SCS ENGINEERS

Transmittal

West Des Moines, IA

PROJECT:	Guthrie Co,FY27-29 On-Call Support,IA 27226597.00	DATE:	10/23/2026
SUBJECT:	Guthrie County Sanitary Landfill - 39-SDP-01-73C - Justification for Proceeding to Ending Post-Closure Maintenance	TRANSMITTAL ID:	00002
PURPOSE:	For your review and comment	VIA:	Info Exchange

FROM

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TO

NAME	COMPANY	EMAIL	PHONE
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REMARKS:

Good afternoon Brian-

SCS Engineers, on behalf of Guthrie County Environmental Health, is submitting for download the Justification for Proceeding to Ending Post-Closure Maintenance for the Guthrie County Sanitary Landfill. If you have any questions or comments regarding this report, please contact me at the number below. Thank you.

SCS ENGINEERS

Nathan Ohrt
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Transmittal

DATE: 10/23/2026
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DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	10/23/2026	2026-10-23_Guthrie County Sanitary Landfill - 39-SDP-01-73C - Justification for Proceeding to Ending Post-Closure Maintenance.pdf	

COPIES:

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File No. 27226597.00

October 23, 2026

Mr. Brian Rath, P.E.
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321

Subject: Justification for Proceeding to Ending Post-Closure Maintenance
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Dear Brian:

The closure permit for the Guthrie County Sanitary Landfill (Landfill) was issued September 12, 2002 (Doc #49182), with an expiration date of September 12, 2032. Guthrie County Environmental Health intends to pursue an Environmental Covenant (EC) for the Landfill, with eventual rescission of the closure permit. The sections below review the status of the four primary areas of post-closure care under the version of Iowa Administrative Code (IAC) 567-103 in effect at the time of closure and applicable sections of the 2026 IAC 567-101, namely groundwater quality, landfill gas migration, leachate management, and final cover condition.

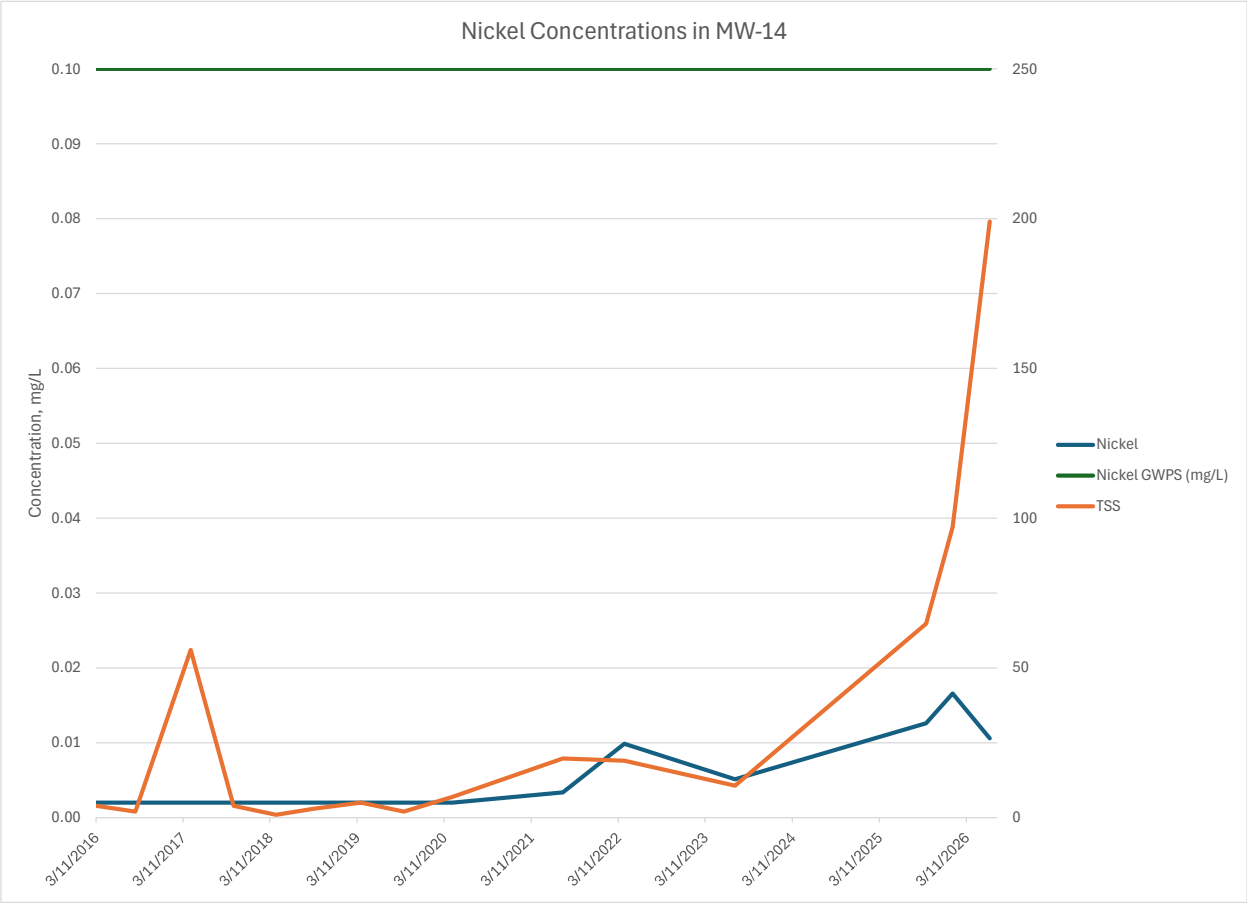
Groundwater Quality

Historical analytical groundwater data from March 2016 through June 2026 were reviewed to evaluate the groundwater quality associated with the Landfill. Review comments are provided below.

Arsenic and cobalt in monitoring well MW-16 have been measured at statistically significant levels (SSLs) above the groundwater protection standards (GWPSs) since 2011. Mann-Kendall trend analysis included in the 2026 Annual Water Quality Report, submitted October 12, 2026 (Doc #118260), indicated arsenic concentrations are steady and cobalt concentrations are trending downward in monitoring well MW-16. As stated in the submittal of well installation documentation dated November 13, 2020 (Doc #98927), monitoring well MW-20 was installed to define the area of groundwater impact measured downgradient of monitoring well MW-16. The DNR concurred with this objective in correspondence dated December 16, 2020 (Doc #99140). Monitoring results for arsenic or cobalt have not exceeded the reporting limits at monitoring well MW-20 since installation in 2021.

Monitoring well MW-14 had a statistically significant increase (SSI) above background for nickel measured in the last three statistical evaluations (2024-2026). However, the last three total suspended solids (TSS) concentrations in samples collected from monitoring

well MW-14 (1 in 2025 and 2 in 2026) are the highest in the period of record dating back to 2016. Elevated TSS concentrations likely contribute to elevated nickel concentrations in monitoring well MW-14. It is recommended not to confirm the nickel SSIs due to the elevated TSS concentrations. The highest measured nickel concentration was less than 17% of the groundwater protection standard (GWPS) (0.1 mg/L). The graph below shows that nickel concentrations were not measured above the reporting limit from 2013 until TSS began increasing in 2021 and that the measured concentrations were well below the GWPS. The June 2026 nickel concentration was 0.0106 mg/L, which exceeded the prediction limit of 0.0098 mg/L by 0.0008 mg/L.



Volatile organic compound (VOC) detections during the review period were measured exclusively in assessment monitoring wells MW-3 and MW-12 and corrective action monitoring well MW-16. No concentrations exceeded a GWPS; in fact, a single concentration of vinyl chloride in monitoring well MW-16 in 2017, which was also the only detection above the reporting limit in the well, was the only VOC concentration more than half of the corresponding GWPS. No VOCs have been detected above laboratory reporting limits in monitoring wells MW-5, MW-14, and MW-19; VOCs have not been analyzed in these monitoring wells since 2020.

Based on concentrations below regulatory standards (GWPSs based on statewide standards or site-specific concentrations, as applicable), it appears that groundwater quality associated with the Landfill is generally stable and ongoing monitoring is not necessary.

Landfill Gas Migration

The landfill gas monitoring network for the Landfill consists of seven structures and four subsurface methane monitoring points: LFGW-1, LFGW-2, LFGW-3, and LFGW-4.

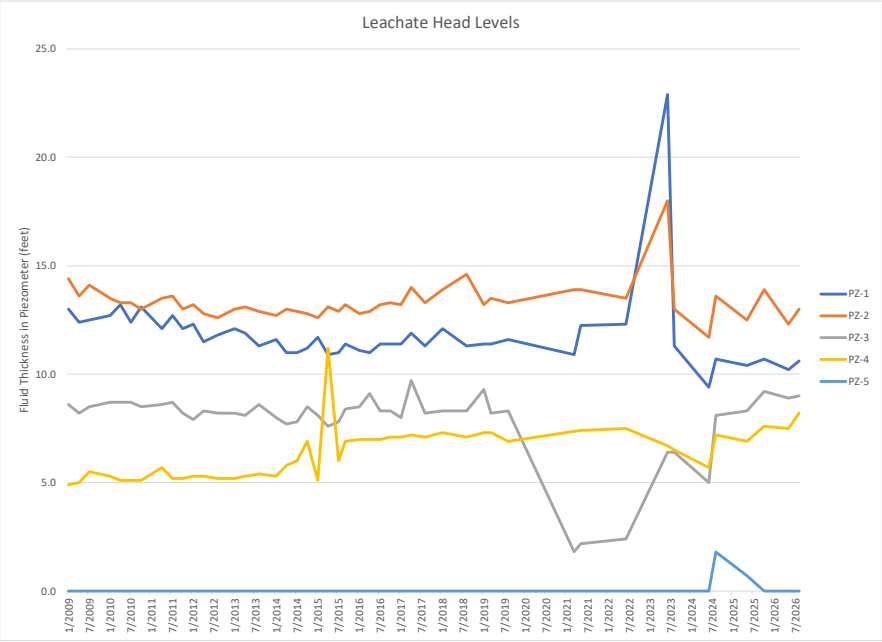
The subsurface landfill gas probes were installed in October 2020 and are monitored semi-annually. Apart from a single detection of 3% of the lower explosive limit (LEL) in LFGW-2 measured in March 2025, no methane has been detected in the gas probes. No methane has been detected in the facility structures.

Based on the above review, it appears that landfill gas monitoring is no longer necessary. Guthrie County staff should consider continuing monitoring of structures for methane even after rescission of the Landfill closure permit as a precaution.

Leachate Management

Special Provision X.6. of the closure permit states that Environmental Health is conditionally exempt from providing and implementing a leachate control system plan for the Landfill.

Leachate is measured by Landfill staff, with the results reported in the Annual Water Quality Reports. A biannual measurement frequency was approved in correspondence dated March 20, 2018 (Doc #91830). Leachate thicknesses have remained generally stable as shown in the graph below. Uncharacteristic measurements were followed by prompt returns to typical thicknesses.



Engineering inspection reports from 2016 through 2026 were reviewed. Leachate seeps noted in the reports were addressed by placing fabric and erosion stone over the affected area (Docs #113132 and #113229). The 2024 through 2026 reports stated that no leachate seeps were observed.

Final Cover Condition

The Landfill is inspected annually by SCS Engineers staff and reported to the DNR. If maintenance is necessary, Landfill staff perform the maintenance. The final cover will be maintained in perpetuity.

During the most recent inspection, performed on March 17, 2026 and reported on April 30, 2026 (Doc #117008), the following items related to the cap were noted:

- Vegetation was well-established and in good condition. Areas of sparse vegetation noted in previous inspections were not observed.
- A few small trees were observed along the northwest slope of the cap. Landfill staff planned to remove the trees in spring 2026.
- No erosion was observed.
- No ponding was observed.
- No leachate seeps were observed.

Summary

- **Groundwater Quality:** Historical data from 2016 through 2026 indicate arsenic and cobalt and SSLs above the GWPS in MW-16 with steady to declining concentrations, arsenic and cobalt concentrations below reporting limits at monitoring well MW-20, and no VOC GWPS exceedances.

- **Landfill Gas Migration:** Gas detections are absent across the subsurface and structure monitoring networks except for a single measurement of 3% of the LEL in LFGW-2 in March 2025.

- **Leachate Management:** The facility is conditionally exempt from providing a leachate control system plan. Leachate thicknesses have remained generally stable since 2009. No leachate seeps have been observed in the three most recent engineering inspections (2024-2026).

- **Final Cover Condition:** The Landfill final cover is inspected annually, maintained as needed, and will continue to be maintained in perpetuity.

Based on the above discussion, it appears appropriate to pursue an EC for the Landfill. Environmental Health requests a review and comment regarding the DNR's position regarding the appropriateness of pursuing an EC at this time.

If you have any questions regarding this request, please contact Nathan Ohrt at (319) 331-9613.

Sincerely,

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CC: Mr. Jotham Arber, Guthrie County Environmental Health