GOLDER

April 8, 2020 Project No. 20-136578

Debra Rossi, Remedial Project Manager
USEPA Region 3
1650 Arch Street, 3HS21
Philadelphia, PA 19103-2029

RE: MONTHLY PROGRESS REPORT – MARCH 2020 REPORTING PERIOD
DELAWARE SAND & GRAVEL SUPERFUND SITE
NEW CASTLE COUNTY, DELAWARE

Dear Ms. Rossi:

Golder Associates Inc. (Golder) prepared this monthly progress report on behalf of the Respondents for the Delaware Sand & Gravel (DS&G) Superfund Site (Site) in satisfaction of the requirements of Paragraph 4.1 of the Remedial Design Statement of Work (RD SOW) included as Appendix B of the Administrative Settlement Agreement and Order on Consent for Remedial Design (RD AOC; Docket No. CERCLA-03-2018-0116DC) executed by the United States Environmental Protection Agency (USEPA) on May 22, 2018 and effective May 29, 2018 (Settlement). The following sections provide a summary of the required reporting items under the Settlement for the above-referenced reporting period. For completeness, Section 2 summarizes activities performed during the reporting period under the 1995 Consent Decree for the Site and those anticipated during the next reporting period.

1.0 2018 RD AOC

1.1 Actions Toward Achieving Compliance with Settlement

- Performance of pre-design investigation (PDI) field activities involving drilling and monitoring well installation began on December 4, 2018[1] and concluded on April 13, 2019. Between February 1, 2019 and April 13, 2019, drill water was treated with granular-activated carbon (GAC) prior to use.
- Approval of the RDWP submitted on March 28, 2019 was received from the USEPA on March 28, 2019.
- Approval of the PDI WP and Sampling and Analysis Plan (SAP) submitted on March 28, 2019 was received from the USEPA on April 10, 2019.
- Commencement of groundwater monitoring for existing and newly installed wells began on April 22, 2019 and was completed during the week of May 20, 2019.
- Approval of the Barhole Probe Monitoring and Assessment Report submitted on April 15, 2019 was received from the USEPA on April 24, 2019.

[1] USEPA issued Partial Approval of the Pre-Design Investigation Work Plan [PDI WP] on November 30, 2018 with comments and issued Conditional Approval of the PDI WP and RDWP on February 26, 2019 with comments.

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- Approval of the PDI WP Addendum submitted on July 15, 2019 was received from the USEPA on July 29, 2019.
- Performance of additional PDI field activities involving drilling, monitoring and extraction well installation, as outlined in the PDI WP Addendum, began on September 10, 2019 and was completed on November 15, 2019. Drill water was treated with GAC prior to use.
- Performance of aquifer testing program outlined in the PDI WP and its Addendum was initiated in November 2019 and was completed on January 29, 2020.
- Conference call (pursuant to Section VII, Paragraph 13.a.3. of the RD AOC) replaced by correspondence between March 17 and 27, 2020 with USEPA, Project Coordinator and Supervising Contractor.

1.2 Data Received and/or Generated

- Data associated with the aquifer testing and groundwater monitoring performed under the Settlement were generated and/or received during the reporting period.

1.3 Deliverables Submitted to USEPA

- No deliverables were submitted during the reporting period.

1.4 Activities Scheduled for Next Six Weeks (through Mid-April 2020)

- Reduction of data from aquifer testing and updating of groundwater flow model.
- Initiation of PDI Evaluation Report preparation activities (outlining, scheduling, table preparation, etc.)
- Monthly conference call (pursuant to Section VII, Paragraph 13.a.3. of the RD AOC) will be held on April 22, 2020 with USEPA, Project Coordinator, and Supervising Contractor in conjunction with groundwater modeling discussion.
- Continued monitoring of transducers in 14 monitoring wells to observe AWC's Llangollen wellfield operations and general aquifer dynamics at and in the vicinity of the Site.

1.5 Percentage of Completion, Unresolved Delays Encountered and/or Anticipated and Efforts to Mitigate Those Delays

- Progress toward completion:
  - RDWP (Paragraph 3.1 of RD AOC SOW) – 100% complete and approved by the USEPA on March 28, 2019.
  - PDI WP (Paragraph 3.3(a) of RD AOC SOW) – 100% complete and approved by the USEPA on April 10, 2019.
  - PDI Activities as provided in the PDI WP-Revision 2 and SAP-Revision 2:
    - Phase 1 - Well Installation – 100% complete (minor demobilization items remain). Forty-seven monitoring wells and five extraction wells were installed in 2019. Two groundwater monitoring events were performed on the 33 wells installed in early 2019. Monitoring of the recently installed wells (14 monitoring and five extraction wells) occurred in January 2020.

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- Phase 2 – Aquifer Testing and Data Reduction – approximately 90% complete. This phase was initiated in late October 2019 and data reduction is ongoing at this time.
- Phase 3 – Groundwater Model Updates - 20% complete. This phase was initiated in February 2020.
- Phase 4 – Additional Investigation - 0% complete. If necessary, this phase will be initiated after completion of Phase 3.

- PDI Evaluation Report (Paragraph 3.3(b) of RD AOC SOW) - 0% complete. Report will be prepared and submitted to the USEPA after completion of Phase 3.
- Preliminary (30%) RD (Paragraph 3.4 of RD AOC SOW) – 0% complete. Report will be prepared and submitted to the USEPA after the USEPA's approval of the PDI Evaluation Report.
- Pre-final (95%) RD (Paragraph 3.5 of RD AOC SOW) – 0% complete. Report will be prepared and submitted to the USEPA after the USEPA's approval of the Preliminary (30%) RD.
- Final (100%) RD (Paragraph 3.6 of RD AOC SOW) – 0% complete. Report will be prepared and submitted to the USEPA after the USEPA's approval of the Pre-final (95%) RD.

- The constant-rate testing at well UPA-01-US-EXTR was disrupted by a disgruntled neighbor in December 2019 which delayed completion of aquifer testing until late January 2020. The Trust is evaluating potential effects to the project schedule.
- There is potential for the consequences of the COVID-19 pandemic to affect the project schedule.

1.6 Proposed and/or Approved Modifications to Work Plans and/or Schedules[2]

- Comments from the USEPA dated October 24, 2018, November 30, 2018 and February 26, 2019 and from DNREC dated October 22, 2018 with responses prepared by Golder on behalf of the DS&G Trust dated November 16, 2018 and December 7, 2018 resulted in modification of the PDI WP and SAP (both revised and submitted to the USEPA on March 28, 2019 as Revision 2 of these documents). The USEPA requested addition of well P-5U to the list of wells for cation and anion analysis in their email dated April 10, 2019. During the monthly call with the USEPA on April 25, 2019, the USEPA requested that Table A-6C be updated with this information and the final monitoring well identifications and screen intervals. The revised table was provided to the USEPA as part of the Analytical Data Summary for the April-May 2019 Groundwater Monitoring Event dated July 31, 2019.
- Comments from the USEPA dated July 29, 2019 resulted in minor modifications to the PDI WP Addendum dated July 15, 2019. A revised document will not be prepared.
- Comments from the USEPA dated October 24, 2018 and February 26, 2019 resulted in modification of the RDWP (revised and submitted to the USEPA on March 28, 2019 as Revision 2 of this document).

[2] Per Paragraph 4.2 of the RD SOW, "If the schedule for any activity described in the Progress Reports, including activities required to be described under Paragraph 4.1(d), changes, Respondents shall notify EPA of such change at least seven days before performance of the activity."

- There are no proposed or approved modifications to the RD SOW schedule at this time; however, as discussed with the USEPA on December 19, 2019, delays in the aquifer testing schedule may necessitate an extension request for submission of the PDI Evaluation Report due in May 2020. In addition, the COVID-19 pandemic and its consequences may necessitate an extension request for submission of the PDI Evaluation Report.

1.7 Community Involvement Plan[3] (CIP) Activities

- At this time, the USEPA has not requested the participation of the Respondents in community involvement activities.

2.0 ACTIVITIES UNDER 1995 CONSENT DECREE

The groundwater monitoring program performed under 1995 Consent Decree was revised as part of the SAP prepared and submitted with the PDI WP. The SAP (Revision 2; March 28, 2019) was submitted to the USEPA on March 28, 2019 with the PDI WP-Revision 2 and approved by the USEPA on April 10, 2019 with minor revisions to Table A-6C as noted above.

The USEPA requested that the DS&G groundwater monitoring events be performed coincident with the Army Creek Landfill (ACL) groundwater monitoring events. The events were coincident in October 2019 at which time both Sites collected samples for per- and poly-fluorinated alkyl substances (PFAS) and cation/anion analyses.

Proposed revisions to the groundwater monitoring program for April and October 2020 were submitted to the USEPA on March 17, 2020. The USEPA approved the changes for the April 2020 monitoring event via email dated March 27, 2020.

2.1 Performed During Reporting Period

2.1.1 Groundwater Monitoring

- Preparation and coordination for the First 2020 Semi-Annual Groundwater Monitoring Event

2.1.2 Landfill Inspections, LFG Monitoring and Mitigation System OM&M

- Performance of the First Quarter 2020 Inspection and Landfill Gas Monitoring Event
- OM&M of direct-venting system

2.2 Scheduled for Next Reporting Period (April 2020)

2.2.1 Groundwater Monitoring

- Performance of the First (March/April) 2020 Semi-Annual Groundwater Monitoring Event

2.2.2 Landfill Inspections, LFG Monitoring and Mitigation System OM&M

- OM&M of direct-venting system
- Preparation of the First Quarter 2020 Inspection and Landfill Gas Monitoring Event Report
- Preparation of the indoor air sampling report for Cirillo Brothers' Office Building

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[3] Per Paragraph 2.1(a) of the RD SOW: "In 1984, EPA developed a Community Involvement Plan (CIP) for the Site; EPA updated the CIP in 2017. Pursuant to 40 C.F.R. § 300.435(c), EPA shall review the existing CIP and determine whether it should be revised to describe further public involvement activities during the Work that are not already addressed or provided for in the existing CIP."

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- Preparation of an addendum to O&M Plan for the Inert Area and Grantham South related to changes in the monitoring and layout of the Cirillo Brothers' building

If there are any questions regarding this progress report, please do not hesitate to contact the undersigned.

Very truly yours,
Golder Associates Inc.

Theresa A. Miller

Theresa A. Miller, LSP, PG
Senior Consultant

cc: (via email) P. Boettcher, DNREC
D. Sutton, HGL
S. Mays, DS&G Trust

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