for certain types of land use.

During and at the conclusion of the monitoring period, data will be provided to MDE for their review of the effectiveness of the remedial alternative. MDE will affirm if the remedial alternative was effective and potentially affirm that alternative land uses for the Landfill site can be considered.

DEP Responses to GLCC Questions

15. GLCC would appreciate a technical discussion from the County's experts that would provide information regarding whether reuse is possible, the timing of any potential reuse, the viability of the reuse options presented by GLCC, the ability to employ passive vs. non-passive reuses of the landfill.

<u>County Response</u>: DEP understands GLCC needs under this information request. DEP suggests that this topic be discussed during a dedicated GLCC/DEP meeting. DEP will develop handouts and a presentation for the meeting as necessary to convey and document this information to GLCC and the community.

Impact of the Implementation of the Corrective Measures on the Community

16. Set a timetable to address the impact on the community of implementing retained corrective measures, minimizing negative impacts on the community and addressing the disamenity impact of the remediation process.

<u>County Response</u>: DEP understands GLCC needs under this information request. DEP suggests that this topic be discussed during a dedicated GLCC/DEP meeting. DEP will develop handouts and a presentation for the meeting as necessary to convey and document this information to GLCC and the community.