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September 3, 2026

Mr. Mike Smith, P.E.
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue
Des Moines, Iowa 50321

Subject: 2026 Semi-Annual Sampling Notification
Mahaska County Sanitary Landfill
Binns & Stevens MSWLF Unit
Permit No. 62-SDP-01-74P

Dear Mike:

SCS Engineers, on behalf of the Mahaska County Solid Waste Management Commission, is submitting herewith a summary of the 1st 2026 semi-annual sampling event for the Binns & Stevens municipal solid waste landfill unit (B&S MSWLF unit) at the Mahaska County Sanitary Landfill in general accordance with Iowa Administrative Code (IAC) 567-113.10(5) and 113.10(6).

In correspondence dated March 23, 2026 (Doc #116556), the Iowa Department of Natural Resources (DNR) stated the following:

> *Since the levels of cadmium at monitoring well MW-24 exceed both interwell and intrawell prediction limits, please initiate assessment monitoring in accordance with 567 Iowa Administrative Code 113.10(6)"a". Please provide a schedule for initiation of assessment monitoring.*

A response dated March 24, 2026 (Doc #116612), stated the following:

> *The EPA identified increasing concentrations of iron, aluminum, and sulfate, low pH, and the lack of calcareous materials as indicators of acid mine drainage, and that acid mine drainage near monitoring well DW-24 is leading to deteriorating groundwater conditions and may be contributing to the elevated cadmium concentrations. It is recommended that the acid mine drainage be identified as an alternative source, the indicated SSI for cadmium not be confirmed, and that monitoring well DW-24 continue in the detection monitoring program.*

In correspondence dated May 5, 2026 (Doc #117043), the DNR stated the following:

> *The DNR requires an evaluation of the chemical reasons for the increase in cadmium levels at monitoring well DW-24 before the DNR accepts the assertion that the increase in cadmium is the result of acid mine drainage and not the landfill.*

The May 5, 2026 correspondence directed that the 1st 2026 sampling of DW-24 be for volatile organic compounds only.

A response dated July 8, 2026 (Doc #117520), stated the following:

> *It appears that the physical change(s) caused by the construction of the landfill liner affected the groundwater chemistry. Continued monitoring is recommended to investigate this trend. It is recommended that the effect of the liner installation be identified as an alternative source, the indicated SSI for cadmium not be confirmed, and that monitoring well DW-24 continue in the detection monitoring program.*

The DNR concurred with the response in correspondence dated August 5, 2026 (Doc #117736).

Groundwater sampling was completed on March 24-25 and June 8, 2026 (the June sample was for DW-24 only), and the associated field sheets were completed. The samples were received at the laboratory in acceptable condition, meeting preservation requirements, and at appropriate temperatures. Statistical evaluation was performed using analytical data received from the laboratory. The field sheets, laboratory analytical reports, data validation documentation, and statistical output from the statistical evaluation will be included in the 2026 Annual Water Quality Report.

Statistical evaluation results for the B&S MSWLF unit's 1st 2026 semi-annual sampling event are summarized in Table 1.

Table 1
1st 2026 Semi-Annual Statistical Evaluation Summary

Monitoring Point	Monitoring Program	Inorganic Interwell SSIs	Inorganic Intrawell SSIs	Organic SSLs	Organic SSIs
UW-11	Background	Background for the detection monitoring program.			
DW-15	Background	Background for the detection monitoring program.			
DW-19	Background	Background for the detection monitoring program.			
UW-21	Background	Background for the detection monitoring program.			
DW-8	Assessment	None	NA	None	None
UW-9R	Assessment	NA (dry)	NA	NA*	None
UW-9RA	Detection	No samples available from this monitoring point.			
UW-10	Assessment	None	NA	None	1,4-Dichlorobenzene, Benzene
PZ-14	Detection	None	NA	NA	None

Monitoring Point	Monitoring Program	Inorganic Interwell SSIs	Inorganic Intrawell SSIs	Organic SSLs	Organic SSIs
DW-23	Assessment	None	NA	None	None
DW-24	Detection	NA**	NA**	NA	None
GU-1	Detection	No samples available from this monitoring point.			

* - Confidence intervals were not calculated since there have been no samples collected since March 2011.
** - VOCs only sampled during this reporting period per DNR correspondence dated May 5, 2026 (Doc #117043).
NA – Not applicable.

Due to the documented impact of acid mine drainage (AMD) on groundwater chemistry at the B&S MSWLF unit, interwell and intrawell prediction limits were used to evaluate inorganic parameters in the Hydrologic Monitoring System Plan (HMSP) monitoring wells. If statistically significant increases (SSIs) above background were indicated by interwell prediction limits, intrawell prediction limits were calculated. If SSIs were indicated by both interwell and intrawell prediction limits, an evaluation of AMD influence on the elevated metals concentration(s) will be performed in the Annual Water Quality Report. If AMD is determined to be the cause of the elevated metals concentrations, the monitoring point will remain in the current monitoring program. No SSIs were indicated during this reporting period. No VOCs were detected in monitoring well DW-24 during this reporting period.

For monitoring wells in the assessment monitoring program, organic parameters were statistically evaluated using confidence intervals/bands and Mann-Kendall trend testing. No exceedances of the groundwater protection standards (GWPS) at statistically significant levels (SSLs) were measured for the organic parameters. Indicated SSIs for organic parameters in assessment monitoring wells are not confirmed, as confirmation of the SSIs would not impact statistical conclusions.

Services were performed in general accordance with IAC 567-113.10 and the current requirements for implementation of the HMSP for the B&S MSWLF unit.

If you have any questions regarding this notification, please contact Nathan Ohrt at the number below.

Sincerely,

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CC: Mr. Joe Farris, Mahaska County Sanitary Landfill