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June 2, 2026

Khalid Al Gharrawi  
Iowa Department of Natural Resources  
6200 Park Avenue  
Suite 200  
Des Moines, IA 50321

RE: Spring 2026 Statistical Notifications  
Carroll County Landfill Western Expansion Area  
Permit No. 14-SDP-01-74P

Dear Khalid Al Gharrawi:

On behalf of the Carroll County Solid Waste Management Commission (Commission), Foth Infrastructure & Environment, LLC (Foth) is submitting the notification of Appendix II constituents detected, statistically significant increases (SSIs) over background, and statistically significant levels (SSLs) over the groundwater protection standard (GWPS) for the April 2026 sampling event at the Carroll County Landfill Western Expansion Area. In accordance with Special Provision X.4.I, the field sampling forms, laboratory report, and statistical report will be submitted with the 2026 Annual Water Quality Report (AWQR).

## **Report Priority**

No actions or activities are on hold due to the completion of Iowa Department of Natural Resources (IDNR) review or comment. No changes to the Hydrologic Monitoring System Plan (HMSP) are requested in this report.

## **Summary of the Groundwater Monitoring Network & Sampling Schedules**

The groundwater monitoring network and sampling schedules are outlined in Table 1 of Attachment 1. The groundwater monitoring locations are depicted in Figure 1 of Attachment 2.

## **Appendix II Detections**

The Appendix II constituents detected in the monitoring wells under the assessment monitoring program during the Spring 2026 sampling event are presented in Table 2 of Attachment 1. As required by 567 Iowa Administrative Code (IAC) 113.10(6)d(1), this data has been placed in the facility operating record.

## Detection Monitoring SSIs

The detection monitoring SSI summary is presented in Table 3 of Attachment 1. In April 2026, no SSIs were identified at GU-2A, MW-119RR, MW-200, MW-205, and MW-206. Details regarding the future sampling schedules are provided in Table 1 of Attachment 1.

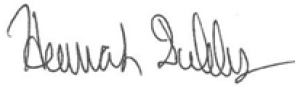
## Assessment Monitoring SSIs and SSLs

A summary of the assessment monitoring SSIs at MW-121R is provided in Table 4 of Attachment 1. No SSLs were identified at MW-121R. Details regarding the future sampling schedules are provided in Table 1 of Attachment 1.

Thank you for your attention to this matter. Please contact us at the numbers listed below if you have any questions or need additional information.

Sincerely,

Foth Infrastructure & Environment, LLC



Hannah Dubbs  
Project Environmental Scientist  
(319) 297-2065



Gina Wilming  
Senior Project Manager  
(319) 297-2055

cc: Trevor Reece, Carroll County Solid Waste Management Commission  
IDNR Field Office #4

### Attachments

Attachment 1	Tables
Attachment 2	Figure

# **Attachment 1**

## **Tables**

**Table 1**  
**Monitoring Program Implementation Schedule**  
**Spring 2026 Statistical Notifications**  
**Carroll County Landfill Western Expansion Area**  
**Permit No. 14-SDP-01-74P**

Monitoring Well	Monitoring Program	Recent Sampling Dates and Constituents <sup>(1)</sup>	Upcoming Sampling Dates and Constituents <sup>(1)</sup>		Full Appendix II Sample Dates	
		Apr. 2026	Fall 2026	Spring 2027	Previously Collected	Next Event
<b>Downgradient Monitoring Locations</b>						
GU-2A	Detection	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A	N/A
GU-4A	Detection	Dry <sup>(2)</sup>	TBD <sup>(2)</sup>	TBD <sup>(2)</sup>	N/A	N/A
MW-119RR	Detection	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A	N/A
MW-121R	Assessment	Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Jun. 2014, Aug. 2014, Oct. 2019, Sep. 2024	Fall 2029
MW-200 <sup>(3)</sup>	Detection	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Oct. 2015, Jul. 2016, Oct. 2019, Sep. 2020, Sep. 2024	N/A
MW-205	Detection	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A	N/A
MW-206	Detection	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A	N/A
<b>Background Monitoring Locations</b>						
MW-122R	Background	Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Mar. 2009, Jun. 2009, Sep. 2009, Mar. 2010, Sep. 2010, Mar. 2011, Aug. 2014, Oct. 2015, Oct. 2019, Sep. 2020, Sep. 2024	Fall 2029
MW-200 <sup>(3)</sup>	Background	Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Oct. 2015, Jul. 2016, Oct. 2019, Sep. 2020, Sep. 2024	Fall 2029

Comments:

N/A = Not Applicable

TBD = To Be Determined

<sup>(1)</sup> Appendix II locations were sampled for the Appendix I and detected Appendix II constituents in Apr. 2026, and will be sampled for Appendix I and detected Appendix II constituents in Fall 2026 and Spring 2027. In accordance with Permit Special Provision X.4.h, the next five-year resampling event for the full Appendix II list is scheduled for Fall 2029.

<sup>(2)</sup> Baseline detection monitoring will be initiated at GU-4A once the water level in the sample location is at or above the elevation of the horizontal underdrain discharge pipe connected perpendicular to the vertical sample pipe. Upcoming sampling events are contingent upon GU-4A having applicable flow for sample collection.

<sup>(3)</sup> MW-200 primarily serves as a downgradient detection monitoring location; however, MW-200 is also used to supplement the background dataset.

**Table 2**  
**April 2026 Appendix II Detections**  
**Spring 2026 Statistical Notifications**  
**Carroll County Landfill Western Expansion Area**  
**Permit No. 14-SDP-01-74P**

<b>Constituent</b>	<b>Sample Date</b>	<b>Unit</b>	<b>MW-121R (d)</b>	<b>MW-122R (b)</b>	<b>MW-200 (b)</b>
Arsenic	2026-04	mg/L	0.0087		
Barium	2026-04	mg/L	0.648	0.55	0.38
Benzene	2026-04	ug/L	0.362 J		
Chromium	2026-04	mg/L	0.00208 J	0.00229 J	
cis-1,2-Dichloroethene	2026-04	ug/L	6.6		
Cobalt	2026-04	mg/L	0.00233		
Nickel	2026-04	mg/L	0.0424		
Selenium	2026-04	mg/L		0.00216 J	
Total Suspended Solids	2026-04	mg/L	2.13		1.38 J

(d) = downgradient

(b) = background

**Table 3**  
**Summary of Well/Detected Constituent Pairs With No Previous SSIs**  
**Spring 2026 Statistical Notifications**  
**Carroll County Landfill Western Expansion Area**  
**Permit No. 14-SDP-01-74P**

Well	Constituent <sup>(1)</sup>	Units	Most Recent Result (Apr. 2026)	Background Standard <sup>(2)</sup>
<b>Detection Monitoring Locations</b>				
GU-2A	Arsenic	mg/L	0.000611 J	0.00801
	Barium	mg/L	0.226	1.05
MW-119RR	Antimony	mg/L	0.00165 J	0.0101
	Arsenic	mg/L	0.000822 J	0.00801
	Barium	mg/L	0.42	1.05
	Chromium	mg/L	0.00257 J	0.0343
	Cobalt	mg/L	0.000417 J	0.026
	Nickel	mg/L	0.00547	0.0545
	Thallium	mg/L	0.000591 J	0.001
MW-200	Barium	mg/L	0.38	1.05
	Total Suspended Solids	mg/L	1.38 J	N/A
MW-205	Arsenic	mg/L	0.00226	0.00801
	Barium	mg/L	0.0182	1.05
	Cobalt	mg/L	0.00298	0.026
	Lead	mg/L	0.00103	0.0362
	Nickel	mg/L	0.00351 J	0.0545
	Total Suspended Solids	mg/L	12.6	N/A
MW-206	Arsenic	mg/L	0.00399	0.00801
	Barium	mg/L	0.02	1.05
	Chromium	mg/L	0.0038 J	0.0343
	Cobalt	mg/L	0.00199	0.026
	Lead	mg/L	0.0013	0.0362
	Nickel	mg/L	0.00311 J	0.0545
	Total Suspended Solids	mg/L	31.5	N/A
	Vanadium	mg/L	0.00176 J	0.0921

\* Current result is above background, if confirmed by retest sample an SSI will be identified (1-of-2 retesting plan).

\*\* Current result is a confirmed SSI. Appendix II sampling will be initiated within 90 days.

Comments:

mg/L = milligram per liter

N/A = Not Applicable

SSI = statistically significant level

<sup>(1)</sup> List contains constituents detected above the laboratory method detection limit (MDL) and include J-flagged concentrations.

<sup>(2)</sup> Source of background standards are provided in the Spring 2026 statistical evaluation memo, which will be submitted with the 2026 Annual Water Quality Report. N/A = not applicable.

• No SSIs were identified at GU-2A, MW-119RR, MW-200, MW-205, and MW-206 during the Spring 2026 statistical evaluation. These locations will remain in the detection monitoring program in Fall 2026.

Details regarding the future sampling schedules are provided in Table 1.

**Table 4**  
**Summary of Ongoing and Newly Identified SSIs**  
**Spring 2026 Statistical Notifications**  
**Carroll County Landfill Western Expansion Area**  
**Permit No. 14-SDP-01-74P**

Well	Constituent <sup>(1)</sup>	Units	Most Recent Result (Apr. 2026)	Background Standard <sup>(2)</sup>	Lower Confidence Limit	GWPS <sup>(2)</sup>	Sample Dates		
							Initial Exceedance (above background)	Resample	5th Background Sample
<b>Assessment Monitoring Locations</b>									
MW-121R	Arsenic	mg/L	0.0087	0.00801	0.006	0.01	Spring 2015	N/S	Sep. 2012
	cis-1,2-Dichloroethene	ug/L	6.6	1.00	2.8	70	Spring 2014	N/S	Sep. 2012

\* For assessment monitoring locations, all current results are below background. If confirmed by a second event, location may return to detection monitoring in accordance with IAC 113.10(6)e. However, three consecutive events will be utilized to make the determination to return to detection monitoring to limit frequent fluctuation of wells moving between the detection and assessment monitoring program.

\*\* LCL has exceeded the GWPS, this well/constituent pair is now identified as an SSL.  
 Non-MSWLF Unit source of the SSI identified.

Comments:

GWPS = groundwater protection standard

LCL = lower confidence limit

mg/L = milligrams per liter

MSWLF = municipal solid waste landfill

N/S = Not resampled; SSI was declared in lieu of conducting resample.

SSI = statistically significant increase

SSL = statistically significant level

ug/L = micrograms per liter

<sup>(1)</sup> List contains constituents which have been identified as SSIs during the Spring 2026 statistical evaluation. Unless otherwise noted, all current results listed in this table are above background.

<sup>(2)</sup> Source of background standards are provided in the Spring 2026 statistical evaluation memo, which will be submitted with the 2026 Annual Water Quality Report. N/A = not applicable.

• SSIs continued to be identified for arsenic and cis-1,2-dichloroethene in Spring 2026. No SSLs were identified at MW-121R.

• The Spring 2026 statistical evaluation did not identify all Appendix II constituents below the interwell prediction limit or laboratory reporting limit for three consecutive sampling events at MW-121R. As a result, MW-121R will not exit assessment monitoring at this time. Details regarding the future sampling schedules for MW-121R are provided in Table 1.

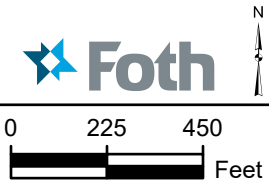
## **Attachment 2**

### **Figure**



**NOTES:**  
 1. Coordinate System: IA83-NF  
 2. Datum: NAD83  
 3. Imagery: Foth (April 2024)

LEGEND	
	HMSF Monitoring Well
	Upgradient Monitoring Well
	Water Level Only
	Underdrain
	10' Topographic Contour
	Cell Boundary
	Waste Limits
	Property Boundary



This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only.

CARROLL COUNTY SOLID WASTE MANAGEMENT COMMISSION

**FIGURE 1**

GROUNDWATER MONITORING NETWORK  
 WESTERN EXPANSION AREA

Date: FEBRUARY 2026	Revision Date:
Drawn By: DAT	Checked By: HED
Project: 26C003.00	