

January 14, 2026
File No. 27224531.00

Mr. Mike Smith, P.E.
Department of Natural Resources
Land Quality Bureau
6200 Park Avenue, Suite 200
Des Moines, IA 50321

Subject: Response to DNR Comments
Construction Documentation Report Phases 5 and 6 Construction
Wayne-Ringgold-Decatur County Sanitary Landfill
Permit No. 27-SDP-01-75P

Dear Mike:

SCS Engineers, on behalf of the Wayne-Ringgold-Decatur County Solid Waste Management Commission (Commission), appreciates your timely review of the Construction Documentation Report for Phases 5 and 6 Construction at the Wayne-Ringgold-Decatur County Sanitary Landfill (Landfill). There were two comments from your review. We have addressed each of those below.

Comment 1.

The report indicates that 1-inch clean limestone rock for bedding of the leachate pipe on the bottom of the cell and on the sideslope was used. The Request for Approval to Construct Phases 5 and 6, dated March 24, 2025, indicates in section 2.2.4 that the bedding rock shall consist of 1-1/2 inch minus river gravel. Please evaluate if the bedding rock used is chemically compatible with leachate.

Response 1.

The concern with limestone is that since it is calcareous that it can dissolve in acidic leachate, thereby altering the system chemistry. Landfill staff collect an annual leachate sample for analysis. Results over the last five years include a pH measured in the laboratory. Results of those measurements are included in the annual leachate control system performance evaluation reports and summarized in the table below.

Sample Date	pH
2025.03.11	8.0
2024.03.19	7.9
2023.04.04	8.1
2022.05.04	7.9
2021.03.17	7.2
2020.03.11	7.7



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Based on the results, the leachate tends to be alkaline in nature, therefore minimizing the potential reaction with the limestone causing it to dissolve. As required by Iowa Administrative Code 567-113.7(5)b.(5), cleaning of the leachate lines will occur at least once every three years.

Comment 2.

A picture of the bedding rock indicates that the material is angular. The report indicates that a 20 ounce per square yard geotextile was used. The Request for Approval to Construct Phases 5 and 6, dated March 24, 2025, indicates in section 2.2.4 that a geotextile of at least 30 ounces per square yard would be used. Please evaluate that puncture protection is achieved.

Response 2.

The puncture protection calculation was run for the permitted site conditions and target waste density and it was determined that the 20 oz/sy geotextile placed achieves the required puncture protection.

If you have any questions regarding any of the information listed above, please reach out to us at the contact information listed below.

Sincerely,



Chris Calhoun
Project Professional
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CLC/CTC/MBS

cc: Sheila Caldwell and Doug Collier, WRD Sanitary Landfill



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ENGINEER'S CERTIFICATION

 <i>Morgan B. Sykes</i>	<p>I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER LAWS OF THE STATE OF IOWA.</p> <p><u>01/14/2026</u></p> <p>MORGAN B SYKES DATE LICENSE NUMBER 17859 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2027</p> <p>PAGES OR SHEETS COVERED BY THIS SEAL: Pages 1-2</p>
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