HLW Engineering Group
Engineering Management

September 22, 2025

Michael W. Smith, P.E.
Environmental Engineer Senior
Iowa Department of Natural Resources
6200 Park Avenue Suite 200
Des Moines, Iowa 50321

RE: SDP PERMIT RENEWAL
SOUTH DALLAS COUNTY SLF
IDNR PERMIT NO. 25-SDP-01-75P
HLW PN 6045-23A.310

Dear Mr. Smith:

Enclosed for review and approval is the completed IDNR Form 50 for the South Dallas County Sanitary Landfill and documentation supporting the permit renewal application. The SDP Permit for the South Dallas County Sanitary Landfill expires on January 11, 2026.

Please let me know if you have any questions.

Respectfully Submitted,
HLW Engineering Group

Douglas J. Luzbetak, P.E.
Project Manager

cc: Mike Fountas, Director, South Dallas County SLF (*1 hard copy, electronic copy*)

SOUTH DALLAS COUNTY SANITARY LANDFILL

2025 MUNICIPAL SOLID WASTE PERMIT RENEWAL

IDNR PERMIT NO. 25-SDP-01-75P

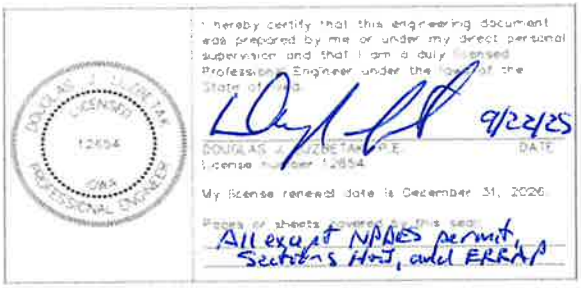
HLW Engineering Group, LLC
204 West Broad Street, PO Box 314
Story City, Iowa 50248
(515) 733-4144

HLW Project Number 6045-23A

2025 MUNICIPAL SOLID WASTE LANDFILL PERMIT RENEWAL

SOUTH DALLAS COUNTY SANITARY LANDFILL

IDNR PERMIT NO. 25-SDP-01-75P



Prepared by
HLW Engineering Group, LLC
Consulting Engineers
Story City, Iowa 50248

IOWA DEPARTMENT OF NATURAL RESOURCES

Municipal Solid Waste Landfill

PERMIT APPLICATION FORM 50

☐ New Permit
☒ Permit Renewal (permit number) 25 - SDP - 01 - 75P MLF
☐ Closure Permit

SECTION 1: PERMIT APPLICATION REQUIREMENTS

Owner of site

Name: South Dallas County Landfill Agency Phone: 515-993-3148
Address: PO Box 263 Fax: NA
City, State, Zip: Adel, IA 50003 E-mail: sdclandfill@gmail.com

Certified Operator Responsible for Operation at Facility

Name: Mike Fountas Phone: 515-993-3148
Address: PO Box 263 Fax: NA
City, State, Zip: Adel, IA 50003 E-mail: mikesdclandfill@gmail.com

Permit Applicant

Name: South Dallas County Landfill Agency Phone: 515-993-3148
Address: PO Box 263 Fax: NA
City, State, Zip: Adel, IA 50003 E-mail: sdclandfill@gmail.com

Design Engineer (PE)

Name: Douglas J. Luzbetak, P.E. Phone: 515-733-4144
Address: 204 W. Broad, PO Box 314 Fax: 515-733-4146
City, State, Zip: Story City, IA 50248 E-mail: dluzbetak@hlwengineering.com
Iowa Engineer License #: 12654 Expiration Date: 12/31/26

Responsible Official for the Facility

Name: Shirley McAdon, Chair Phone: 515-993-3148
Address: PO Box 263 Fax: NA
City, State, Zip: Adel, IA 50003 E-mail: skmcadon@centurylink.net

Agency and Responsible Official of Agency Served (if any)

Name: Shirley McAdon, Chair Phone: 515-993-3148
Address: PO Box 263 Fax: NA
City, State, Zip: Adel, IA 50003 E-mail: skmcadon@centurylink.net

Facility

Name: South Dallas County Sanitary Landfill
Address: 2000 Main St, PO Box 263 City, State, Zip: Adel, IA 50003
Legal Description:
See SECR in 2015 Permit Renewal Documentation (Doc #82435)

Landfill is part of the following solid waste comprehensive planning area:

Planning Area Name: South Dallas County Landfill Agency Service Area within the Metro Waste Authority Planning Area
Date of Last Approved Plan: 9/20/24

Service area of the landfill (include unincorporated areas and out of state generators):

All cities and the unincorporated area in Polk County; the cities of Carlisle, Hartford, and Norwalk in Warren County; the cities of Mingo and Prairie City in Jasper County; the city of Jefferson in Greene County and the cities of Adel, Dawson, Linden, Minburn, Perry, Redfield, and Waukee and the unincorporated area in Dallas County.

Population Served: 625,231

SECTION 2: PERMIT APPLICATION SUPPORTING DOCUMENTATION

PLANS AND SPECIFICATIONS

Checking the appropriate boxes below certifies that the documents submitted in conjunction with this application form are complete and in compliance with the applicable chapters of the Iowa Administrative Code. While some of the documents below may have been submitted previously, updated copies of each are required to be provided with each permit renewal application, unless a prior document remains current and is identified by Doc ID#, Section, and Page.

Required Plans and Specifications

☒ Executive Summary

An executive summary shall address the following:

- Summary of modifications, if any, to the approved plans and specifications that occurred during the current permit cycle.
- Summary of each special provision of the current permit to determine if it is to remain the same, be revised or be removed.
- Provide documentation and certification as required for new permit amendment requests, if any.
- Provide documentation and certification as required for equivalency review requests, if any.
- Provide documentation and certification as required for new variance requests from Iowa Administrative Code requirements, if any.

☒ An organizational chart in accordance with Iowa Administrative Code 567 paragraph 113.5(1)"b".

No Revision Required - See Doc ID#, Section, and Page: _____

☐ A site exploration and characterization report for the facility that complies with the requirements of subrule 113.6(4).

No Revision Required - See Doc ID#, Section, and Page: 82435

☒ Design plans and specifications for the facility, and quality control and assurance plans, that comply with the requirements of rule 113.7(455B).

No Revision Required - See Doc ID#, Section, and Page: _____

☒ A development and operations (DOPS) plan for the facility, an emergency response and remedial action plan (ERRAP), and proof of MSWLF Operator Certification that comply with the requirements of rule 113.8(455B) .

No Revision Required - See Doc ID#, Section, and Page: _____

☒ An environmental monitoring plan that complies with the requirements of rules 113.9(455B) and 113.10(455B).

No Revision Required - See Doc ID#, Section, and Page: _____

☐ The project goals and time lines, and other documentation as necessary to comply with subrule 113.4(10) and other requirements of the Department if an RD&D permit is being requested or renewed.

No Revision Required - See Doc ID#, Section, and Page: _____

☒ Proof of financial assurance in compliance with rule 113.14(455B).

No Revision Required - See Doc ID#, Section, and Page: _____

☒ A closure and postclosure plan that complies with the requirements of rules 113.12(455B) and 113.13(455B).

No Revision Required - See Doc ID#, Section, and Page: 98519

☒ Comprehensive plan requirements. Attach a copy of the most recent comprehensive plan approval or amendment letter.

No Revision Required - See Doc ID#, Section, and Page: _____

In addition to the documents required above, the permit holder shall comply with the implementation plan requirements of subrule 113.2(9), the public notice requirements of subrule 113.4(12), and the record-keeping and reporting requirements of rule 113.11(455B).

If the department finds the permit application information to be incomplete, the department shall notify the applicant of that fact and of the specific deficiencies. If the applicant fails to correct the noted deficiencies within 30 days, the department may reject the application and return the application materials to the applicant. The applicant may reapply without prejudice.

SECTION 3: APPLICANT SIGNATURE

Signature of Permit Applicant:  **Date:** 9-22-25

Printed Name: Michael Fountas **Title:** Director

Applications for sanitary disposal projects must be accompanied by the plans, specifications and additional information required by the applicable solid waste rules under Iowa Administrative Code.

Send completed applications with attached information to the DNR project officer via email or file sharing platform.

For questions concerning this application contact Brian Rath at 515-537-4051, brian.rath@dnr.iowa.gov

SECTION A

Executive Summary

EXECUTIVE SUMMARY

Summary of Modifications to the approved Plans and Specifications:

Numerous modifications have been made to the approved Plans and Specifications during the current permit cycle. These changes to date are listed at the end of the SDP Permit Revision dated October 10, 2023. The following have been modified and included in this permit renewal documentation:

An updated Organizational Chart is included in Section B.

A Site Exploration and Characterization Report was included in the 2015 Permit Renewal Documentation (Doc #82435). The 2015 Permit Renewal Documentation was approved in the SDP Permit dated December 30, 2015. The approved Site Exploration and Characterization Report is still applicable.

Updated design plans and specifications, a current Scale Certificate, and an updated Quality Control and Assurance (QC&A) Plan are included in Section D.

An updated Development and Operations Plan along with an updated Emergency Response and Remedial Action Plan and updated Operator Certifications is included in Section E.

An updated Environmental Monitoring Plan is included in Section F.

Current proof of Financial Assurance is included in Section H.

Updates to the approved Closure/Post-Closure Plan are included in Section I.

Summary of each Special Provision of the existing SDP Permit:

1. This provision should be updated to include the September 20, 2024 approval of the 9th Round Solid Waste Comprehensive Plan update for the "South Dallas County Landfill Agency Service Area within the Metro Waste Authority Planning Area". Documentation on the approval is included in Section J.
2. A new Development and Operations Plan is included in Section E of this permit renewal documentation. The current Emergency Response and Remedial Action Plan (ERRAP) is being submitted in Appendix 2 of Section E.
3. This provision should be updated to remove MW-16 from the Hydrologic Monitoring System Plan (HMSP) as per the Environmental Monitoring Plan (EMP) included in Section F of this permit renewal documentation.
4. No changes
5. This provision should be updated to revise the deadline for the submission of the annual gas monitoring results From January 31 to February 28 as per the Gas Monitoring System Plan (GMSP) in the EMP included in Section F of this permit renewal

documentation.

6. No changes.
7. No changes.
8. No changes.
9. No changes.
10. No changes.
11. No changes.
12. No changes.
13. Updates to the approved Closure/Postclosure Plan are included in Section I of this permit renewal documentation.

Summary of each Permit Amendment:

No amendments have been issued during this permit period as IDNR has issued Permit Revisions to replace permit amendments. The date of each Permit Revision, brief comments on which Special Provision(s) were modified, replaced, added, removed, etc. with each Permit Revision, and the location in the Permit Revision for the modifications, replacements, additions, removals, etc. are included at the end of the SDP Permit Revision dated October 10, 2023. All of these items have been incorporated into the SDP Permit.

Summary of new Permit Amendment Requests:

None at this time.

Summary of Equivalency Review Requests:

None at this time.

Summary of new Variance Requests:

None at this time.

SECTION B

Organizational Chart

SOUTH DALLAS COUNTY LANDFILL AGENCY

Organization Chart

September 2025

Director
Mike Fountas

Operator	Operator	Operator	Gate Attendant
Ryan Moorhead	Owen Wagner	Jared Putney	Michael Chadwick

SECTION C

Site Exploration and Characterization Report

SITE EXPLORATION AND CHARACTERIZATION REPORT

A Site Exploration and Characterization Report was included in the 2015 Permit Renewal Documentation (Doc #82435). The 2015 Permit Renewal Documentation was approved in the SDP Permit dated December 30, 2015. The approved Site Exploration and Characterization Report is still applicable.

SECTION D

Design Plans and Specifications
Quality Control and Assurance Plans

DESIGN PLANS AND SPECIFICATIONS
QUALITY CONTROL AND ASSURANCE PLAN

113.7(1) Predesign Meeting with the Department

Predesign meetings will be scheduled as applicable. If designs are in general conformance with the rules and previously submitted documentation, a predesign meeting may be not be necessary.

113.7(2) Plans and Specifications

Plans and specifications for all MSWLF units will be submitted to the IDNR for review prior to construction. Submittals to IDNR for new MSWLF units will include a Quality Control and Assurance Plan, reference to subgrade settlement calculations, leachate generation calculations, and other applicable documentation.

Figures showing typical future landfill layout, development, and construction details are included in Appendix 1 of this Section.

113.7(3) General Site Design and Construction Requirements

The facility currently meets all requirements in this subrule. A copy of the current scale license is included in Appendix 2 of this Section.

113.7(4), MSWLF Unit Subgrade

The general requirements for the subgrade of MSWLF units are discussed in the Quality Control and Assurance (QC&A) Plan included in Appendix 3 of this Section.

MSWLF units will be designed so settlement or swell of the subgrade does not cause or contribute to failure of the liner and/or leachate collection system. Subgrade settlement calculations will be submitted with plans and specifications for new MSWLF units if applicable. If subgrade conditions, final grades, and waste elevations are similar to those in MSWLF units that have previously had subgrade settlement calculations submitted, the previous calculations will be referenced and the calculations not necessarily repeated for each new MSWLF unit.

113.7(5) MSWLF Unit Liners and Leachate Collection Systems

a. Liner Systems
   (1) The current plan is for all future solid waste disposal areas to be constructed with Subtitle D compliant composite liners.

b. Leachate Collection System

(1) The leachate collection system will be designed and constructed to function for the entire active life of the facility and the postclosure period.

(2) The leachate collection system will be constructed with HDPE piping. HDPE is resistant to the majority of chemicals typically found in leachate from a municipal waste landfill. Information regarding the chemical resistance of HDPE piping was included in the "2011 Comprehensive Facility Design" (Doc #64681). Calculations for the maximum pipe loading anticipated at this site were included in the "2011 Comprehensive Facility Design" (Doc #64681). These calculations show that 6" diameter SDR 11 HDPE pipe meets manufacturer's recommendations for ring deflection and wall buckling. Additional documentation will be provided if the maximum anticipated waste depth is exceeded in future development areas.

(3) The leachate collection system has been and will continue to be designed to maintain less than a 12 inch depth of leachate on the liner. The low point of the leachate collection system has been constructed previously and has leachate measuring devices to measure the depth of leachate on the liner in both Phases 1 and 3 at the locations shown on Figure 2 in Appendix 1 of this Section.

The leachate head measuring points have small diameter plastic tubing installed inside a protective well casing. The liquid level is measured by pressurizing the tubing with a handheld pump or portable air tank. Any recorded pressure on the tubing will represent a buildup of water head in the tubing and the pressure reading will be converted to inches of water and recorded.

Leachate head piezometers will also be installed in future disposal areas to monitor leachate head on the liner as warranted.

(4) Leachate recirculation was initially approved in Permit Amendment #10 dated May 17, 2013. The leachate is recirculated in disposal areas with Subtitle D composite liners (Phases 3 and 4) in accordance with the permit amendment. Leachate recirculation volumes are included in the Leachate Control System Performance Evaluation Report included in the Annual Water Quality Report.

(5) The leachate collection pipe will have a diameter of at least 6 inches to allow cleaning activities to occur throughout the life of the pipe. Long radius bends and sweeps will be used at alignment changes as necessary to maintain access to the piping.

(6) The combination of the 6" diameter leachate collection pipe, the clean rock backfill in the leachate collection pipe trench, and the tire derived aggregate or clean sand drainage layer material will minimize the potential for clogging of the leachate collection system due to mass loading. Clogging due to mass loading is typically minimized if the drainage layer and rock backfill around the leachate pipe are not saturated for long periods of time and if low saturated leachate heights are maintained. The leachate collection system is designed to limit leachate levels to less than 12" above the top of liner elevation to maintain low saturated leachate levels. The drainage layer in future expansion aeras will be covered with a Reinforced Landfill Cover upon installation to further reduce the possibility of elevated liquid levels in the drainage layer material. The use of large diameter, relatively uniform gravel as the pipe bedding also minimizes the potential for biological clogging in the leachate collection system.

(7) The drainage layer will consist of a high hydraulic-conductivity material at least 12 inches in depth with a hydraulic conductivity of at least $1x10^{-2}$ cm/sec. Tire derived aggregate or clean sand has been utilized for the drainage layer during past expansion projects. Clean sand will be used for the drainage layer in future construction, the sand will meet the hydraulic conductivity specified above and have less than 5% by weight passing a #200 sieve. Drainage layer material will have hydraulic conductivity and gradation verified in the laboratory before use is allowed. Laboratory hydraulic conductivity and gradation tests will be submitted to IDNR in the final QC&A Report.

(8) No manholes are proposed to be placed on the liner.

(9) It is not anticipated that the leachate drainage and collection system will be used for long term leachate storage. There may be occasions when repairs or maintenance are required on the leachate collection and/or conveyance system that will require leachate to be temporarily stored within the lined area of the landfill.

(10) Leachate conveyance, storage, and management structures outside of the solid waste boundary shall have containment structures or countermeasures to meet this requirement. Dual walled piping, bentonite/sand backfill, AquaBlok sealing compound, and other specialized backfill will be utilized to meet this requirement.

(11) Leachate is collected by two methods at the South Dallas County Sanitary Landfill, in leachate piping installed as a part of the Subtitle D compliant

development, and in 6 leachate extraction wells in previously closed landfilling areas (5 in the NE Area and 1 in the SW Area). The locations of the various leachate collection/conveyance elements are shown on Figure 2 in Appendix 1 of this Section. Note that the leachate collected from the different areas is not metered separately.

Leachate collected from the Subtitle D compliant areas is conveyed to a leachate pump station north of Phase 1. From the leachate pump station, the leachate is pumped through a single walled force main (within Subtitle D compliant lined landfilling areas) or single walled force main backfilled with a 50:50 sand/bentonite mixture (outside of Subtitle D compliant lined landfilling areas) to the leachate valve pit. At the leachate valve pit the leachate is combined with leachate from the leachate extraction wells and either conveyed to the City of Adel Sanitary Sewer System through a force main for treatment and disposal or directed to an underground leachate storage tank. The site also has two underground leachate storage tanks with a total capacity of 20,000 gallons. The leachate treatment agreement with the City of Adel is included in Appendix 4 of this Section.

Leachate generation calculations for the Phase 5 Expansion, which included estimated contributions for the Subtitle D lined areas as well as the leachate extraction wells, were submitted to IDNR on June 23, 2021 (Doc #100725) and approved by IDNR in the SDP Permit Revision dated July 14, 2021. Leachate collection volumes will be revisited at least annually (in the Leachate Control System Performance Evaluation Report included in the Annual Water Quality Report). The leachate generation rates and calculations will also be reviewed and updated as needed prior to the construction of any additional disposal areas.

(12) The leachate collection system is equipped with valves to allow for the control of leachate flows during site repairs, maintenance, or emergency conditions.

(13) All weather access to the various components of the leachate collection system will be maintained.

(14) A Leachate Control System Performance Evaluation Report will be provided in the Annual Water Quality Report for the facility.

113.7(6) Quality Control and Assurance Programs

A general Quality Control and Assurance (QC&A) Plan is contained in Appendix 3 of this Section. The QC&A Plan outlines the steps that will be taken to conform to the provisions of

subrule 113.7(6). A QC&A Plan will be submitted with the plans and specifications for each new waste disposal area for IDNR review.

113.7(7) Vertical and Horizontal Expansions of MSWLF Units

Future designs will include some disposal capacity over existing unlined MSWLF units. These "abutment" areas will be constructed with a Subtitle D compliant composite liner in accordance with 113.7(5)"a"(1) and Figure 3 in Appendix 1 of this Section.

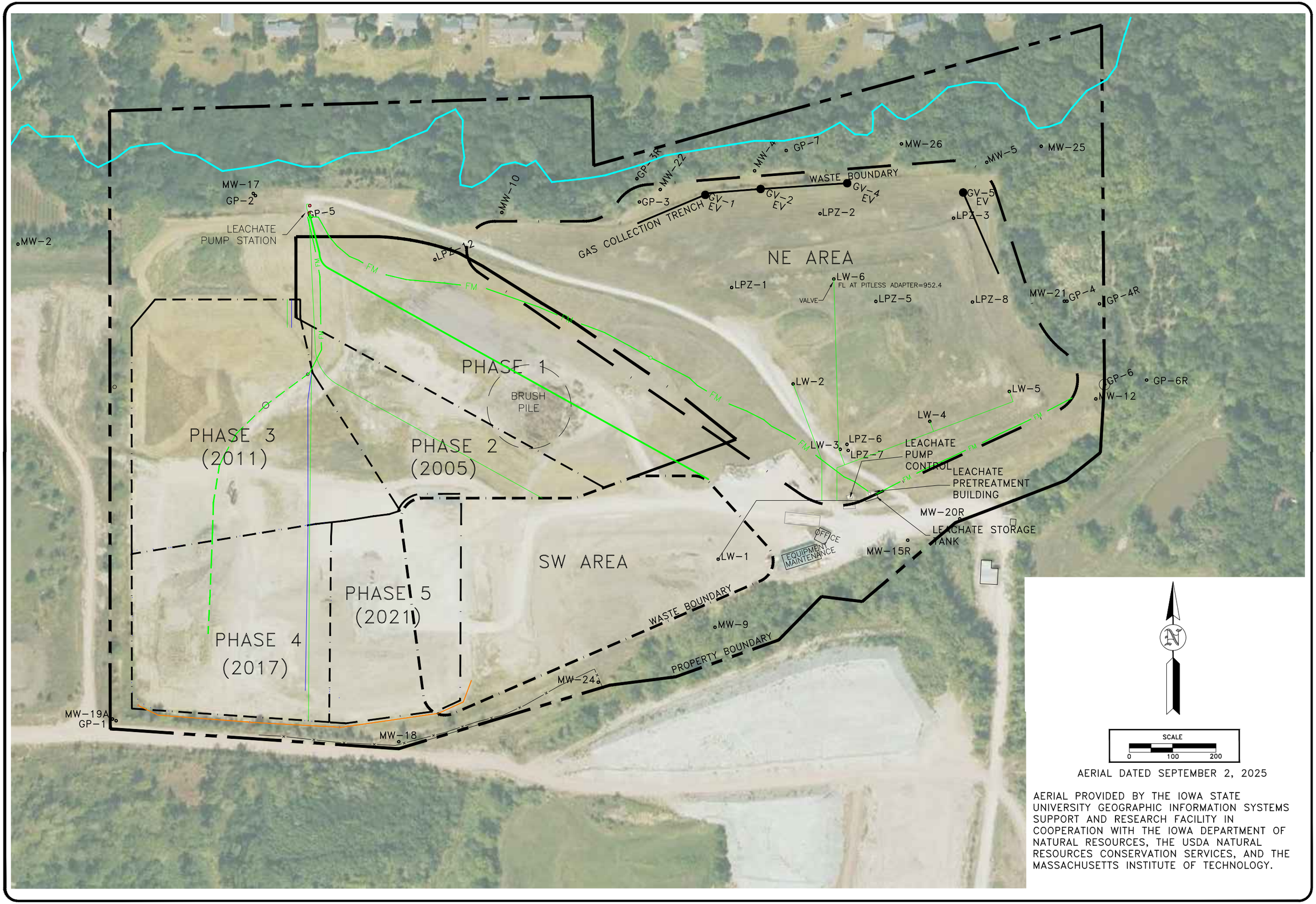
113.7(8) Run-on and Runoff Control Systems

a) A run-on control system will be utilized to prevent flow onto the active portion of the landfill. The run-on control system will be designed to prevent flow onto the active portion of the landfill during the peak discharge from a 24-hour, 25-year storm. A runoff control system will be utilized to collect and control runoff. The runoff control system will be designed to collect and control at least the water volume resulting from a 24-hour, 25-year storm. Run-on and runoff control systems will consist of berms, diversions, terraces, drop pipes, sediment basins, and other practices to control surface water at the site.

b) Any runoff that comes into contact with solid waste will be contained and treated as leachate. Berms and diversions will be utilized to control run-on and runoff at the active portion of the landfill.

APPENDIX 1

Figure List



AERIAL DATED SEPTEMBER 2, 2025

AERIAL PROVIDED BY THE IOWA STATE UNIVERSITY GEOGRAPHIC INFORMATION SYSTEMS SUPPORT AND RESEARCH FACILITY IN COOPERATION WITH THE IOWA DEPARTMENT OF NATURAL RESOURCES, THE USDA NATURAL RESOURCES CONSERVATION SERVICES, AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

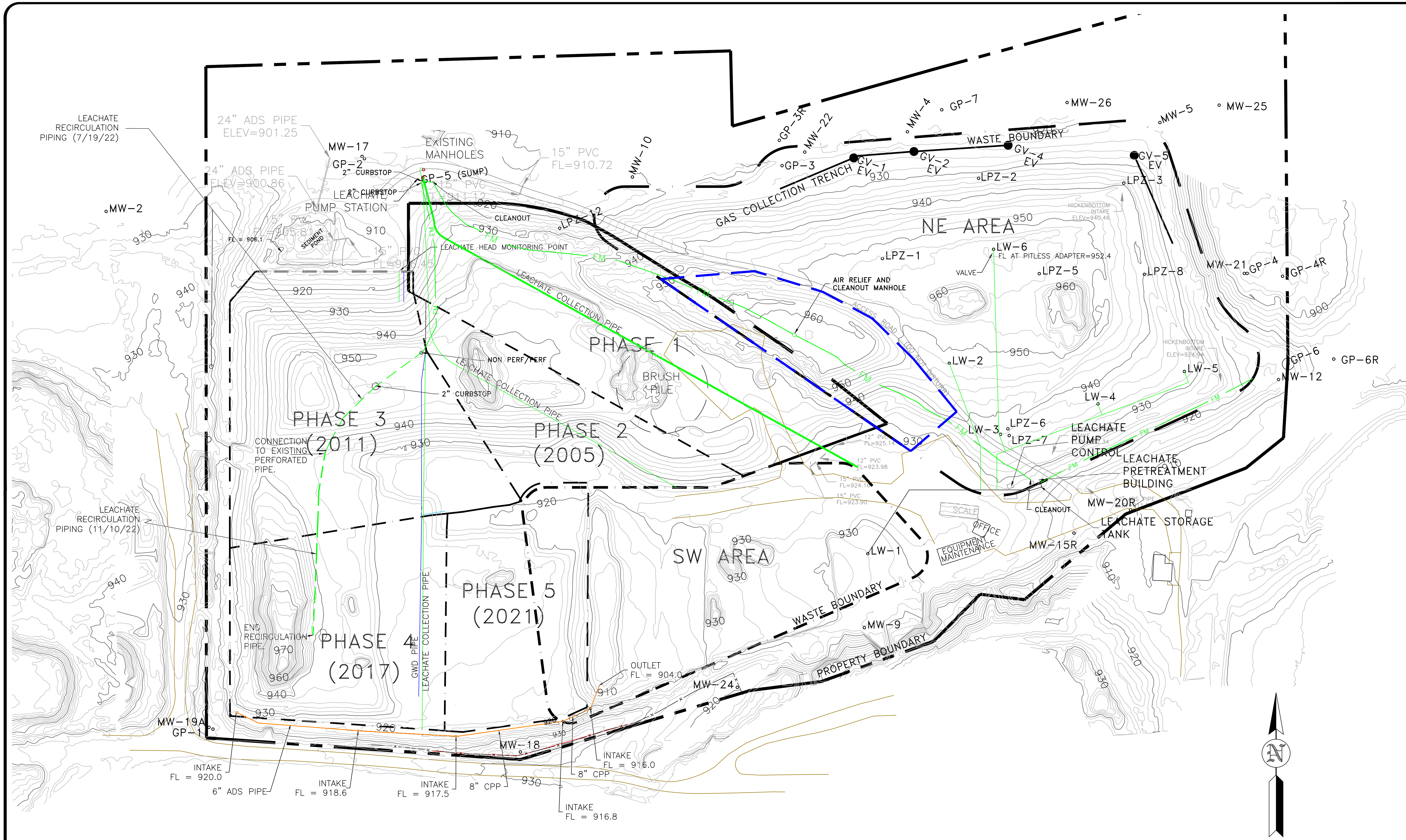
OVERALL SITE VIEW
2025 PERMIT RENEWAL
SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA

FIGURE: 1

REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6045-23A	DATE 9/16/25

HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

HLW Engineering Group


LEACHATE RECIRCULATION PIPING (7/19/22)
24" ADS PIPE ELEV=901.25
24" ADS PIPE ELEV=900.86
MW-17
GP-2
2" CURBSTOP
EXISTING MANHOLES
GP-5 (SUMP)
15" PVC FL=910.72
MW-10
LEACHATE PUMP STATION
MW-2
CLEANOUT
LEACHATE HEAD MONITORING POINT
LEACHATE COLLECTION PIPE
NON PERF/PERF
2" CURBSTOP
PHASE 1
BRUSH PILE
PHASE 2 (2005)
PHASE 3 (2011)
CONNECTION TO EXISTING PERFORATED PIPE.
LEACHATE RECIRCULATION PIPING (11/10/22)
END RECIRCULATION PIPE
PHASE 4 (2017)
GWD PIPE
LEACHATE COLLECTION PIPE
PHASE 5 (2021)
OUTLET FL = 904.0
MW-19A
GP-1
INTAKE FL = 920.0
6" ADS PIPE
INTAKE FL = 918.6
INTAKE FL = 917.5
8" CPP
MW-18
8" CPP
INTAKE FL = 916.0
INTAKE FL = 916.8
MW-24
PROPERTY BOUNDARY
WASTE BOUNDARY
MW-9
SW AREA
LW-1
SCALE
OFFICE
EQUIPMENT MAINTENANCE
MW-15R
LEACHATE STORAGE TANK
MW-20R
CLEANOUT
LEACHATE PRETREATMENT BUILDING
LEACHATE PUMP CONTROL
LW-3
LPZ-6
LPZ-7
LW-4
LW-5
MW-12
GP-6
GP-6R
LW-2
AIR RELIEF AND CLEANOUT MANHOLE
ACCESS ROAD
NE AREA
LPZ-1
LW-6
FL AT PITLESS ADAPTER=952.4
VALVE
LPZ-5
LPZ-8
MW-21
GP-4
GP-4R
GAS COLLECTION TRENCH
GP-3
GP-3R
MW-22
MW-4
GP-7
MW-26
MW-5
MW-25
WASTE BOUNDARY
GV-1 EV
GV-2 EV
GV-4 EV
GV-5 EV
LPZ-2
LPZ-3
SCALE
0 100 200

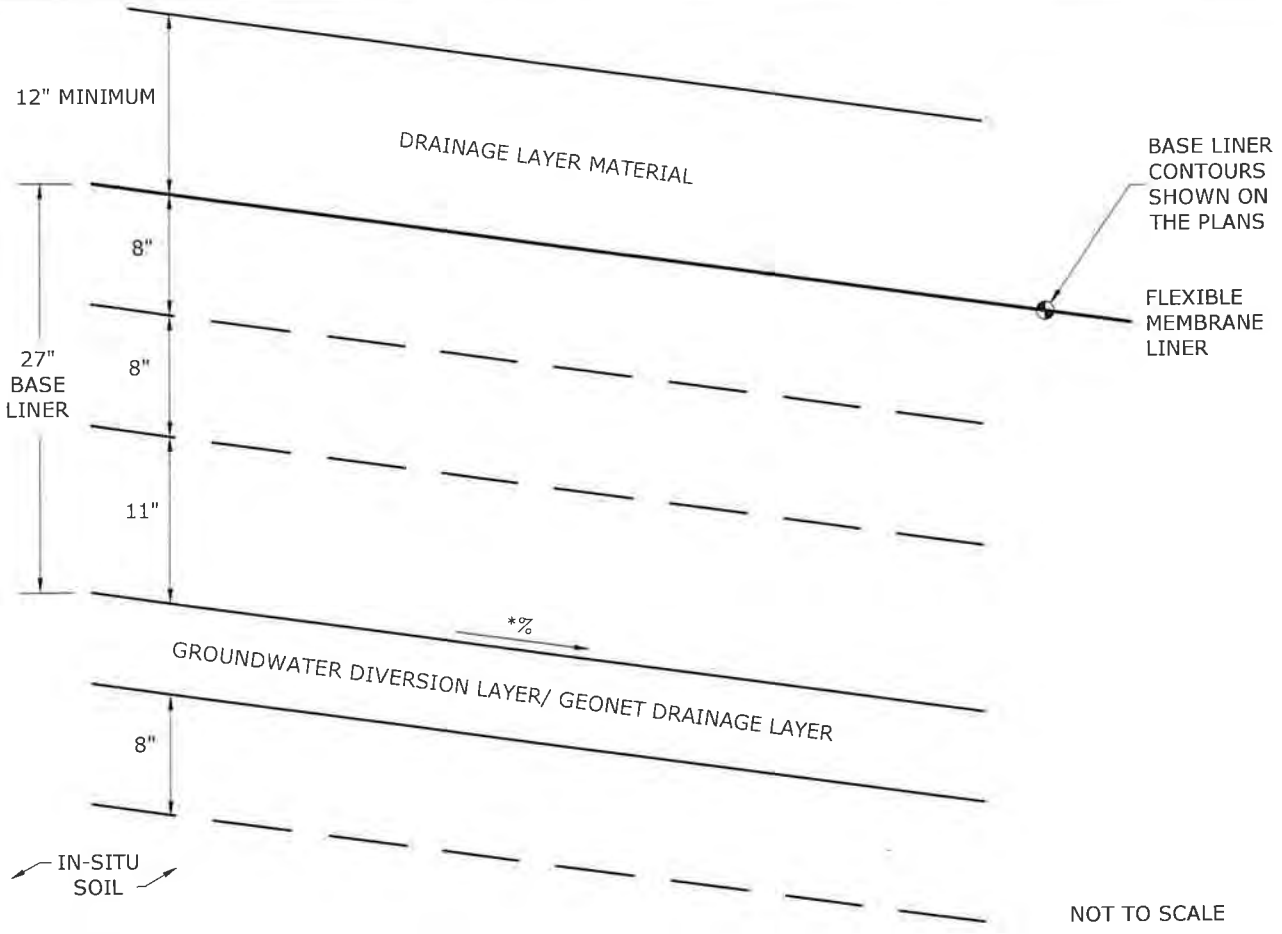
NOTES:
1. CONTOURS FROM DRONE SURVEY DATED SEPTEMBER 2, 2025.

FIGURE:	2
REVISION	NO. / DATE
DRAWN JGH	PROJECT NO. 6045-23A
	DATE 9/18/25

SITE PLAN – LANDFILL DEVELOPMENT
2025 PERMIT RENEWAL
SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA

HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

HLW
HLW Engineering Group



BASE LINER CONSTRUCTION AND MATERIAL NOTES:

- The top 8" of subgrade shall be scarified and recompacted to a minimum of 95% Standard Proctor (ASTM D698) or proof rolled.
- The base liner shall be constructed in accordance with Iowa Administrative Code 567, Subrule 113.7(5)"A"
- The base liner soil shall have a lab tested hydraulic conductivity ≤ 1 x 10E−7 cm/sec, the Engineer shall determine the suitability of the soil for use as the base liner material based on the results of lab hydraulic conductivity tests performed by the Engineer.
- The base liner shall be constructed in 2 – 8 inch compacted lifts and 1 – 11" compacted lift to a total depth of 2.25 feet (27 inches). The base liner material shall be placed with moisture and density control. Unless specified otherwise in the plans and specifications, the soil shall be compacted to a minimum of 95% standard proctor density (ASTM D698) with moisture 0−5% above optimum
- The bottom lift shall be placed in a single 11 inch (compacted depth) lift to meet designed base liner thickness. The entire lift shall meet the compaction and moisture requirements for base liner construction.
- The Engineer shall test for density and moisture (as per the specifications), certify and pass each 8 inch lift prior to placement of the next lift. Tests are required at the rate of five per lift per acre of base liner.
- A minimum of 5 Shelby Tube tests shall be taken from the base liner. Test results meeting or exceeding the IDNR minimum hydraulic conductivity requirement (≤ 1x10E−7 cm/sec) must be obtained before FML installation can begin.
- The flexible membrane liner shall be placed in direct and uniform contact with the base liner. For details of flexible membrane liner see specifications
- The drainage layer material shall be placed in a single lift after installation of the flexible membrane liner.
- The drainage layer material shall have a field and/or lab tested hydraulic conductivity ≥ 1 x 10E−2 cm/sec. The drainage layer material shall be inert, natural sands and gravels (ie. non−reactive when in contact with landfill leachate).
- Leachate collection pipes, groundwater diversion pipes, etc., shall be placed as shown on the details, plans, and specifications.

HLW Engineering Group

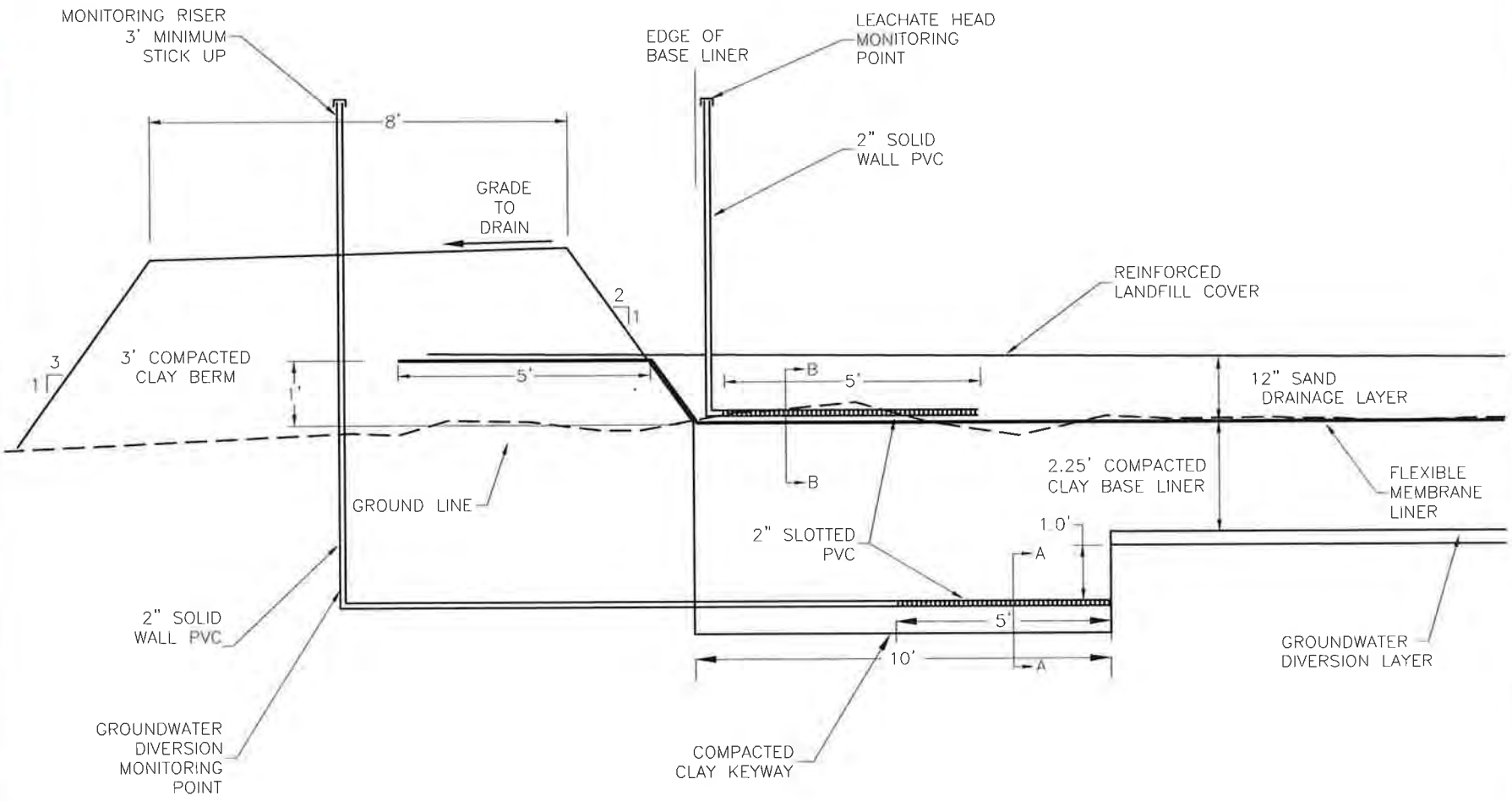
BASE LINER CONSTRUCTION
2025 PERMIT RENEWAL

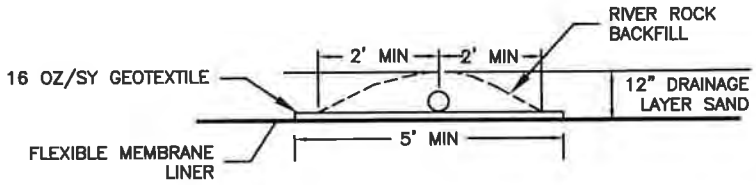
SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA

FIGURE: 3

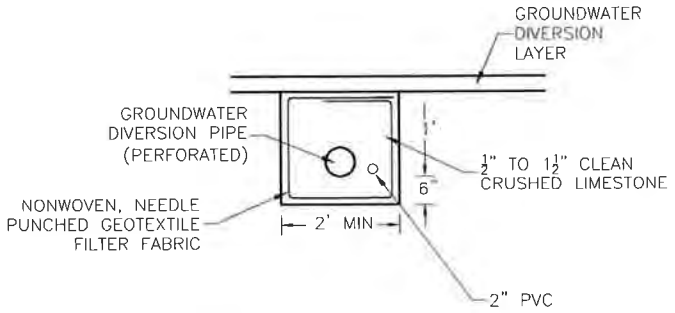
REVISION	NO.	DATE

DRAWN	PROJECT NO.	DATE
JGH	6045−23A	9/18/25





SECTION B–B



SECTION A–A

HLW Engineering Group

GROUNDWATER AND LEACHATE HEAD MONITORING POINTS
2025 PERMIT RENEWAL
SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA

FIGURE: 4

REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6045-23A	DATE 9/18/25

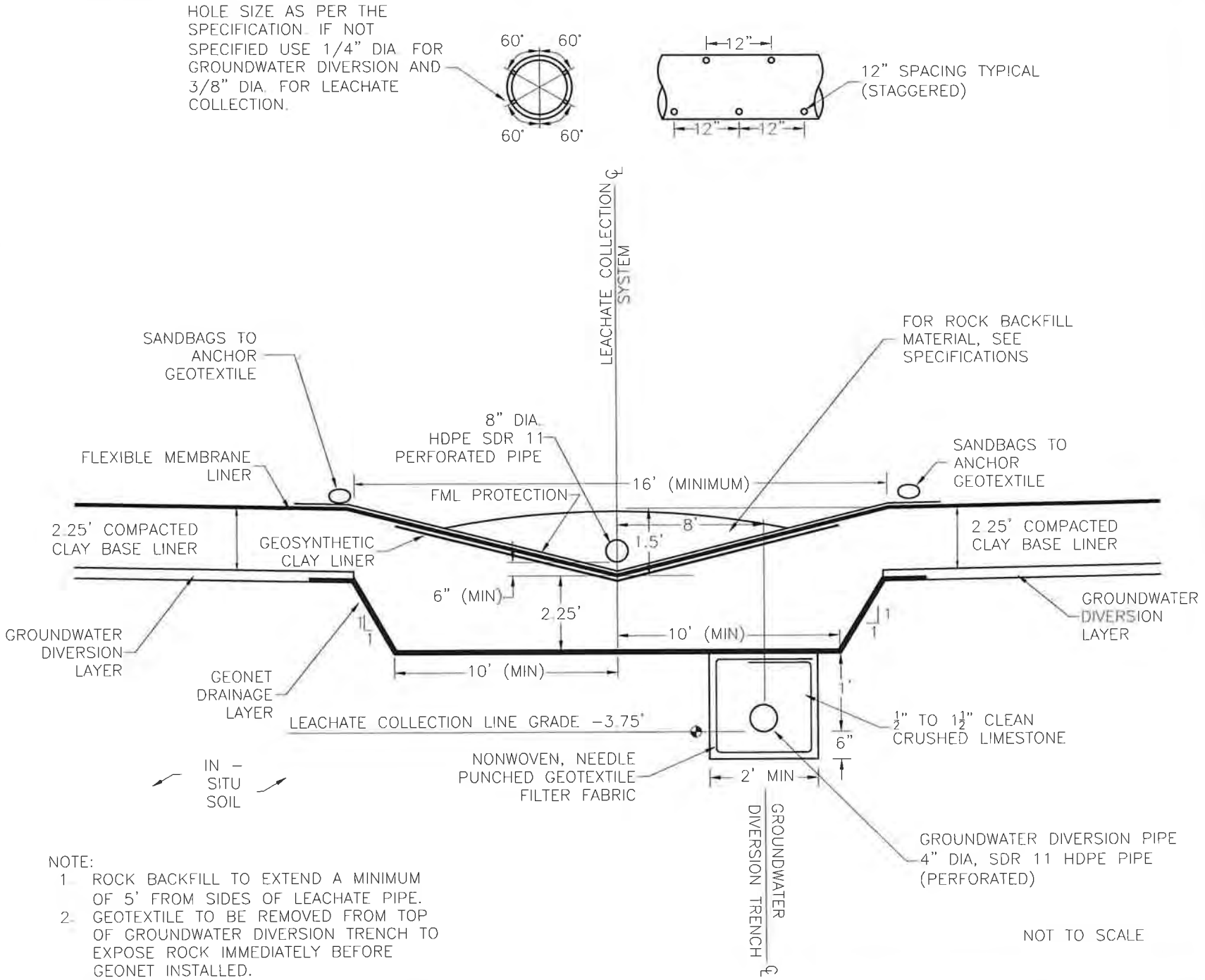
HLW Engineering Group

TYPICAL PIPE CROSS SECTION

LANDFILL BASE
2025 PERMIT RENEWAL
SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA

FIGURE: 5

REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6045-23A	DATE 9/18/25

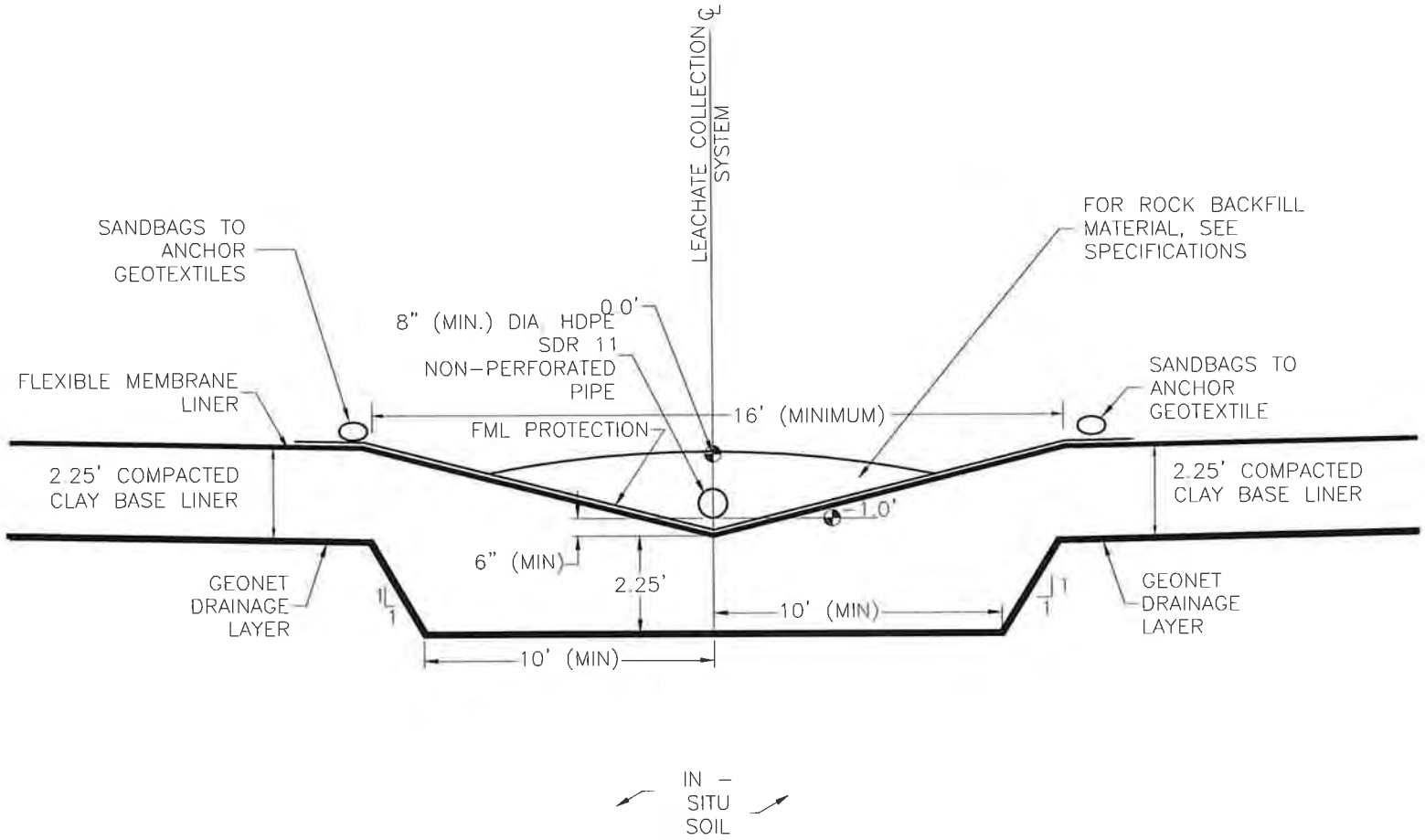


NOTE:
1. ROCK BACKFILL TO EXTEND A MINIMUM OF 5' FROM SIDES OF LEACHATE PIPE.
2. GEOTEXTILE TO BE REMOVED FROM TOP OF GROUNDWATER DIVERSION TRENCH TO EXPOSE ROCK IMMEDIATELY BEFORE GEONET INSTALLED.

HLW Engineering Group

TYPICAL PIPE CROSS SECTION
LANDFILL SIDESLOPE
2025 PERMIT RENEWAL

SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA



NOTE:
1. ROCK BACKFILL TO EXTEND A MINIMUM OF 5' FROM SIDES OF LEACHATE PIPE.

NOT TO SCALE

FIGURE: 6

REVISION	NO.	DATE

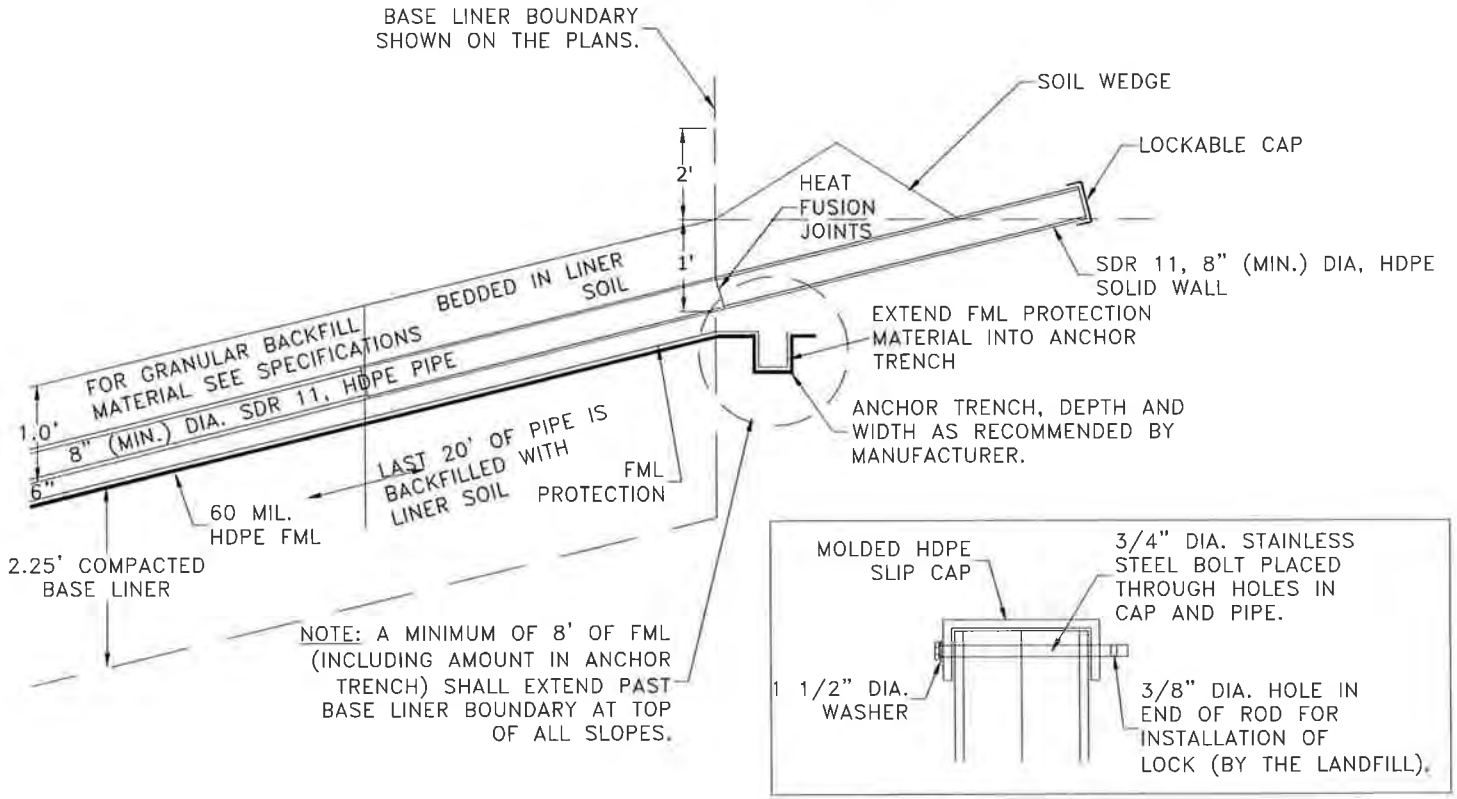
DRAWN	PROJECT NO.	DATE
JGH	6045-23A	9/18/25

HLW Engineering Group

SIDEWALL ACCESS POINT

2025 PERMIT RENEWAL

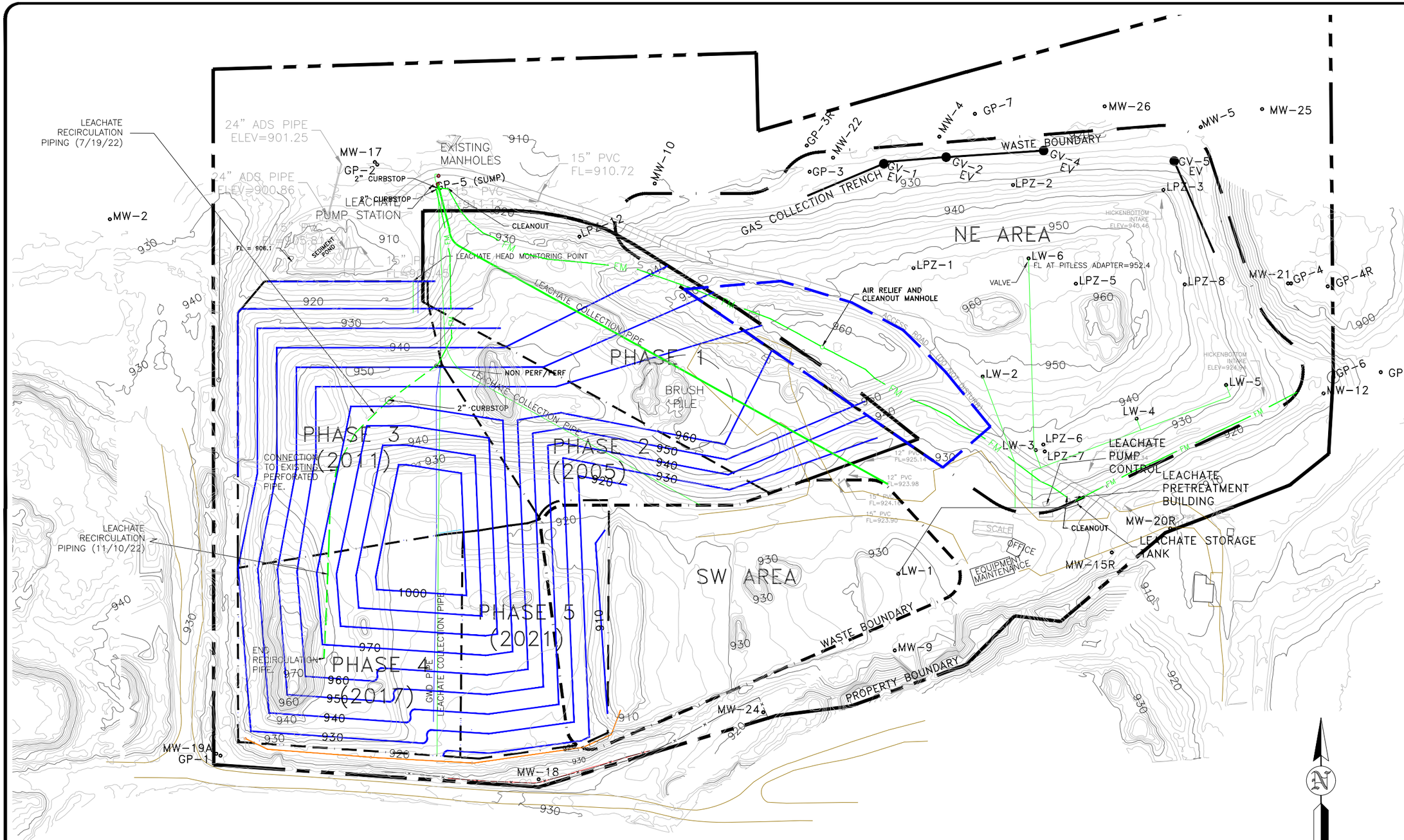
SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA



NOT TO SCALE

FIGURE: 7

REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6045-23A	DATE 9/18/25



NOTES:
1. CONTOURS FROM DRONE SURVEY DATED SEPTEMBER 2, 2025.
2. CLOSURE CONTOURS WILL BE DEVELOPED AFTER STAFF COMPLETES EXCAVATION OF "SW AREA" SO EXTENT OF FUTURE DEVELOPMENT CAN BE DETERMINED.

FIGURE: 8

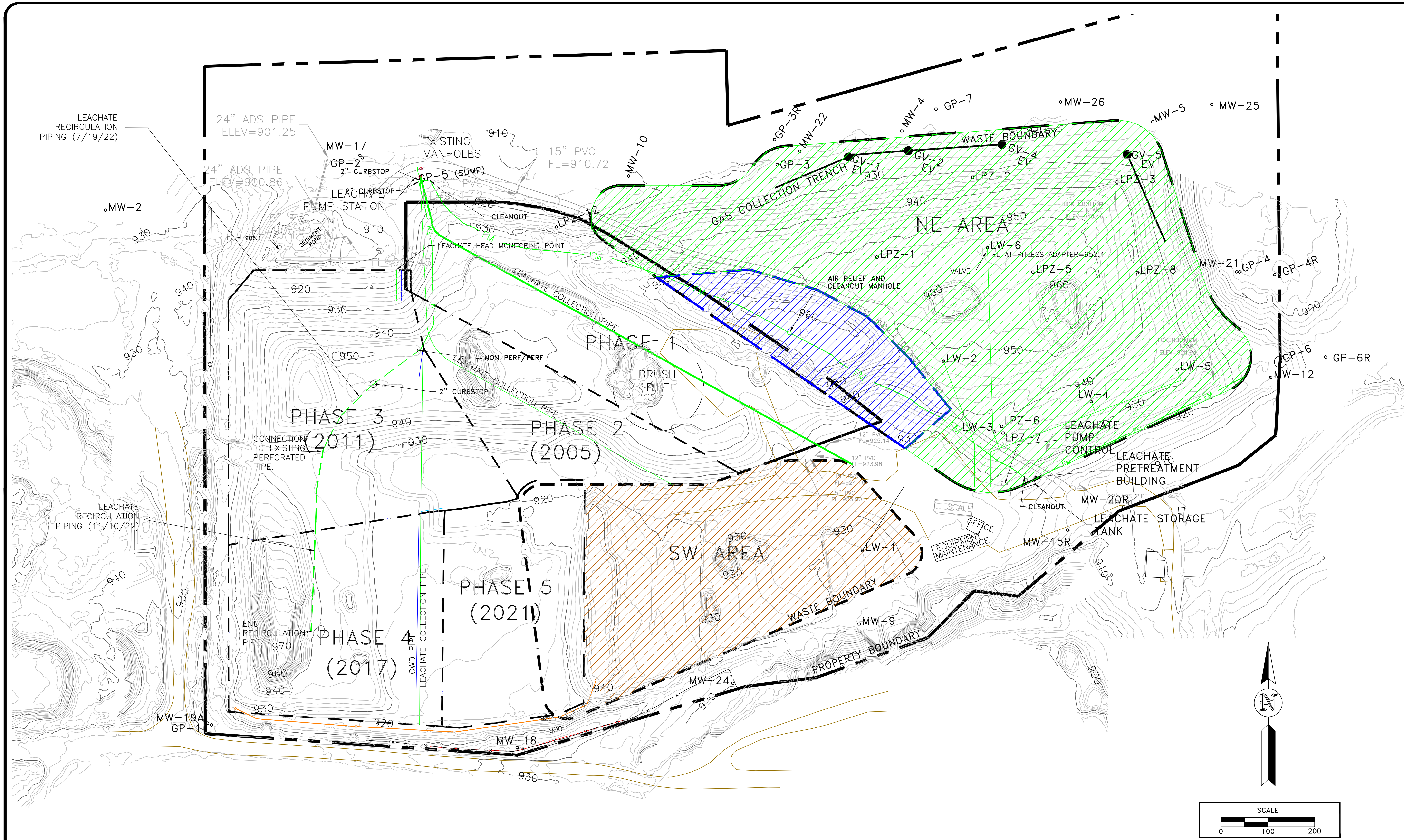
REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6045-23A	DATE 9/18/25

INTERMEDIATE CONTOURS PHASES 1-5 2025 PERMIT RENEWAL

SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA

HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

HLW Engineering Group



LEACHATE RECIRCULATION PIPING (7/19/22)
24" ADS PIPE ELEV=901.25
24" ADS PIPE ELEV=900.86
MW-17
GP-2
2" CURBSTOP
EXISTING MANHOLES
15" PVC FL=910.72
GP-5 (SUMP)
LEACHATE PUMP STATION
MW-2
CLEANOUT
LEACHATE HEAD MONITORING POINT
LEACHATE COLLECTION PIPE
NON PERF/PERF
PHASE 1
BRUSH PILE
PHASE 3 (2011)
PHASE 2 (2005)
CONNECTION TO EXISTING PERFORATED PIPE.
LEACHATE RECIRCULATION PIPING (11/10/22)
END RECIRCULATION PIPE
PHASE 4 (2017)
PHASE 5 (2021)
GWD PIPE
LEACHATE COLLECTION PIPE
MW-19A
GP-1
MW-18
MW-24
PROPERTY BOUNDARY
WASTE BOUNDARY
MW-9
SW AREA
LW-1
NE AREA
GAS COLLECTION TRENCH
MW-10
GP-3R
MW-22
GP-3
MW-4
GP-7
MW-26
MW-5
MW-25
GV-1
GV-2
GV-4
GV-5
LPZ-2
LPZ-3
LPZ-1
LW-6
LPZ-5
LPZ-8
AIR RELIEF AND CLEANOUT MANHOLE
VALVE
LW-2
LW-5
LW-4
LW-3
LPZ-6
LPZ-7
LEACHATE PUMP CONTROL
LEACHATE PRETREATMENT BUILDING
MW-20R
CLEANOUT
LEACHATE STORAGE TANK
MW-15R
SCALE
OFFICE
EQUIPMENT MAINTENANCE
MW-21
GP-4
GP-4R
GP-6
GP-6R
MW-12
SCALE
0
100
200

NOTES:
1. CONTOURS FROM DRONE SURVEY DATED SEPTEMBER 2, 2025.

(orange hatch)	CLOSED IN 1993 (DOC # 57396)
(green hatch)	CLOSED IN 1998/1999 (DOC # 23584 and DOC #23643)
(blue hatch)	CLOSED IN 2011 (DOC # 66636)

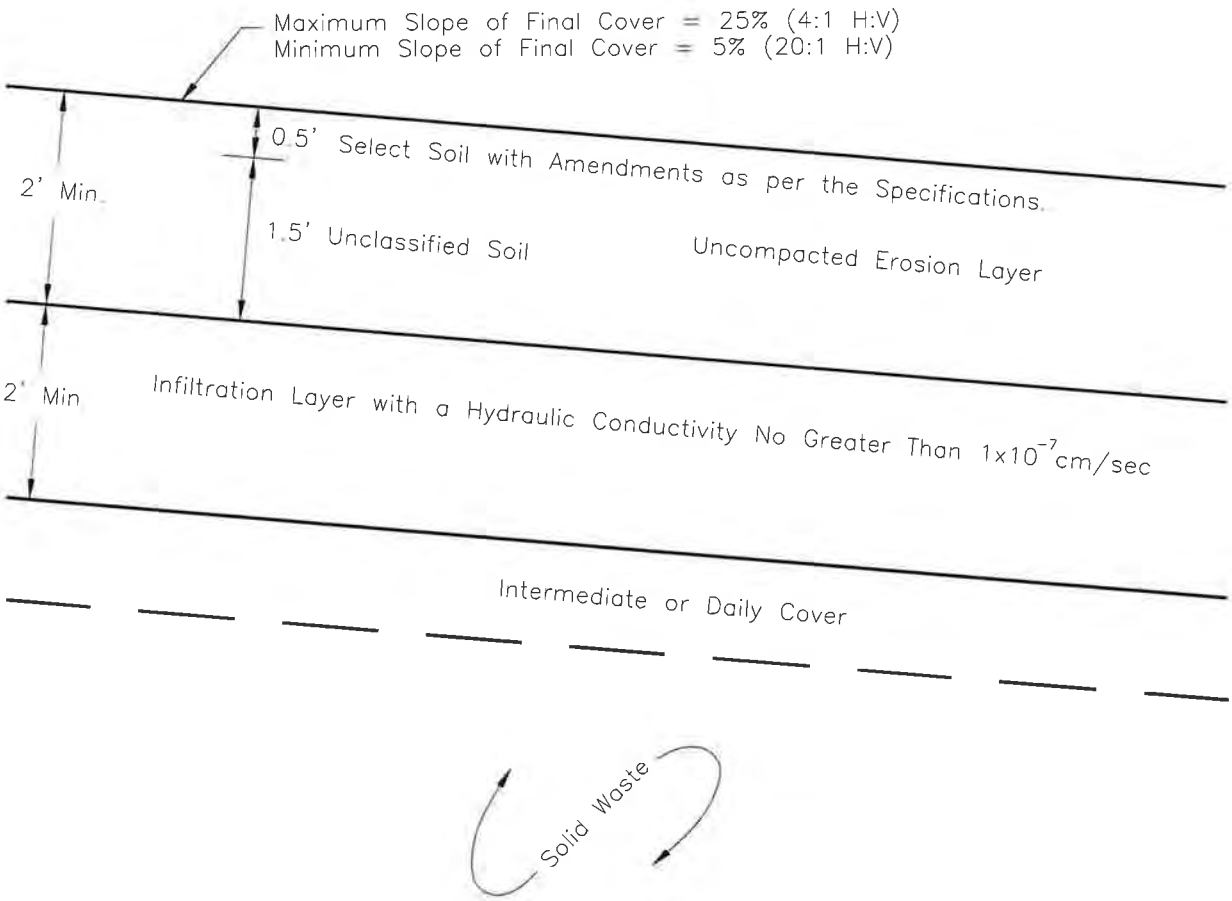
FIGURE: 9

NO.	DATE
REVISION	

DRAWN JGH
PROJECT NO. 6045-23A
DATE 9/18/25

CLOSED AREAS
2025 PERMIT RENEWAL
SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA

HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146



CONSTRUCTION AND MATERIAL NOTES

- The Engineer shall determine the suitability of soil for use in the infiltration layer based on the results of laboratory hydraulic conductivity tests.
- The select soil shall be from the best available soil for vegetative growth from borrow areas or stockpiles. Soil Amendments shall be applied as per the specifications. The layer should be disked and prepared for seeding and mulching as required in the specifications.

NOT TO SCALE

HLW Engineering Group

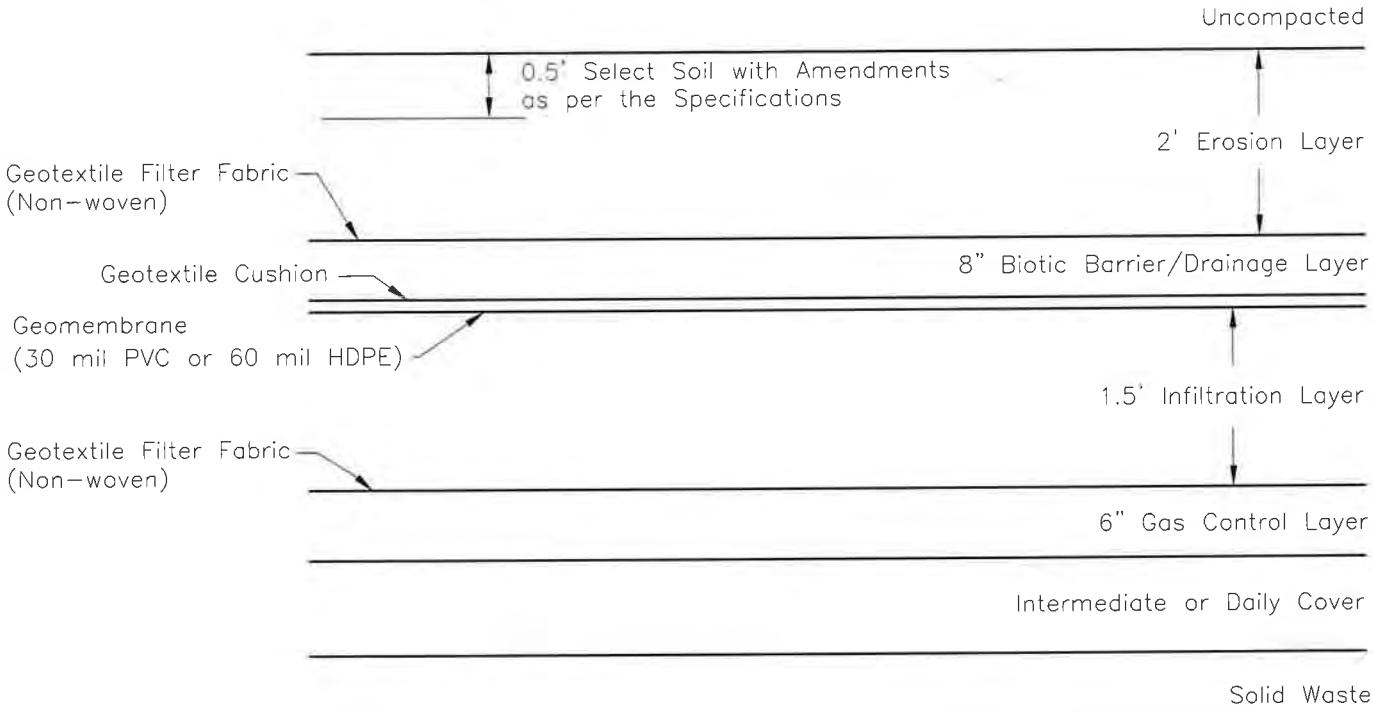
FINAL COVER DETAIL ALTERNATIVE CAP 2025 PERMIT RENEWAL

SOUTH DALLAS COUNTY SLF, ADEL, IOWA

FIGURE: 10

REVISION	NO.	DATE

DRAWN	PROJECT NO.	DATE
JGH	6045-23A	9/18/25



CONSTRUCTION AND MATERIAL NOTES:

- The Engineer shall determine the suitability of soil for use in the infiltration layer based on the results of lab hydraulic conductivity tests.
- Biotic barrier shall consist of clean rock with a nominal diameter of 3".
- Gas control layer shall consist of clean rock or sand. Gas control layer shall be vented as shown in Figure 16
- The select soil shall be from the best available soil for vegetative growth from borrow areas or stockpiles. Soil amendments shall be applied as per the specifications. The layer should be disked and prepared for seeding and mulching as required in the specifications.
- Biotic barrier/drainage layer will outlet into a perimeter drainage tile at the toe of the slope.

NOT TO SCALE

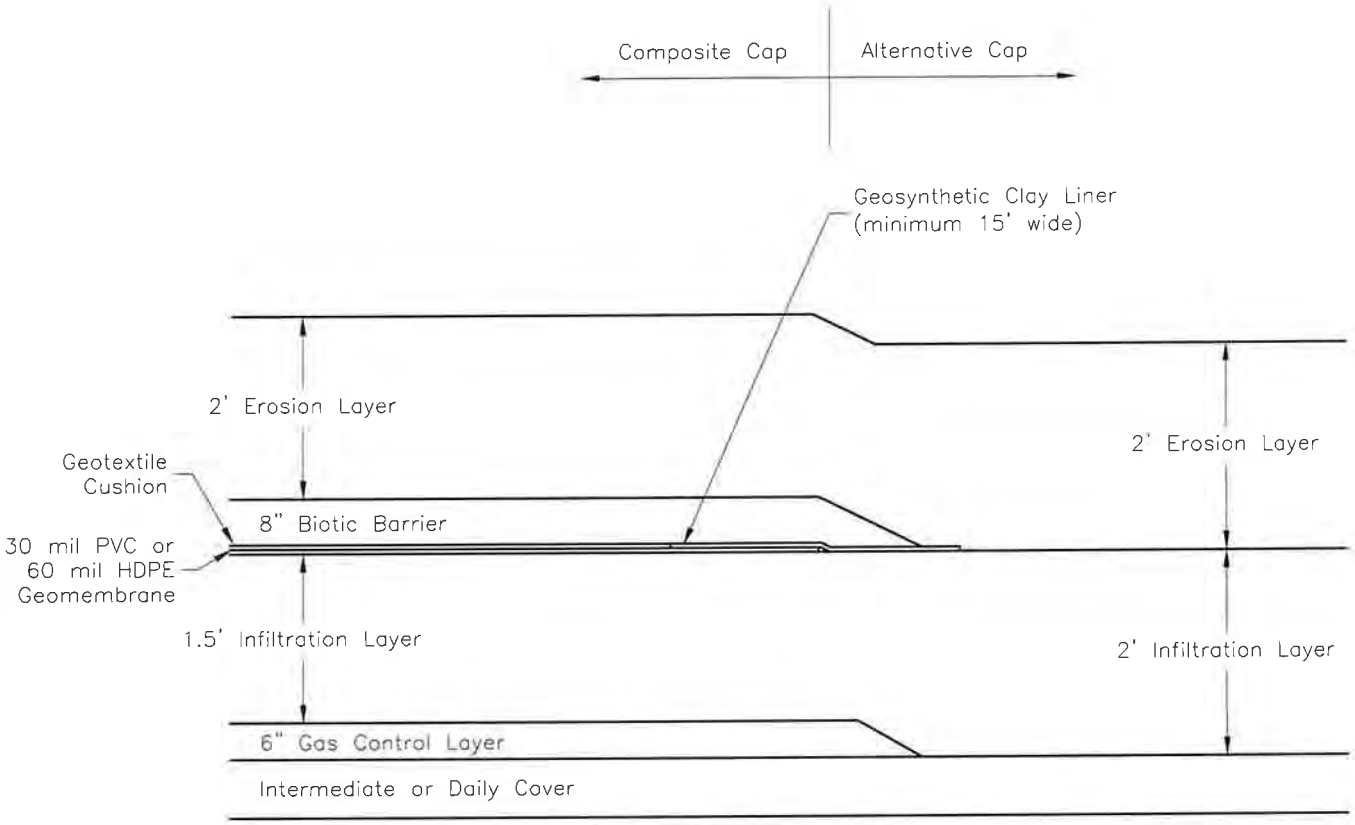
HLW Engineering Group

FINAL COVER DETAIL
COMPOSITE CAP
2025 PERMIT RENEWAL

SOUTH DALLAS COUNTY SLF, ADEL, IOWA

FIGURE: 11

REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6045-23A	DATE 9/18/25



Notes:

1) Composite cap/soil cap joints will be located to maintain drainage in biotic layer.

2) Protect edge of geomembrane with GCL as shown above. Purpose of GCL is to eliminate possibility of water migrating under geomembrane GCL will also protect composite cap/soil cap joint GCL to be installed directly on top of geomembrane.

NOT TO SCALE

HLW Engineering Group

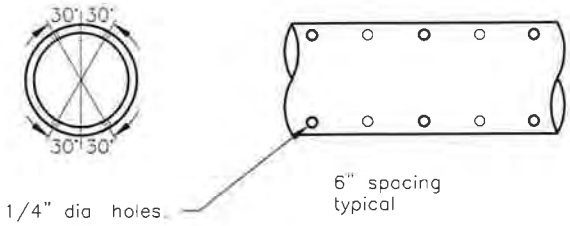
COMPOSITE TO ALTERNATIVE CAP CONSTRUCTION JOINT DETAIL 2025 PERMIT RENEWAL

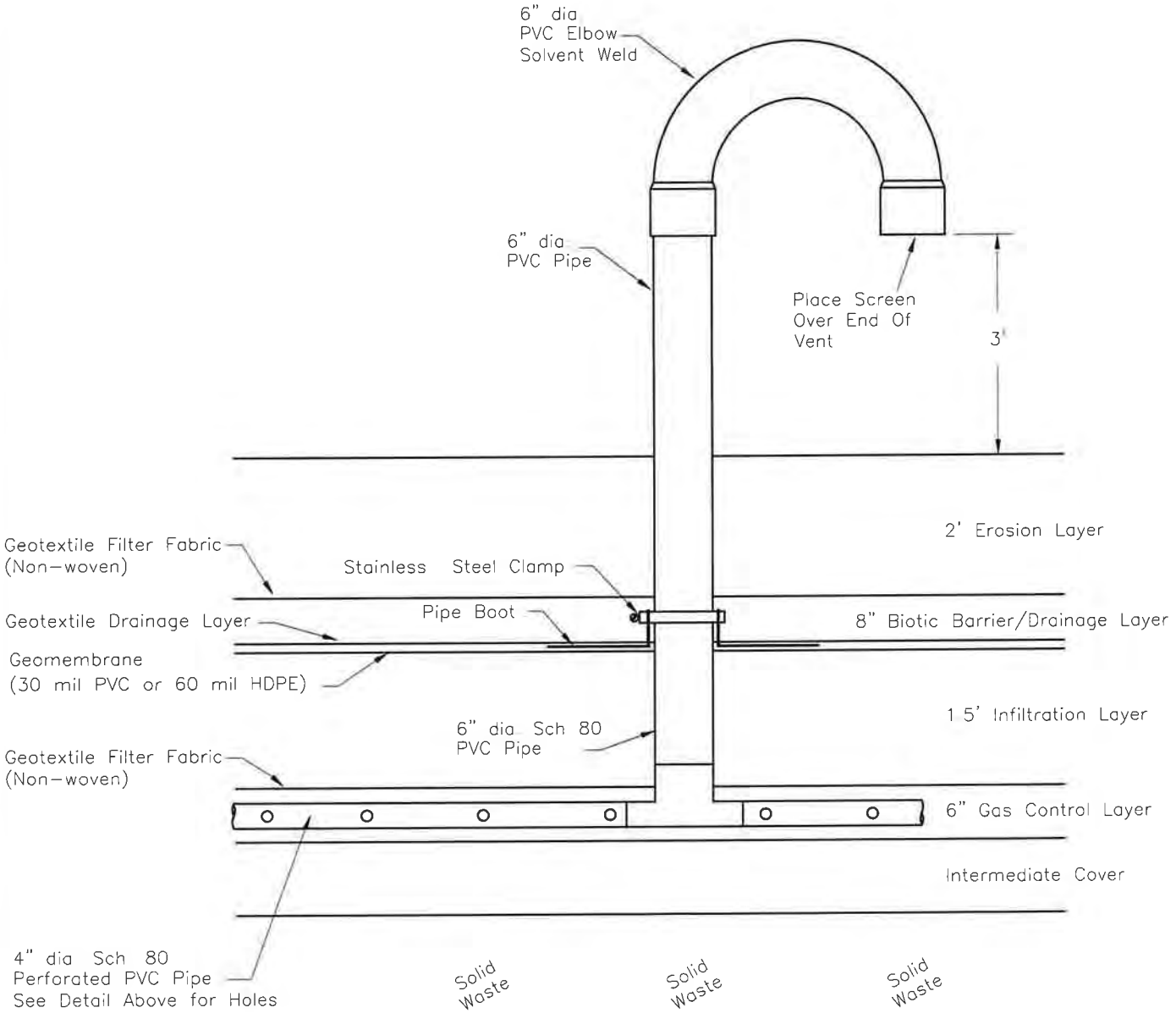
SOUTH DALLAS COUNTY SLF, ADEL, IOWA

FIGURE: 12

REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6045-23A	DATE 9/18/25

NOTE: GAS VENTS ONLY REQUIRED IN AREAS WITH A COMPOSITE CAP.





NOT TO SCALE

HLW Engineering Group

GAS VENT DETAIL

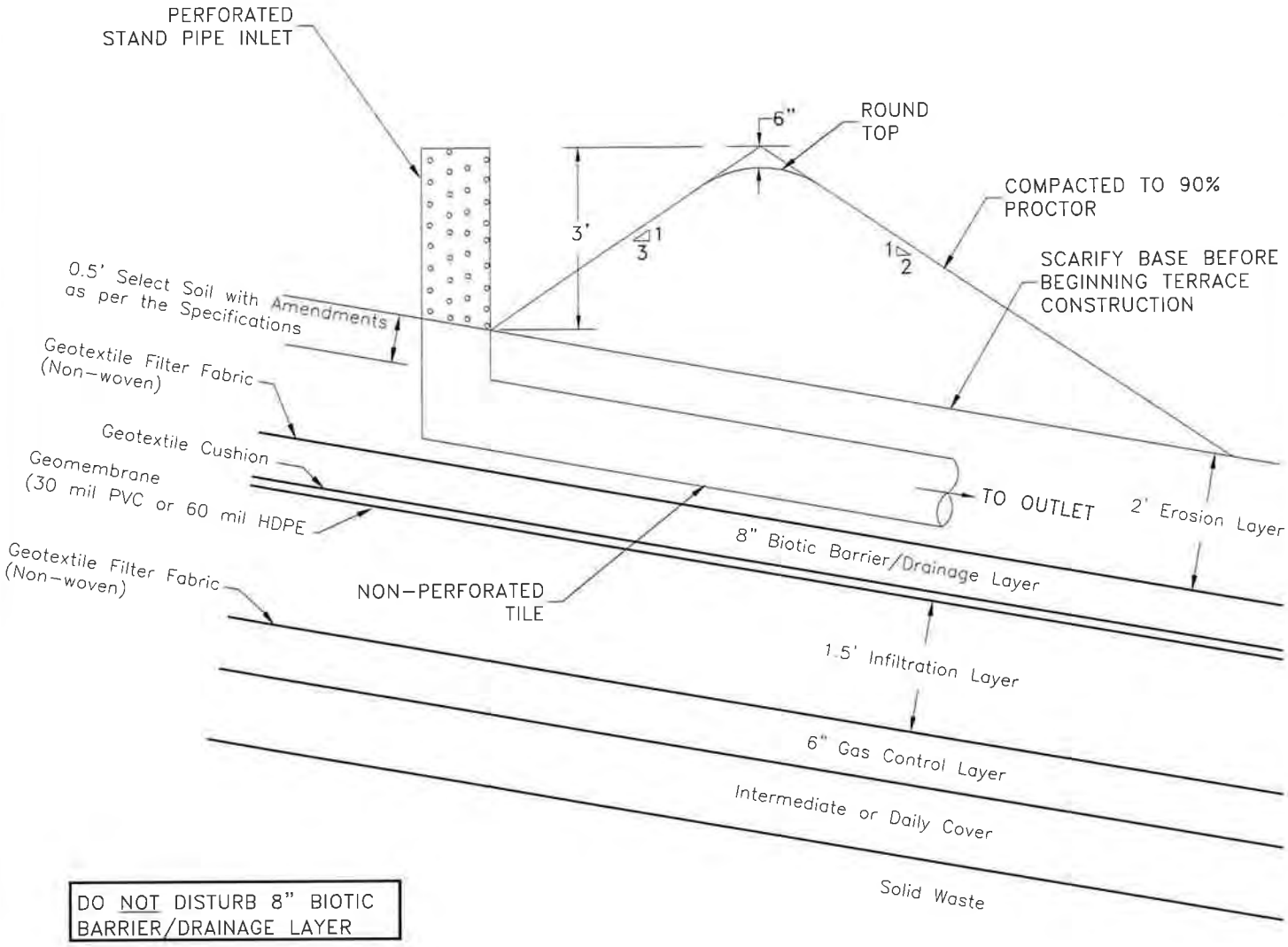
2025 PERMIT RENEWAL

SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA

FIGURE: 13

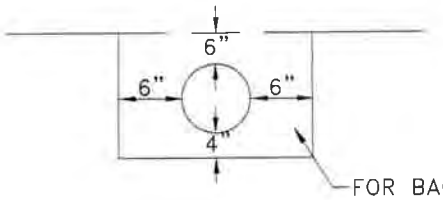
REVISION	NO.	DATE

DRAWN	PROJECT NO.	DATE
JGH	6045-23A	9/18/25



DO NOT DISTURB 8" BIOTIC BARRIER/DRAINAGE LAYER

NOTE: TERRACES WILL BE CONSTRUCTED ON THE CAP AS NEEDED TO LIMIT EROSION AND PROMOTE THE ESTABLISHMENT OF VEGETATION THE TERRACES WILL BE FIELD FIT AS THE CAP IS CONSTRUCTED



PIPE BEDDING DETAIL
NO SCALE

HLW Engineering Group

TYPICAL TERRACE CROSS SECTION
2025 PERMIT RENEWAL

SOUTH DALLAS COUNTY SANITARY LANDFILL
ADEL, IOWA

FIGURE: 14

REVISION	NO.	DATE

DRAWN	PROJECT NO.	DATE
JGH	6045-23A	9/18/25

APPENDIX 2

POST IN CONSPICUOUS PLACE

NONTRANSFERABLE

STATE OF IOWA

DEPARTMENT OF AGRICULTURE & LAND STEWARDSHIP

DES MOINES

SCALE LICENSE

License No. 4349
SOUTH DALLAS COUNTY LANDFILL
PO BOX 263
ADEL IA 50003

SCALE LOCATION
S DALLAS COUNTY LANDFILL
2000 MAIN
ADEL IA 50003

IS GRANTED THE ABOVE LICENSE PURSUANT TO SECTIONS 214, CODE OF IOWA. THIS LICENSE SHALL REMAIN IN FULL FORCE FROM THE DATE OF ISSUE UNTIL ITS EXPIRATION DATE, UNLESS REVOKED OR SUSPENDED FOR CAUSE BY THE SECRETARY OF AGRICULTURE FOR NONCOMPLIANCE WITH CHAPTER 214, CODE OF IOWA OR RULES ADOPTED PURSUANT THERETO.

DATE OF ISSUE 10/30/2024

EXPIRATION DATE
12/31/2025

This license is non-transferable and non-refundable

Mike Naig

SECRETARY OF AGRICULTURE

TYPE OF DEVICE	--- NUMBER
0 THRU 500 LBS	0
501 THRU 5000 LBS	0
5001 THRU 50000 LBS	0
50001 THRU 120000 LBS	1
OVER 120000 LBS	0
MOISTURE METERS	0
COUNTY	25

APPENDIX 3

Quality Control and Assurance Plan

QC&A Officer: Douglas J. Luzbetak, P.E.
HLW Engineering Group, LLC
204 West Broad Street
PO Box 314
Story City, Iowa 50248
(515)733-4144
FAX: (515)733-4146
Cell: (515)290-0247
dluzbetak@hlwengineering.com

Resident Project Representative (RPR):
To be determined at the time of construction

The quality control and assurance requirements will be as specified below. Specific details for the construction of individual disposal or closure areas will be submitted to IDNR along with the plans and specifications for each project prior to construction. Listed below are general requirements for the Quality Control and Assurance (QC&A) Plan.

Subgrade: The RPR will observe subgrade preparation and look for the presence of trees, stumps, roots, boulders, debris, frozen soil, litter, and other unsuitable materials. Unsuitable materials are as listed above or are defined as any material not having adequate stability to act as a proper foundation for the liner or cap system. Suitability of materials shall be determined by the QC&A Officer. Unsuitable materials on the subgrade will be removed and replaced with suitable material as necessary. If core outs are required, the unsuitable foundation materials shall be cored out to a minimum depth of 2' below surface elevation and be replaced with material capable of providing a suitable foundation.

The subgrade will be proof rolled or scarified to a minimum depth of 8" (liner subgrade) or 6" (cap subgrade) and recompacted prior to installation of the base liner or infiltration layer. The minimum allowable density after recompaction is 95% (liner subgrade) or 90% (cap subgrade) of the determined Standard Proctor Density. If the subgrade is scarified and recompacted, the subgrade will be tested for density control with a nuclear density meter at a *minimum* interval of one test per acre of prepared subgrade. Areas where the tests fail will be recompacted and retested until passing tests are achieved.

Geonet Drainage Composite (Groundwater Diversion layer): The geonet drainage composite shall be a minimum of a 200 mil HDPE geonet with 8 ounces per square yard nonwoven, needle punched geotextile fabric bonded to each side of the geonet. Geonet cores will be connected to adjacent geonet cores using plastic zip ties or other methods recommended by the Manufacturer.

Top layer geotextile seams shall be heat tacked or sewn to limit fabric movement during soil placement.

Prior to geonet installation the Contractor shall provide the manufacturer's raw materials and roll certifications to the Owner. The materials delivered to the project shall be checked against the roll certifications to insure that the proper material was delivered to the site. Geonet rolls that do not have proper certifications will not be allowed to be used on the project. Roll certifications will be submitted to IDNR in the final QC&A Report.

Compacted Clay Component of the Base Liner: The compacted clay component of the base liner will be constructed from glacial till materials approved by the QC&A Officer. The hydraulic conductivity of potential base liner soils will be evaluated in the laboratory by determining the hydraulic conductivity of sample soils in relation to the Standard Proctor Density and Standard Proctor moisture content. The maximum allowable hydraulic conductivity of a base liner soil is 1×10^{-7} cm/sec.

The material will be placed in lifts no thicker than 8 inches after compaction. The base liner will be tested for moisture and density control with a nuclear density meter at a minimum interval of five tests per 8 inch lift per acre of base liner constructed. The minimum allowable density is 95% of the determined Standard Proctor Density or the minimum allowable density as determined by an acceptable zone determination. Minimum moisture content is the optimum moisture content as determined by the Standard Proctor Method or the minimum allowable moisture content as determined by an acceptable zone determination. The maximum moisture content is 5% above the optimum moisture content as determined by the Standard Proctor Method. Note that reference to the acceptable zone determination above does not establish that this method will be utilized. Areas where the moisture/density tests fail will have moisture adjusted (if necessary), be recompacted, and be retested until passing tests are achieved. The soil may have to be removed and replaced to obtain passing tests.

Laboratory hydraulic conductivity tests using shelby tubes will also be performed. A minimum of five (5) shelby tube samples will be collected from the compacted clay component of the base liner. The minimum of five shelby tube samples was chosen to represent the potential variation of conditions during sampling as well as to allow a statistical analysis to be performed on the shelby tube test results. The shelby tube sample results will be analyzed at mean plus two standard deviations to document hydraulic conductivities of no more than $1x10^{-7}$ cm/sec. The laboratory and statistical results will be included in the QC&A Report submitted at the conclusion of each liner construction project. Additional shelby tube samples may be taken at the discretion of the QC&A Officer if the statistical analysis does not result in a mean plus two standard deviation value of hydraulic conductivity of less than $1x10^{-7}$ cm/sec or if inconsistencies in the sampling results are noted by the QC&A Officer. The voids created by the shelby tubes in the compacted clay component of the base liner will be backfilled with bentonite material.

The subgrade will be surveyed prior to the start of clay liner installation to establish starting grades for the liner. Progress stakes will be provided for the clay liner as necessary, and the surface of the compacted clay liner will be surveyed prior to the installation of the FML to document liner thickness of a minimum of 2.25'. The grade will be spot checked as needed to determine elevation compliance of the Contractor's GPS equipment. The surface of the clay liner shall be graded to a tolerance of 0 to 0.1'.

All laboratory test results, hydraulic conductivity/compaction/moisture content curves and plots, and field density reports will be submitted to the IDNR in the QC&A Report prior to certification of the area for solid waste deposition.

Note that the testing regimen detailed above will also apply to the infiltration layer in a closure cap.

Flexible Membrane Liner: The flexible membrane liner (FML) will be 60 mil HDPE. Both sides of the FML will be textured on the sideslopes of landfill cells that are steeper than 5%. Smooth FML is allowed on slopes flatter than 5%. The FML shall meet the requirements of Geosynthetic Research Institute (GRI) GM-13 "Test Methods, Test Properties and Testing Frequency for High Density Polyethylene (HDPE) Smooth and Textured Geomembranes" and applicable sections of the construction specifications.

Prior to FML installation the Contractor shall provide the manufacturer's raw materials and roll certifications to the Owner. The materials delivered to the project shall be checked against the roll certifications to insure that the proper material was delivered to the site. Geomembrane rolls that do not have proper certifications will not be allowed to be used on the project.

The FML installer shall provide written acceptance of the subgrade surface prior to the commencement of FML installation.

All field seams shall be made by either double fusion (hot wedge) or extrusion welding. The RPR will be on site during welding of the FML. All seams shall be non destructively tested by the FML installer using air pressure testing for double fusion seams and vacuum box testing for extrusion welded seams.

A minimum of one destructive test will be performed by the FML installer per 500 linear feet of seam. This distance may be decreased during construction at the discretion of the QC&A Officer. The location of destructive tests will be determined by the RPR. Destructive tests will be done on the side slope as much as practical, tests on the base will be conducted as far from leachate collection infrastructure as possible. The destructive tests must meet the requirements listed in GRI GM-19a "Seam Strength and Related Properties of Thermally Bonded Polyolefin

Geomembranes/Barriers". A minimum of two (2) destructive test samples will be sent to an Independent Laboratory for testing.

Seams that fail the non-destructive or destructive testing shall be repaired and retested until passing tests are obtained.

Panel information, roll certifications, and test results on the FML will be submitted to IDNR in the final QC&A Report.

Note that the testing regimen detailed above will also apply to the flexible membrane liner in the composite closure cap unless a LLDPE or PVC geomembrane is utilized in the closure cap. If a LLDPE or PVC geomembrane is utilized QC&A requirements for the geomembrane will be submitted in the QC&A Plan for the specific project.

Leachate Piping: The HDPE piping used for the leachate piping will be fusion welded in accordance with manufacturers recommendations. Connections between new and existing piping will be made in the presence of the RPR. Rock backfilling of the pipes will also be done in the presence of the RPR. Note that limestone is not allowed for bedding of the leachate piping within the solid waste boundary. Leachate conveyance piping outside of the solid waste boundary must have containment measures as per IAC 567-113.7(5)b(10). Dual wall pipe, backfill consisting of a 50:50 mixture of bentonite and sand, AquaBlok as manufactured by AquaBlok, Ltd., or an equivalent material will be used to satisfy containment requirements. Tees, fittings, and other appurtenances shall conform to the manufacturers recommendations.

Manholes: Leachate manholes will be backfilled with either a 50:50 mixture of bentonite and sand, AquaBlok, or an equivalent material to provide secondary containment around the structures as per IAC 567-113.7(5)b(10).

The manholes will be installed and backfilled in the presence of the RPR.

Drainage Layer: The drainage layer will be composed of a minimum of 12 inches of a high hydraulic conductivity material with a hydraulic conductivity of at least 1×10^{-2} cm/sec. If sand is used as the primary drainage layer, it will meet the hydraulic conductivity requirement above and have no more than 5% of the material (by weight) passing a #200 sieve. Drainage layer material will have hydraulic conductivity verified in the laboratory before use is allowed. A copy of the laboratory hydraulic conductivity tests will be submitted to IDNR in the final QC&A Report.

Drainage layer material will be installed in the presence of the RPR. Drainage layer thickness will be physically measured by the RPR with a shovel and tape (or another acceptable method) incrementally as the sand is installed to document drainage layer material thickness.

Measurement shall be at least once for every 100 foot by 100 foot area of drainage layer installed. Drainage layer depth will also be checked at the toe of slopes and other significant grade changes. The surface of the drainage layer shall be graded to a tolerance of 0 to +0.1'.

Geosynthetic cover will be installed over the drainage layer to protect the drainage layer from erosion and to reduce leachate generation from the exposed drainage layer.

Reinforced Landfill Cover over Drainage Layer: A reinforced landfill cover (RLC) will be placed on the 12" (minimum) thickness of drainage layer sand upon completion. The RLC will be scrim reinforced polyethylene and will be ballasted, anchored, and seamed in accordance with Manufacturer's recommendations.

The RLC will be installed in the presence of the RPR.

As operations require, landfill staff will remove portions of the RLC from the drainage layer sand prior to placing choice MSW waste. Typically, the RLC will be removed on an as needed basis from an area approximately equal to the typical daily waste cell size. When the RLC is removed, landfill staff will visually review the sand surface to look for the presence of soil or other debris on the sand prior to waste deposition. Photos will be used for documentation purposes as necessary. If there is visible debris on the drainage layer sand surface, the debris will be removed and the depth of sand reconfirmed. Waste will not be placed on the drainage layer until the surface of the sand is visually reviewed by staff.

Quality Control and Assurance Report: A final QC&A Report will be submitted to IDNR upon the completion of construction. A copy of the final report will also be maintained at the landfill. At a minimum, the final report shall include the following:

- Title page and index
- Name and permit number of the South Dallas County SLF
- Contact information for the QC&A Officer
- Contact information for all contractors associated with the construction of the project
- Applicable soil, FML, and drainage layer test results
- Copies of the Resident Project Representative's reports
- Representative photos from various stages of the construction process
- A signed/sealed statement by the QC&A Officer that the unit was constructed in general accordance with rule 113.7 (455B) and the approved plans and specifications

Record Drawings showing variations from the plans will also be submitted to the IDNR. Note that the Record Drawings may be submitted separately from the QC&A report to expedite the submission of the QC&A report.

APPENDIX 4

IOWA DEPARTMENT OF NATURAL RESOURCES

National Pollutant Discharge Elimination System (NPDES) Permit

OWNER NAME & ADDRESS

CITY OF ADEL
PO BOX 248
ADEL, IA 50003-0248

FACILITY NAME & ADDRESS

ADEL CITY OF STP
600 SOUTH 4TH STREET
ADEL, IA 50003

Section 33, T79N, R27W
Dallas County

IOWA NPDES PERMIT NUMBER: 2503001
DATE OF ISSUANCE: 12/01/2022
DATE OF EXPIRATION: 11/30/2027

YOU ARE REQUIRED TO FILE FOR RENEWAL OF THIS PERMIT BY: 06/03/2027
EPA NUMBER: IA0041921

This permit is issued pursuant to the authority of section 402(b) of the Clean Water Act (33 U.S.C. 1342(b)), Iowa Code section 455B.174, and rule 567-64.3, Iowa Administrative Code. You are authorized to operate the disposal system and to discharge the pollutants specified in this permit in accordance with the effluent limitations, monitoring requirements and other terms set forth in this permit.

Pursuant to rule 561-7.4, Iowa Administrative Code, you may appeal any condition of this permit by filing a written notice of appeal and request for administrative hearing with the director of the department within 60 days of permit issuance.

Any existing, unexpired Iowa operation permit or Iowa NPDES permit previously issued by the department for the facility identified above is revoked by the issuance of this permit. This provision does not apply to any authorization to discharge under the terms and conditions of a general permit issued by the department or to any permit issued exclusively for the discharge of stormwater.

FOR THE DEPARTMENT OF NATURAL RESOURCES

By _____

Ryan Olive
NPDES Section, Environmental Services Division

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

Outfall No.: 001 DISCHARGE FROM A SEQUENCING BATCH REACTOR WASTEWATER TREATMENT FACILITY.

Receiving Stream: NORTH RACCOON RIVER

Route of Flow: NORTH RACCOON RIVER

Class A1 waters are primary contact recreational use waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risks of ingesting water in quantities sufficient to pose a health hazard. Such activities would include, but not be limited to, swimming, diving, water skiing, and water contact recreational canoeing.

Waters designated Class B(WW1) are those in which temperature, flow and other habitat characteristics are suitable to maintain warm water game fish populations along with a resident aquatic community that includes a variety of native nongame fish and invertebrates species. These waters generally include border rivers, large interior rivers, and the lower segments of medium-size tributary streams.

Waters designated Class HH are those in which fish are routinely harvested for human consumption or waters both designated as a drinking water supply and in which fish are routinely harvested for human consumption.

Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

Effluent Limitations:

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

001 DISCHARGE FROM A SEQUENCING BATCH REACTOR WASTEWATER TREATMENT FACILITY.

Outfall: 001 Effective Dates: 12/01/2022 to 11/30/2027				
Parameter	**Season**	**Limit Type**	**Limits**	
CBOD5			**85% Removal Required**	
	Yearly	7 Day Average	40 MG/L	1,134 LBS/DAY
	Yearly	30 Day Average	25 MG/L	709 LBS/DAY
TOTAL SUSPENDED SOLIDS			**85% Removal Required**	
	Yearly	7 Day Average	45 MG/L	1,276 LBS/DAY
	Yearly	30 Day Average	30 MG/L	851 LBS/DAY
AMMONIA NITROGEN (N)				
	JAN	30 Day Average	17.6 MG/L	354.8 LBS/DAY
	JAN	Daily Maximum	17.6 MG/L	470.3 LBS/DAY
	FEB	30 Day Average	16.9 MG/L	407.4 LBS/DAY
	FEB	Daily Maximum	16.9 MG/L	446.3 LBS/DAY
	MAR	30 Day Average	11.3 MG/L	210.3 LBS/DAY
	MAR	Daily Maximum	17.0 MG/L	454.9 LBS/DAY
	APR	30 Day Average	8.5 MG/L	157.2 LBS/DAY
	APR	Daily Maximum	17.7 MG/L	477.9 LBS/DAY
	MAY	30 Day Average	9.7 MG/L	179.6 LBS/DAY
	MAY	Daily Maximum	17.3 MG/L	465.9 LBS/DAY
	JUN	30 Day Average	7.3 MG/L	135.4 LBS/DAY

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

Outfall: 001 Effective Dates: 12/01/2022 to 11/30/2027				
Parameter	**Season**	**Limit Type**	**Limits**	
AMMONIA NITROGEN (N)				
	JUN	Daily Maximum	16.5 MG/L	443.7 LBS/DAY
	JUL	30 Day Average	5.6 MG/L	103.6 LBS/DAY
	JUL	Daily Maximum	19.9 MG/L	538.1 LBS/DAY
	AUG	30 Day Average	5.3 MG/L	98.3 LBS/DAY
	AUG	Daily Maximum	18.4 MG/L	497.1 LBS/DAY
	SEP	30 Day Average	5.9 MG/L	109.0 LBS/DAY
	SEP	Daily Maximum	18.5 MG/L	501.8 LBS/DAY
	OCT	30 Day Average	8.7 MG/L	161.3 LBS/DAY
	OCT	Daily Maximum	17.7 MG/L	478.0 LBS/DAY
	NOV	30 Day Average	13.1 MG/L	241.2 LBS/DAY
	NOV	Daily Maximum	16.5 MG/L	447.5 LBS/DAY
	DEC	30 Day Average	13.9 MG/L	256.6 LBS/DAY
	DEC	Daily Maximum	17.9 MG/L	485.8 LBS/DAY
NITROGEN, TOTAL KJELDAHL (AS N)				
	Yearly	30 Day Average	252 LBS/DAY	
	Yearly	Daily Maximum	413 LBS/DAY	

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

Outfall: 001 Effective Dates: 12/01/2022 to 11/30/2027			
Parameter	**Season**	**Limit Type**	**Limits**
ACUTE TOXICITY, CERIODAPHNIA			
	Yearly	Daily Maximum	1 NO TOXICITY
ACUTE TOXICITY, PIMEPHALES			
	Yearly	Daily Maximum	1 NO TOXICITY
DISSOLVED OXYGEN			
	Yearly	Daily Minimum	1.2 MG/L
PH			
	Yearly	Daily Maximum	9.0 STD UNITS
	Yearly	Daily Minimum	6.3 STD UNITS
E. COLI			
	MAR	Geometric Mean	126 #/100 ML
	APR	Geometric Mean	126 #/100 ML
	MAY	Geometric Mean	126 #/100 ML
	JUN	Geometric Mean	126 #/100 ML
	JUL	Geometric Mean	126 #/100 ML
	AUG	Geometric Mean	126 #/100 ML
	SEP	Geometric Mean	126 #/100 ML
	OCT	Geometric Mean	126 #/100 ML
	NOV	Geometric Mean	126 #/100 ML

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:
(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

Facility Name: ADEL CITY OF STP
Permit Number: 2503001

Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location
The following monitoring requirements shall be in effect from 12/01/2022 to 11/30/2027				
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - TOTAL
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - STORM WATER BASIN RETURN
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - STORM WATER BASIN INFLUENT
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - MECHANICAL PLANT INFLUENT
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	2 TIMES PER WEEK	24 HOUR COMPOSITE	RAW WASTE
001	NITROGEN, TOTAL (AS N)	1 TIME PER WEEK	24 HOUR COMPOSITE	RAW WASTE
001	NITROGEN, TOTAL KJELDAHL (AS N)	1 EVERY MONTH	24 HOUR COMPOSITE	RAW WASTE
001	PH	2 TIMES PER WEEK	GRAB	RAW WASTE
001	PHOSPHORUS, TOTAL (AS P)	1 TIME PER WEEK	24 HOUR COMPOSITE	RAW WASTE
001	TEMPERATURE	2 TIMES PER WEEK	GRAB	RAW WASTE
001	TOTAL SUSPENDED SOLIDS	1 TIME PER WEEK	24 HOUR COMPOSITE	RAW WASTE
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	FINAL EFFLUENT
001	ACUTE TOXICITY, CERIODAPHNIA	1 EVERY 12 MONTHS	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
001	ACUTE TOXICITY, PIMEPHALES	1 EVERY 12 MONTHS	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
001	AMMONIA NITROGEN (N)	2 TIMES PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
001	CBOD5	2 TIMES PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
001	DISSOLVED OXYGEN	2 TIMES PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
001	E. COLI	GEO. MEAN 1/3 MONTHS	GRAB	EFFLUENT AFTER DISINFECTION
001	NITROGEN, TOTAL (AS N)	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
001	NITROGEN, TOTAL KJELDAHL (AS N)	1 EVERY MONTH	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
001	PH	2 TIMES PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
001	PHOSPHORUS, TOTAL (AS P)	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
001	TEMPERATURE	2 TIMES PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
001	TOTAL SUSPENDED SOLIDS	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

Special Monitoring Requirements

Outfall # **Description**

001 **FLOW**

To calculate the total raw waste flow (TOTAL RAW WASTE FLOW = MECHAINICAL PLANT INFLUENT+ INFLUENT TO STORM WATER RETENTION BASIN- STORM WATER BASIN RETURN)

NITROGEN, TOTAL (AS N)

Total nitrogen shall be determined by testing for Total Kjeldahl Nitrogen (TKN) and nitrate + nitrite nitrogen and reporting the sum of the TKN and nitrate + nitrite results (reported as N). Nitrate + nitrite can be analyzed together or separately.

E. COLI

The limit for E. coli specified in the limit pages of this permit is a geometric mean. The disinfection season is established in the Iowa Administrative Code, Subparagraph 567 IAC 61.3(3)“a”(1), and is in effect from March 15 to November 15. Any disinfection system (chlorine, UV light, etc.) shall be operated to comply with the limit during the entire disinfection season.

The facility must collect and analyze a minimum of five samples in one calendar month during each 3-month period from March 15 to November 15. The 3-month periods are March – May, June – August, and September – November. The collection of five samples in each 3-month period will result in a minimum of 15 samples being collected during a calendar year. For example, for the first 3-month period, the operator may choose April as the calendar month to collect the 5 individual E. coli samples to determine compliance with the limits. The operator may also choose the months of March or May as well, as long as each of the 5 samples is collected during a single calendar month. The same principle applies to the other two 3-month periods during the disinfection season. The following requirements apply to the individual samples collected in one calendar month:

Samples must be spaced over one calendar month.
No more than one sample can be collected on any one day.
There must be a minimum of two days between each sample.
No more than two samples may be collected in a period of seven consecutive days.

If the effluent has been disinfected using chlorine, ultraviolet light (UV), or any other process intended to disrupt the biological integrity of the E. coli, the samples shall be analyzed using the Most Probable Number method found in Standard Method 9223B (Colilert® or Colilert-18® made by IDEXX Laboratories, Inc.). If the effluent has not been disinfected the samples may be analyzed using either the MPN method above or EPA Method 1603: Escherichia coli (E. coli) in water by membrane filtration using modified membrane-thermotolerant E. coli agar (modified mTEC) or mColiBlue-24® made by the Hach Company.

The geometric mean must be calculated using all valid sample results collected during a month. The geometric mean formula is as follows: Geometric Mean = (Sample one * Sample two * Sample three * Sample four *Sample five…Sample N)^(1/N), which is the Nth root of the result of the multiplication of all of the sample results where N = the number of samples. If a sample result is a less than value, the value reported by the lab without the less than sign should be used in the geometric mean calculation.

E. COLI (Continued)
The geometric mean can be calculated in one of the following ways:

Use a scientific calculator that can calculate the powers of numbers.
Enter the samples in Microsoft Excel and use the function “GEOMEAN” to perform the calculation.
Use the geometric mean calculator on the Iowa DNR webpage at:
https://www.iowadnr.gov/Environmental-Protection/Water-Quality/NPDES-Wastewater-Permitting/NPDES-Operator-Information/Bacteria-Sampling

Facility Name: ADEL CITY OF STP
Permit Number: 2503001

ADDITIONAL OPERATING, MONITORING AND REPORTING REQUIREMENTS

1. In addition to the monitoring requirements specified elsewhere in this permit, by **December 1, 2023** you shall sample, analyze and submit the results of at least one analysis representative of the actual discharge for oil and grease, chloride, sulfate and nitrate + nitrite nitrogen from outfall 001 (SBR treatment facility). The samples you collect and analyze must be of the final effluent collected on a day when the plant is operating normally. The results of these analyses will be evaluated and the department will reopen this permit if it is determined that there is a reasonable potential for the discharge to cause or contribute to a violation of a water quality standard for any parameter. The lab report with the analysis results must be mailed to the address shown below within two months of permit issuance.

2. In addition to the monitoring requirements specified elsewhere in this permit, by **December 1, 2023** you shall sample, analyze and submit the results for one scan of Part B of the NPDES permit application from outfall 001 (SBR treatment facility). The samples you collect and analyze must be of the final effluent collected on a day when the plant is operating normally. The results of these analyses will be evaluated and the department will reopen this permit if it is determined that there is a reasonable potential for the discharge to cause or contribute to a violation of a water quality standard for any parameter. The lab report with the analysis results must be mailed to the address shown below within two months of permit issuance.

npdes.mail@dnr.iowa.gov
Subject: Effluent Test Results (2503001)
Part B Test Results (2503001)

Facility Name: ADEL CITY OF STP
Permit Number: 2503001

Significant Industrial User Discharges:

Significant Industrial User: SOUTH DALLAS COUNTY LANDFILL AGENCY

Outfall # **Outfall Description**

001 **LANDFILL LEACHATE IS PIPED TO THE WASTEWATER TREATMENT PLANT FOR DISPOSAL.**

Significant Industrial User Effluent Limitations

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

SOUTH DALLAS COUNTY LANDFILL AGENCY ***Outfall: 001 Effective Dates: 12/01/2022 to 11/30/2027***			
Parameter	**Season**	**Limit Type**	**Limit Values**
FLOW			
	Yearly	30 Day Average	0.020 MGD
	Yearly	DAILY MAXIMUM	0.026 MGD
BIOCHEMICAL OXYGEN DEMAND (BOD5)			
	Yearly	30 Day Average	139.0 LBS/DAY
	Yearly	DAILY MAXIMUM	216.7 LBS/DAY
TOTAL SUSPENDED SOLIDS			
	Yearly	30 Day Average	41.7 LBS/DAY
	Yearly	DAILY MAXIMUM	75.8 LBS/DAY
AMMONIA NITROGEN (N)			
	Yearly	30 Day Average	20.0 LBS/DAY
	Yearly	DAILY MAXIMUM	86.7 LBS/DAY
PH			
	Yearly	DAILY MAXIMUM	7.8 STD UNITS
	Yearly	DAILY MINIMUM	6.5 STD UNITS

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:
(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

Facility Name: ADEL CITY OF STP
Permit Number: 2503001

SOUTH DALLAS COUNTY LANDFILL AGENCY				
Outfall	**Wastewater Parameter**	**Sample Frequency**	**Sample Type**	**Monitoring Location**
001	AMMONIA NITROGEN (N)	1 EVERY MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	1 EVERY MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	FLOW	1 EVERY MONTH	24 HOUR TOTAL	PRIOR TO DISCHARGE TO CITY SEWER
001	PH	1 EVERY MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	SANITARY LANDFILL LEACHATE	1 EVERY 12 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	TOTAL SUSPENDED SOLIDS	1 EVERY MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER

Facility Name: ADEL CITY OF STP
Permit Number: 2503001

ADDITIONAL MONITORING REQUIREMENTS

SOUTH DALLAS COUNTY LANDFILL AGENCY

The permittee shall analyze a representative sample of the landfill leachate discharge from South Dallas County Landfill Agency at least annually for each of the pollutants listed below. In addition, the permittee shall monitor the volume of waste discharged and BOD5, TSS, Ammonia Nitrogen at the frequencies specified on page 12 of this permit.

Pollutant
Biochemical Oxygen Demand (BOD5)
Total Suspended Solids
Ammonia Nitrogen (NH3-N)
Oil and Grease (O&G)
pH
Chloride (as Cl)
Sulfate (as SO4)
Arsenic, Total (as As)
Chromium, Total (as Cr)
Copper, Total (as Cu)
Iron, Total (as Fe)
Lead, Total (as Pb)
Nickel, Total (as Ni)
Selenium, Total (as Se)
Zinc, Total (as Zn)
Benzoic Acid
Chlorobenzene
Ethylbenzene
p-Cresol
Phenol
Toluene

The permittee will indicate completion of the annual leachate monitoring by entering a “1” in the “LEACHAT” column on the Discharge Monitoring Report (DMR) spreadsheet on the day that the samples are collected. Select the No Discharge Indicator “NOT REQUIRED/MP” on the DMR spreadsheet during the months that the monitoring is not required.

Results of annual monitoring shall be submitted to the addresses below:

NPDES.mail@dnr.iowa.gov
Subject: Landfill Leachate Scan (2503001)

Iowa DNR Field Office 5
502 E. 9th St
Des Moines, IA 50319-0034

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

Outfall Number: 001

Ceriodaphnia and Pimephales Toxicity Effluent Testing

1. For facilities that have not been required to conduct toxicity testing by a previous NPDES permit, the initial annual toxicity test shall be conducted within three (3) months of permit issuance. For facilities that have been required to conduct toxicity testing by a previous NPDES permit, the initial annual toxicity test shall be conducted within twelve months (12) of the last toxicity test.

2. The test organisms that shall be used for acute toxicity testing are Ceriodaphnia dubia and Pimephales promelas. The acute toxicity testing procedures used to demonstrate compliance with permit limits shall be those listed in 567 IAC 63.4 and 40 CFR Part 136 and adopted by reference in rule 567 IAC 63.1(1). The method for measuring acute toxicity is specified in the EPA document EPA-821-R-02-012, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 5th edition, October 2002.

3. The diluted effluent sample must contain a minimum of 76.90 % effluent and no more than 23.10 % of culture water.

4. One valid positive toxicity result will require, at a minimum, quarterly testing for effluent toxicity until three successive tests are determined not to be positive.

5. Two successive valid positive toxicity results or three positive results out of five successive valid effluent toxicity tests will require a toxicity reduction evaluation to be completed to eliminate the toxicity.

6. A non-toxic test result shall be indicated as a "1" on the discharge monitoring report (DMR). A toxic test result shall be indicated as a "2" on the DMR. DNR Form 542-1381 shall also be submitted to the DNR field office along with the DMR.

Ceriodaphnia and Pimephales Toxicity Effluent Limits

The maximum limit of "1" for the parameters Acute Toxicity, Ceriodaphnia and Acute Toxicity, Pimephales means no positive toxicity results.

Definition: "Positive toxicity result" means a statistical difference of mortality rate between the control and the diluted effluent sample. For more information, see the EPA document EPA-821-R-02-012, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 5th edition, October 2002.

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

Design Capacity

Design: 2

The design capacity for the treatment works is specified in Construction Permit Number 2020-0362-S, issued April 24, 2020. The treatment plant is designed to treat:

* An average dry weather (ADW) flow of 0.980 Million Gallons Per Day (MGD).
* An average wet weather (AWW) flow of 3.400 Million Gallons Per Day (MGD).
* A maximum wet weather (MWW) flow of 5.440 Million Gallons Per Day (MGD).
* A design 5-day biochemical oxygen demand (BOD5) load of 1,935 lbs/day.
* A design Total Kjeldahl Nitrogen (TKN) load of 460 lbs/day.
* A design Total Suspended Solids (TSS) load of 6,015 lbs/day

Operator Certification Type/Grade: WW/III

Wastes in such volumes or quantities as to exceed the design capacity of the treatment works or reduce the effluent quality below that specified in the operation permit of the treatment works are considered to be a waste which interferes with the operation or performance of the treatment works and are prohibited by subrule IAC 567-62.1(7).

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

SEWAGE SLUDGE HANDLING AND DISPOSAL REQUIREMENTS

"Sewage sludge" is solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge does not include the grit and screenings generated during preliminary treatment.

1. The permittee shall comply with all existing Federal and State laws and regulations that apply to the use and disposal of sewage sludge and with technical standards developed pursuant to Section 405(d) of the Clean Water Act when such standards are promulgated. If an applicable numerical limit or management practice for pollutants in sewage sludge is promulgated after issuance of this permit that is more stringent than a sludge pollutant limit or management practice specified in existing Federal or State laws or regulations, this permit shall be modified, or revoked and reissued, to conform to the regulations promulgated under Section 405(d) of the Clean Water Act. The permittee shall comply with the limitation no later than the compliance deadline specified in the applicable regulations.

2. The permittee shall provide written notice to the Department of Natural Resources prior to any planned changes in sludge disposal practices.

3. Land application of sewage sludge shall be conducted in accordance with criteria established in rule IAC 567 67.1 through 67.11 (455B).

Facility Name: ADEL CITY OF STP

Permit Number: 2503001

SIGNIFICANT INDUSTRIAL USER LIMITATIONS, MONITORING AND REPORTING REQUIREMENTS

1. You must enforce the pollutant limits for each significant industrial user that are listed elsewhere in this permit. Violation of a treatment agreement limit is prohibited by subrule 567 IAC 62.1(6). Monitoring of each significant industrial user is required elsewhere in this permit.

2. Monitoring of each significant industrial user is required elsewhere in this permit. Results of the required monitoring shall be included on your discharge monitoring report, which must be submitted by the fifteenth of the following month.

3. You are required to notify the department, in writing, of any of the following:

   (a) 180 days prior to the introduction of pollutants to your facility from a significant industrial user. A significant industrial user means an industrial user of a treatment works that:
      (1) Discharges an average of 25,000 gallons per day or more of process wastewater excluding sanitary, noncontact cooling and boiler blowdown wastewater;
      (2) Contributes a process waste stream which makes up five percent or more of the average dry weather hydraulic or organic capacity of the publicly-owned treatment works:
      (3) Is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or
      (4) Is designated by the department as a significant industrial user on the basis that the contributing industry, either singly or in combination with other contributing industries, has a reasonable potential for adversely affecting the operation of or effluent quality from the publicly-owned treatment works or for violating any pretreatment standards or requirements.

   (b) 60 days prior to a proposed expansion, production increase or process modification that may result in the discharge of a new pollutant or a discharge in excess of limitations stated in the existing treatment agreement.

   (c) 10 days prior to any commitment by you to accept waste from any new significant industrial user. Your written notification must include a new or revised treatment agreement in accordance with rule 64.3(5)(455B).

4. You shall require all users of your facility to comply with Sections 204(b), 307, and 308 of the Clean Water Act.

   (a) Section 204(b) requires that all users of the treatment works constructed with funds provided under Sections 201(g) or 601 of the Act to pay their proportionate share of the costs of operation, maintenance and replacement of the treatment works.

   (b) Section 307 of the Act requires users to comply with pretreatment standards promulgated by EPA for pollutants that would cause interference with the treatment process or would pass through the treatment works.

   (c) Section 308 of the Act requires users to allow access at reasonable times to state and EPA inspectors for the purpose of sampling the discharge and reviewing and copying records.

Facility Name: ADEL CITY OF STP
Permit Number: 2503001

Nutrient Reduction Strategy Construction Schedule

Total Nitrogen and Total Phosphorus – Outfall 001

The City of Adel shall implement the strategy for reducing total nitrogen and total phosphorus in the final effluent. Construction of improvements shall be implemented according to the following schedule:

- Complete construction of improvements by **January 1, 2023.**
- Complete 1 year of treatment plant optimization for nutrient reduction by **January 1, 2024.**
- Submit one year of at least weekly total nitrogen and total phosphorus sampling data from the raw waste and final effluent by **February 1, 2025**. The report must include the results of all monitoring for total nitrogen and total phosphorus in the raw waste and final effluent between January 1, 2024 and December 31, 2024.

Progress reports shall be submitted by the required due dates. Within fourteen (14) days following all dates of construction completion, optimization completion, and one year of monitoring, the permittee shall provide written notice of compliance with the scheduled event along with any applicable data. All written notices and progress reports shall be sent to the following addresses:

npdes.mail@dnr.iowa.gov
Subject: NRS Report (2503001)

Iowa Department of Natural Resources
Environmental Services Division
Regional Office #5
502 East 9th Street
Des Moines, IA 50319

STANDARD CONDITIONS

1. **ADMINISTRATIVE RULES -** Rules of the Iowa Department of Natural Resources (department) that govern the operation of a facility in connection with this permit are published in Part 567 of the Iowa Administrative Code (IAC) in Chapters 60-65, 67, and 121. Reference to the term "rule" in this permit means the designated provision of Part 567 of the IAC. Reference to the term "CFR" means the Code of Federal Regulations.

2. **LIMIT DEFINITIONS -**
   (a) 7 day average means the arithmetic mean (average) of pollutant parameter values for samples collected in a period of seven consecutive days. The first 7-day period shall begin with the first day of the month. ***{567 IAC 60.2}***
   (b) 30 day average means the arithmetic mean of pollutant parameter values for samples collected in a period of 30 consecutive days. ***{567 IAC 60.2}***
   (c) Daily maximum means the total discharge by mass, volume, or concentration during a twenty-four hour period. ***{567 IAC 60.2}***

3. **MONITORING AND RECORDS OF OPERATION -**
   (a) Electronic reporting. Records of operation required by this permit shall be electronically submitted to the department within 15 days following the close of the monthly reporting period, in accordance with the monitoring requirements incorporated in this permit, unless an approval for paper submittal of records of operation has been obtained in accordance with 567 IAC 63.7(2).
   (b) Maintenance of records. You shall retain for a minimum of three years all paper and electronic records of monitoring activities and results including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records. ***{567 IAC 63.2(3)}***
   (c) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two years, or both. ***{40 CFR 122.41(j)(5)}***

4. **USE OF CERTIFIED LABORATORIES -** Analyses of wastewater, groundwater or sewage sludge that are required to be submitted as a result of this permit must be performed by a laboratory certified by the State of Iowa. Routine, on-site monitoring for pH, temperature, dissolved oxygen, total residual chlorine and other pollutants that must be analyzed immediately upon sample collection, physical measurements, and operational performance monitoring specified in 567 IAC 63.3(4) are excluded from this requirement. ***{567 IAC 63.1}***

5. **DUTY TO PROVIDE INFORMATION -** You must furnish to the director, within a reasonable time, any information the director may request to determine compliance with this permit or determine whether cause exists for amending, revoking and reissuing, or terminating this permit, in accordance with 567 IAC 64.3(11)"*c*". You must also furnish to the director, upon request, copies of any records required to be kept by this permit. If you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, you must promptly submit such facts or information. If you become aware that you failed to submit any relevant facts in any report to the director, including records of operation, you shall promptly submit such facts or information. ***{567 IAC 60.4(2)"a", 567 IAC 63.7(6), 40 CFR 122.41(h)}***

6. **DUTY TO REAPPLY AND PERMIT CONTINUATION -** If you wish to continue to discharge after the expiration date of this permit, you must file a complete application for reissuance at least 180 days prior to the expiration date of this permit. If a timely and sufficient application is submitted, this permit will remain in effect until the department makes a final determination on the permit application. ***{567 IAC 64.8(1), Iowa Code 17A.18}***

7. **DUTY TO COMPLY -** You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Iowa Code and the Clean Water Act and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Issuance of this permit does not relieve you of the responsibility to comply with all local, state and federal laws, ordinances, regulations or other legal requirements applying to the operation of your facility. ***{567 IAC 64.7(4)"E", 40 CFR 122.41(a)}***

8. **DUTY TO MITIGATE -** You shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. ***{567 IAC 64.7(7)"i", 40 CFR 122.41(d)}***

9. **PROPER OPERATION AND MAINTENANCE -** All facilities and control systems shall be operated as efficiently as possible and maintained in good working order. A sufficient number of staff, adequately trained and knowledgeable in the operation of your facility, shall be retained at all times. Adequate laboratory controls and appropriate quality assurance procedures shall be provided to maintain compliance with the conditions of this permit. ***{567 IAC 64.7(7)"f", 40 CFR 122.41(e)}***

10. **SIGNATORY REQUIREMENTS -** Applications, discharge monitoring reports, or other information submitted to the department in connection with this permit must be signed and certified in accordance with 567 IAC 64.3(8).

11. **TRANSFER OF TITLE OR OWNER ADDRESS CHANGE -** If title to your facility, or any part of it, is transferred, the new owner shall be subject to this permit. You are required to notify the new owner of the requirements of this permit in writing prior to any transfer of title. The department shall be notified in writing within 30 days of the occurrence. No transfer of the authorization to discharge from the facility represented by the permit shall take place prior to notifying the department of the transfer of title. Whenever the address of the owner is changed, the department shall be notified in writing within 30 days of the address change. ***{567 IAC 64.14}***

STANDARD CONDITIONS

12. **PERMIT MODIFICATION, SUSPENSION OR REVOCATION -** This permit may be amended, revoked and reissued, or terminated in whole or in part for cause including, but not limited to, those specified in 567 IAC 64.3(11)*"b"*. This permit may be modified due to conditions or information on which this permit is based, including any new standard the department may adopt that would change the required effluent limits. If a toxic pollutant is present in your discharge and more stringent standards for toxic pollutants are established under Section 307(a) of the Clean Water Act, this permit will be modified in accordance with the new standards. The filing of a request for a permit amendment, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. ***{567 IAC 64.3(11)"d", 64.7(7)"b" and "g", 40 CFR 122.62(a)(6)}***

13. **TWENTY-FOUR HOUR REPORTING -** You shall report any noncompliance that may endanger human health or the environment, including, but not limited to, violations of maximum daily limits for any toxic pollutant (listed as toxic in Section 307(a)(1) of the Clean Water Act) or hazardous substance (as designated in 40 CFR Part 116 pursuant to 311 of the Act). Information shall be provided orally to the appropriate regional field office of the department within 24 hours from the time you become aware of the circumstances. A written submission that includes a description of noncompliance and its cause; the period of noncompliance including exact dates and times; whether the noncompliance has been corrected or the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent a reoccurrence of the noncompliance must be provided to the appropriate field office within 5 days of the occurrence. ***{567 IAC 63.12, 40 CFR 122.41(l)(6)}***

14. **OTHER NONCOMPLIANCE -** You shall report all instances of noncompliance not reported under Condition #13 at the time discharge monitoring reports are submitted. The report shall contain the information listed in Condition #13. You shall give advance notice to the appropriate regional field office of the department of any planned activity which may result in noncompliance with permit requirements. Notice is required only when previous notice has not been given to any other section of the department. ***{567 IAC 63.7(5), 63.14 and 63.15, 40 CFR 122.41(l)(7)}***

15. **INSPECTION OF PREMISES, RECORDS, EQUIPMENT, METHODS AND DISCHARGES -** You are required to permit authorized personnel to:
    (a) Enter upon the premises where a regulated facility or activity is located or conducted or where records are kept under conditions of this permit;
    (b) Provide access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    (c) Inspect, at reasonable times, any facilities, equipment, practices or operations regulated or required under this permit; and
    (d) Sample or monitor, at reasonable times, to assure compliance or as otherwise authorized by the Clean Water Act.
    {567 IAC 64.7(7)"c", 40 CFR 122.41(i)}

16. **NOTICE OF CHANGED CONDITIONS -** You are required to notify the director of any changes in existing conditions or information on which this permit is based, including, but not limited to, the following:
    (a) If your facility is a publicly owned treatment works (POTW) or otherwise accepts waste for treatment from an indirect discharger or industrial contributor, you must notify the director if there is any substantial change in the volume or character of pollutants being introduced to the POTW by an indirect discharger or industrial contributor. See 567 IAC 64.3(5) and 64.7(7)"*d*" for further requirements. ***{40 CFR 122.42(b)}***
    (b) If your facility has a manufacturing, commercial, mining, or silviculture discharge, you must notify the director as soon as you know or have reason to believe that any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in this permit. ***{40 CFR 122.42(a)}***
    (c) You must notify the director if you have begun or will begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant which was not reported in the permit application. *{**40 CFR 122.21(g)(9)}***

17. **PLANNED CHANGES -** You shall give notice to the appropriate regional field office of the department 30 days prior to any planned physical alterations or additions to the permitted facility. Facility expansions, production increases, or process modifications which result in new or increased discharges of pollutants must be reported by submission of a new permit application. If any modification of, addition to, or construction of a disposal system is to be made, you must first obtain a written construction permit from this department. In addition, no construction activity that will result in disturbance of one acre or more shall be initiated without first obtaining coverage under NPDES General Permit No. 2.
    Notice is required only when:
    (a) Notice has not been given to any other section of the department:
    (b) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as defined in 567 IAC 60.2;
    (c) The alteration or addition results in a significant change in sludge use or disposal practices; or
    (d) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the permit.
    {567 IAC 63.13, 567 IAC 64.2 and 64.7(7)"a"}

18. **FAILURE TO SUBMIT FEES -** This permit may be revoked, in whole or in part, if the appropriate permit fees are not submitted within thirty (30) days of the date of notification that such fees are due. ***{567 IAC 64.16(1)}***

STANDARD CONDITIONS

19. BYPASSES - "Bypass" means the diversion of waste streams from any portion of a treatment facility or collection system. A bypass does not include internal operational waste stream diversions that are part of the design of the treatment facility, maintenance diversions where redundancy is provided, diversions of wastewater from one point in a collection system to another point in a collection system, or wastewater backups into buildings that are caused in the building lateral or private sewer line. ***{567 IAC 60.2)}***

(a) Prohibition. Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited, in accordance with 567 IAC 63.6(1). The department may not assess a civil penalty against a permittee for a bypass if the permittee has complied with all of the following:

i. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

iii. The permittee submitted notices as required by 567 IAC 63.6.

(b) Anticipated bypass. Except for bypasses that occur as a result of mechanical failure or acts beyond the control of the owner or operator of a waste disposal system (unanticipated bypasses), the owner or operator shall obtain written permission from the department prior to any discharge of sewage or wastes from a waste disposal system not authorized by this permit. The Director may approve an anticipated bypass after considering its adverse effects if the Director determines that it will meet the three conditions listed above and a request for bypass has been submitted to the appropriate regional field office of the department at least ten days prior to the expected event, in accordance with the requirements listed in 567 IAC 63.6(2).

(c) Unanticipated bypass. In the event that a bypass or upset occurs without prior notice having been provided pursuant to 567 IAC 63.6(2) or as a result of mechanical failure or acts beyond the control of the owner or operator, the owner or operator of the treatment facility or collection system shall notify the department by telephone as soon as possible but not later than 24 hours after the onset or discovery in accordance with the requirements in 567 IAC 63.6(3). A written submission describing the bypass shall also be provided within five days of the time the permittee becomes aware of the bypass, in accordance with the requirements in 567 IAC 63.6(3)"*d*".

(d) Reporting. Bypasses shall be reported in accordance with 567 IAC 63.6.

{567 IAC 63.6}

20. UPSETS - "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(a) Effect of an upset. An upset constitutes an affirmative defense to the assessment of a civil penalty for noncompliance with technology-based permit effluent limitations if the requirements of paragraph (b) of this condition are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(b) Conditions necessary for demonstration of an upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed operating logs or other relevant evidence, that;

i. An upset occurred and that the permittee can identify the cause(s) of the upset;

ii. The permitted facility was at the time being properly operated;

iii. The permittee submitted notice of the upset to the department in accordance with 567 IAC 63.6(3); and

iv. The permittee complied with any remedial measures required by the department in accordance with 567 IAC 63.6(6)"*b*"(4).

(c) Burden of Proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

{567 IAC 63.6}

21. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. ***{567 IAC 64.7(7)"j", 40 CFR 122.41(c)}***

22. PROPERTY RIGHTS - This permit does not convey any property rights of any sort or any exclusive privilege. ***{567 IAC 64.4(3)"b", 40 CFR 122.41(g)}***

23. EFFECT OF A PERMIT - Compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 307, 318, 403 and 405(a)-(b) of the Clean Water Act, and equivalent limitations and standards set out in 567 IAC Chapters 61 and 62. ***{567 IAC 64.4(3)"a"}***

24. SEVERABILITY - The provisions of this permit are severable. If any provision or application of any provision to any circumstance is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding.

SECTION E

Development and Operations Plan
Emergency Response and Remedial Action Plan
MSWLF Operator Certification Numbers

DEVELOPMENT AND OPERATIONS PLAN
EMERGENCY RESPONSE AND REMEDIAL ACTION PLAN
MSWLF OPERATOR CERTIFICATIONS

113.8(4) Development and Operations Plan

The Development and Operations Plans (DOP) has been revised and is included in Appendix 1 of this Section.

113.8(5) Emergency Response and Remedial Action Plan

The current Emergency Response and Remedial Action Plan (ERRAP) in included in Appendix 2 of this Section.

113.8(6) MSWLF Operator Certifications

MSWLF Operator Certification numbers for South Dallas County SLF employees are included in Appendix 3 of this Section.

APPENDIX 1

DEVELOPMENT AND OPERATIONS PLAN

The following is intended to comply with the requirements of subrule 567 IAC 113.8(4):

113.8(4) DEVELOPMENT AND OPERATIONS PLAN (DOPs)

Owner of the Facility

South Dallas County Landfill Agency
PO Box 263
Adel, IA 50003-0263
515-993-3148

Official Responsible for Operation of Facility

Shirley McAdon
South Dallas County Landfill Agency
PO Box 263
Adel, IA 50003-0263
515-993-3148

Certified Operator Responsible for Operation of Facility

Mike Fountas, Director
South Dallas County Sanitary Landfill
PO Box 263
Adel, IA 50003-0263
515-993-3148

Service Area of the Facility

The South Dallas County Sanitary Landfill Agency is a 28E organization and consists of one member, the City of Adel. The Agency is currently considered to be a part of the Metro Waste Authority Planning area.

Days and Hours of Operation

Monday through Friday from 7:00 AM – 3:00 PM
Saturday from 7:00 AM – 12 Noon

567-113.8(1) – Prohibited Operations and Activities

113.8(1)a. Waste screening for prohibited materials

1. The landfill staff inquires about non-accepted and prohibited items (e.g. tires, appliances, waste oil, etc.) at the scale. Operators at the working face visually screen waste as it is unloaded and during the spreading and compaction process, removing all prohibited items and reporting back to the scale attendant.

2. A more thorough waste screening of a random load (random load check) is typically conducted twice per month. Records of random load checks are maintained in the scale house.

3. All landfill staff receive training for waste screening as applicable.

4. Any prohibited waste observed by staff will be removed and handled as required by the operations plan and any State and Federal regulations. The appropriate State and Federal authorities will be notified if regulated hazardous waste or PCB waste is discovered at the facility.

5. Staff will maintain records of any rejected or problem waste discovered. Staff will also maintain records of any rejected loads and any actions that result in response to the presence of hazardous materials and/or PCB wastes in any load.

113.8(1)b. Materials prohibited from disposal

All materials listed in subrule 113.8(1) "b" are prohibited from disposal either by State or Federal regulation at the South Dallas County SLF. Household hazardous materials (HHM) are also accepted in conjunction with the MWA Regional Collection Center. HHM are sorted and temporarily stored on site in a satellite HHM building and transported to the MWA Regional Collection Center for ultimate disposal. White goods, electronics, batteries, scrap metal, tires, and waste oil and filters are accepted for recycling. The landfill also accepts brush, tree limbs, leaves, and grass that are temporarily stockpiled. When quantities warrant, this material is processed into mulch that is used on-site for erosion control and as a soil amendment.

Petroleum-contaminated soil is accepted for remediation and usage as alternative daily cover as provided for in the landfill permit. Non-hazardous items that may require special handling are accepted on a case-by-case basis.

113.8(1)c. Open burning and fire hazards

No open burning is allowed within the permitted boundary of the South Dallas County SLF. The fueling of all equipment and vehicles, and any other activities that may produce sparks, will be conducted at least 50 feet away from the working face. The facility utilizes an "ash box" for any resident bringing in "burn barrel" waste to avoid the possibility of hot coals being unloaded at the working face.

113.8(1)d. Scavenging and salvaging

Scavenging is prohibited at the South Dallas County SLF.

113.8(1)e. Animal feeding and grazing

No domestic animal feeding or grazing is allowed at the South Dallas County SLF.

567-113.8(2) – Disposal Operations and Activities

113.8(2)a. Survey controls and monuments

1. The property boundary and the permitted boundary of the South Dallas County SLF has been surveyed and marked by a professional land surveyor. The landfill also has equipment with GPS for monitoring waste disposal locations.

2. The boundaries of all new MSWLF units will be surveyed and marked by a professional engineer prior to the placement of waste.

3. Survey monuments have been established to check vertical elevations and the progression of fill sequencing. Permanent monuments will be established and maintained by a professional land surveyor.

4. All survey stakes and monuments are clearly marked.

5. A professional engineer will inspect the permanent survey monuments biennially. Any missing or damaged monuments will be replaced or repaired.

113.8(2)b. First lift

1. Waste will not be placed in a new disposal unit until the following occur:
    - A Quality Control and Assurance Report, in accordance with subrule 113.7(6)"d", documenting the construction of the disposal unit is submitted to the IDNR.
    - An IDNR Field Office #5 inspection is completed in accordance with subrule 113.4(6).

- The IDNR Central Office authorizes solid waste disposal in the new unit.

2. In most instances, construction and earth-moving equipment will not operate directly on the liner and leachate management system. However, operating equipment on the drainage layer is required to install the drainage layer material on the liner. A minimum of 1' of drainage layer material shall be maintained beneath vehicles with a ground pressure less than 5 psi, 2' for all other tracked vehicles and flotation tire equipped vehicles, and 3' for trucks and other wheeled hauling equipment. All vehicles shall minimize turning on the drainage layer material during delivery and placement.

   Small rubber tired ATV's may operate on the liner during FML liner installation. The ATV's shall have a ground pressure of less than 5 psi and shall meet FML manufacturer's requirements. Waste disposal operations will begin at the edge of the new disposal unit by pushing waste out over the liner and leachate collection system. Compactors and other similar heavy equipment will not operate directly on the leachate collection system until a minimum of 4 feet of waste has been mounded over the top of the leachate collection system.

3. Construction and demolition debris and materials clearly capable of spearing through the leachate collection system and liner will not be placed in the first 4 feet of waste over the top of the leachate collection system. The first 4 feet of waste shall consist of select waste that is unlikely to damage the liner and performance of the leachate collection system. The first 4 feet of waste shall also be lightly compacted to promote leachate migration to the drainage layer.

4. Documentation will be placed in the operating record and submitted to the IDNR that adequate cover material was placed over the top of the leachate collection system in any new disposal unit and/or that freeze/thaw effects had no adverse impact on the compacted clay component of the liner for all new waste disposal units. Note that this timeline is not applicable for side slopes "greater than 10 feet above the base liner". This is in accordance with the IDNR memo dated September 26, 2012.

<u>113.8(2)c. Fill sequencing</u>

1. The fill sequencing will be planned and conducted in a manner and at a rate that does not cause a slope failure, lead to extreme differential settlement, or damage the liner and leachate collection system.

2. The fill sequencing will be planned and conducted in a manner compliant with the run-on and runoff requirements of subrule 113.7(8) and surface water requirements of subrule 113.10. Earthen berms and terraces will be strategically placed about the workface to control run-on and runoff, and to help contain leachate and direct it into the leachate collection system.

113.8(2)d. Working face

1. The working face will be no larger than necessary to accommodate the rate of disposal in a safe and efficient manner. The size of the working face will be determined on a daily basis by landfill operators depending on weather conditions, wind speed and direction, anticipated waste volume, anticipated large loads, anticipated special waste, the available daily cover, surface water drainage, and other applicable factors.

2. The working face will not be so steep as to cause heavy equipment and solid waste collection vehicles to roll over or otherwise lose control.

3. Litter will be controlled primarily through the operational activities at the working face. The working face is sized using the factors discussed in Item (1) above to minimize blowing litter as much as practical. Temporary and boundary fences are also used to control litter. Litter will be collected as discussed in Section 113.8(3)”f” below.

4. Proper operating activities at the working face will prevent the harborage of vectors and minimize the attractions of vectors. This is mainly accomplished by the proper use of cover materials including approved alternative daily cover (ADC).

5. Employees at the working face have been trained to visually recognize universal symbols, markings, and indications of prohibited wastes pursuant to subrule 113.8(1)"b”. Such training was discussed in Section 113.8(1)”a”(3) above.

113.8(2)e. Special wastes

Special wastes are not accepted unless authorized by a special waste authorization (SWA) issued by the IDNR or as provided for in 567 IAC-109 and the landfill’s permit. SWA’s are not required for general special wastes consisting of asbestos-containing material; petroleum-contaminated soil; and stabilized grit, bar screenings, and grease skimmings. The acceptance of these special wastes at the landfill is not required. The disposal of special wastes and general special wastes will be in accordance with the instructions, conditions, and limitations contained in the SWA.

113.8(2)f. Cover material and alternative cover material

1. Daily Cover. Daily cover material will be applied to the waste in the active portion at the end of each operating day, or more frequently if necessary to control vectors, fires, odors, blowing litter, and scavenging. At least six inches of soil cover material or an approved alternative daily cover material will be used. Soil cover material is available from soil stockpiles.

At this time the South Dallas County SLF has been approved to use the following as Alternative Daily Cover (ADC): a tarp system and ground gypsum wallboard mixed with soil. Periodically, petroleum contaminated soil may be received and following remediation as prescribed in 567 IAC-109, may be used for daily cover.

2. Intermediate Cover. The landfill operator will apply at least one foot of intermediate cover of compacted earth to any area of the site that will not be utilized for further disposal of solid waste for more than 30 days. The landfill operator will apply at least two-feet of compacted earth to any area of the site that will not be utilized for further disposal of solid waste for more than 180 days. The cover will be graded to allow surface water runoff. The intermediate cover will be seeded if the area will not receive waste for a full growing season.

3. Scarification of Cover. Any cover that might prevent the downward migration of leachate and is at least 5 feet from the disposal unit boundary will be scarified prior to the use of that area as a working face. The removal of some of the cover material prior to the use of an area as a working face is allowed and encouraged to conserve airspace and promote the vertical migration of leachate to the leachate collection system.

4. Final Cover. Final cover over a waste disposal area that is to be closed shall be constructed and maintained according to the closure and postclosure requirements of 567 IAC 113.12 and 113.13 and in accordance with the approved Closure/Postclosure Plan unless amended and authorized by the IDNR.

113.8(2)g. Leachate seeps

Upon being identified, leachate seeps will be contained and repaired when weather and surface conditions allow. Any soils outside of the waste boundary that are contaminated by a leachate seep will be excavated and then disposed of within the landfill waste boundary. Soils contaminated with leachate may be used for daily cover material.

113.8(2)h. Leachate recirculation

Leachate recirculation over the Subtitle D composite lined areas was approved by IDNR on May 17, 2013.

113.8(2)i. Differential settlement

Those areas of differential settlement sufficient to interfere with runoff and run-on will be brought back up to the appropriate elevation of the surrounding cover and drainage restored as soon as practical. Areas where differential settlement occurs will be monitored after restoration.

567-113.8(3) Facility Operations and Activities

113.8(3)a. Controlled access

The entrance gate is locked during non-operating periods and restricts access to the site. Access to the site is also restricted using fencing, natural buffers, and site topography.

113.8(3)b. Scales and weights

All solid waste collection and transport vehicles are weighed on a scale upon entering the site. The current scale license from the Iowa Department of Agriculture and Land Stewardship is included in Appendix 2 of Section D of this Permit Renewal Documentation.

Information on the waste received and disposed of at the South Dallas County SLF is retained on site and is reported to the IDNR quarterly as part of the Quarterly Solid Waste Fee Schedule and Retained Fees Report, Form 542-3276.

113.8(3)c. All-weather access to disposal

All major internal roads are constructed with gravel, crushed concrete, or similar material and maintained in good condition for all weather access. The landfill maintains an all-weather fill area that is accessible during all weather conditions when solid waste is being received.

113.8(3)d. Salvaged and processed materials

The South Dallas County SLF accepts and recycles white goods, electronics, batteries, scrap metal, tires, and waste oil and filters. Household hazardous materials (HHM) are also accepted in conjunction with the MWA Regional Collection Center. HHM are sorted and temporarily stored on site in a satellite HHM building and transported to the MWA Regional Collection Center for ultimate disposal. The landfill also accepts brush, tree limbs, leaves, and grass that are temporarily stockpiled. All salvaged (recyclable) materials accepted at the landfill are stored and regularly removed in accordance with the special provisions of the landfill permit and any specific rules. The materials are stored in a manner that does not create a nuisance or encourage the attraction or harborage of vectors.

113.8(3)e. Vector control

The landfill operator maintains adequate cover over the workface and closed areas, which has proven to be effective in controlling flies, birds, rodents, and other vermin. Odors are also kept to a minimum by maintaining adequate cover. Salvage areas are kept neat and free of unrelated debris, limiting habitat for vectors.

113.8(3)f. Litter control

Litter will be confined to the property boundary through the use of fences and unloading and cover operating practices as much as practical. Portable litter fences near the working face and temporary fences located around the site serve to control blowing litter and to limit litter from entering neighboring properties. The operators spend time each day handpicking litter as needed. A litter log is maintained at the site to document litter collection efforts and weather related data.

113.8(3)g. Dust

All major internal roads are constructed with gravel, crushed concrete, or similar material and maintained in good condition for all weather access. A water truck is on-site and used for dust control when needed.

113.8(3)h. Mud

All major internal roads are constructed with gravel, crushed concrete, or similar material and maintained in good condition for all weather access. Trucks leaving the working face travel on gravel surfaced roads for over ½ mile prior to entering a public road. The maintenance of site roads along with the travel distance between the working face and the site entrance combine to limit the deposition of mud off the landfill site. If mud originating from the landfill is ever noted on the public road, the South Dallas County SLF staff will use its equipment and personnel to remove the mud from the roadway as soon as practical.

113.8(3)i. Leachate and wastewater treatment

The leachate management system is managed and maintained pursuant to the requirements of subrule 113.7(5)"b". The leachate collection system gravity piping is cleaned at least once every three years. The South Dallas County SLF leachate system included leachate collection within the Subtitle D compliant alternative lined areas (Phases 1 and 2) and the Subtitle D composite lined areas (Phases 3, 4, and 5). A pump station pumps the collected leachate through a force main to the City of Adel Sanitary Sewer System where it is combined with domestic sewage and is treated at the Adel POTW. Six leachate wells drilled into portions of the old NE and SW disposal sites also pump leachate through the force main to the City sewer system. The site also has two underground leachate storage tanks with a total capacity of 20,000 gallons. For additional details regarding the leachate management system, see the Design Plans and Specifications section of these Permit Renewal Documentation.

113.8(3)j. Financial assurance

The South Dallas County SLF currently uses a dedicated fund to meet Financial Assurance requirements. Updated closure/postclosure cost estimates, along with the "Municipal Waste Sanitary Landfill Financial Assurance Annual Report" form are submitted to IDNR prior to

April 1 of each year if possible. The Financial Assurance approval letter for 2025 is included in Section H.

APPENDIX 2

SOUTH DALLAS COUNTY LANDFILL

EMERGENCY RESPONSE AND REMEDIAL ACTION PLAN

[Subrule 113.8(5)]

Updated November 8, 2018

Update December 14, 2023

I. FACILITY INFORMATION

A. Permitted Agency – The South Dallas County Sanitary Landfill Agency

B. DNR Permit Number – Permit # 25-SDP-01-75P

C. Facility Description – The South Dallas County Landfill is a publicly owned municipal solid waste sanitary landfill providing service to residents and businesses in the City of Adel and customers per an agreement with Metro Waste Authority.

D. Responsible Official and Contact Information – The South Dallas County Landfill is owned and operated by the South Dallas County Landfill Agency.

- Landfill Director is Mike Fountas at 515-993-3148 or cell # 515-318-2585
- Chair of the Agency is Shirley McAdon at 515-993-4283 or home # 515-993-4862

E. Project Location

- Address: 2000 Main St.
  Adel, IA 50003
- Legal Description: N1/2, Sec. 30, T79N, R27W, City of Adel, Dallas County, Iowa

F. Site and Environs Map – Site maps are included in the Appendix

II. REGULATORY REQUIREMENTS

A. Iowa Code – This plan is designed to meet the requirement of Iowa Code 455B.306(6)"d" which requires the development of an ERRAP as part of the permitting procedures. The ERRAP plan is required to address the following:

- Establish provisions to minimize the possibility of fire or explosion.
- Establish provisions to minimize any releases to air, land, or water of pollutants that could threaten human health and the environment.
- Identification of possible occurrences that may endanger human health and environment.

This plan is also intended to comply with the IDNR rules 567-113.8(5) (455B).

B. Permit Requirements – This plan is specifically required in this facility's IDNR issued Sanitary Disposal Project Permit, provision #25 of the January 18, 2007 permit. Updates to this plan will be made when appropriate and revisions provided with each subsequent permit renewal application.

III. EMERGENCY CONDITIONS-RESPONSE ACTIVITIES- REMEDIAL ACTIONS

A. Failure of Utilities

1. **Electrical Failure -In case of short-term (less than 48 hrs) electrical failure:**
   - Contact the Landfill Director – # 515-993-3148 or # 515-318-2585
   - Contact the electric company – MidAmerican Energy # 888-427-5632
   - If the scale is inoperable, begin handwriting scale tickets and estimating vehicle volumes based upon acceptable conversion estimates or historical scale weights used by those vehicles that routinely use the landfill.
   - Provide flashlights, kerosene lamps, and/or lanterns to all staff members prior to darkness.
   - Do not use candles for light unless absolutely necessary because of the associated fire hazard.
   - During winter, provide alternative sources of heat for those staff members in the office or the shop. A small portable gasoline generator can be used to power small heaters and lights. Portable generators can be obtained from the City of Adel (# 515-993-4525) or local rental stores or area retailers.
   - Notify any additional staff or public that may be affected by the outage.

2. **Electrical Failure - In case of long-term (over 48 hrs.) electrical failure:**
   - Follow the above short term failures first.
   - If conditions prevent normal operation of the landfill, contact the local media and area haulers to arrange to close the landfill until electricity is restored or if closure is not feasible, arrange for shorter operating hours. Such action will require the following agencies/individuals be notified of the revised operational hours:
     - The local media, including the radios, newspapers, etc. and request they carry the notice on area news or post an advertisement of such action in the paper.
     - The local law enforcement agencies.
     - The area haulers that routinely use the landfill.
     - The city halls and courthouse and request they post appropriate notices.
   - Arrange for alternative power sources to operate the leachate pumping facilities. A generator can be obtained from the City of Adel (# 515-993-4525) or area retail stores. If the force main is not operational, the South Dallas County Landfill has a truck with tank that can haul the leachate to the City of Adel POTW. Sully Transport

(# 641-594-3435) can also be notified and their pumping truck used to pump out the leachate wet-wells and directly haul the leachate to the Adel POTW if necessary.

3. Failure of Other Utilities

- Water – The South Dallas County Landfill receives water from the City of Adel. Drinking water can be obtained if necessary from the local Culligan distributor at # 515-993-4203.
- The landfill uses propane gas, because natural gas is not available.
    - Periodically check the propane tank to assure that adequate volumes of fuel are available for heating. If the volume is low, notify the supplier for refueling. The landfill receives propane from Agriland F.S. in Winterset (# 515-462-2644)
- Phone outage – Contact the local phone service provider, GoTo Connect at 1-866-890-5574.

B. Weather-Related Events

1. Tornado –

- **Tornado watch** – Conditions are possible for a tornado to occur.
- **Tornado warning** – A tornado has been sighted or indicated by radar.

- In case of a tornado watch, staff will do the following:
    - Watch the sky and listen to the local radio or television for conditions.
    - Locate appropriate emergency supplies including battery-powered radio, mobile telephone, flashlights, spare batteries, etc.
    - Be prepared to seek shelter in the designated tornado shelter (office bathroom) as shown on the site map.
    - Notify customers and visitors of conditions and the location of the site's tornado shelter.
    - If funnel-shaped clouds are observed, immediately seek shelter and report the occurrence to the local law enforcement agency.

- In case of tornado sighting or tornado warning, staff will do the following:
    - Take immediate cover in the designated tornado shelter located in the office bathroom.
    - Staff will also immediately escort all visitors and customers to the tornado shelter.
    - Those staff members too far from the designated tornado shelter to safely reach it will take immediate cover in another substantial building. Avoid places with wide-span roofs. Stay away from windows and open spaces. Get under a heavy piece of furniture such as a desk or workbench.
    - If caught outside and unable to reach a building, take shelter in a culvert or ditch. Use arms to protect your head and neck. Be alert for flooding conditions.
    - Turn on the battery-operated radio or television and monitor the local station for the "all clear" announcement from authorities.
    - Staff and customers will remain sheltered until they can be determined that no further danger exists.

- Determine the extent of damage to the buildings and equipment. Note and avoid any downed power lines, electrical system damage, propane gas leaks from lines and tank, spilled fuels from equipment or storage tanks, damage to water and sewer lines, etc.
- Report the site conditions to the Landfill Supervisor. If downed power lines or propane gas leakage is occurring, notify the appropriate utility for assistance. Avoid the areas and warn others to stay away from these areas. If spillage of a fuel or regulated material occurred, notify the IDNR to report a hazardous spill. Take appropriate action to contain the spilled material and remediate the condition as detailed in Section C or D.
- The Landfill Supervisor and staff will determine if the site can be operated with the available equipment. If not, arrangements will be made to get back-up equipment.
- Evaluate the condition of water and sewage facilities.
- If the water system appears to be damaged, do not drink from it until tested and verified to be safe for human consumption. If necessary provide alternative sources of drinking water.
- Evaluate the condition of leachate collection and storage facilities.
- If appropriate, evaluate the condition of the landfill gas collection and venting system.
- Report any damage to the Secretary/Manager and Landfill Supervisor before proceeding with repairs.
- Document all damage with notes and photographs for insurance purposes.

2. Windstorms

- Downburst – a strong out rush of wind formed by rain-cooled air. Strong down bursts can produce extensive damage and are often mistaken for tornados, but have similar affects on buildings, trees, etc. A downburst can overturn a mobile home, tear roofs off buildings, and topple trees.
- Weather forecasters do not always provide a warning of a downburst because they are not easily predicted. However, if a warning of conditions being favorable for down bursts is heard, follow the same procedures as for a tornado watch.
- If a downburst occurs, follow the procedures indicated following a tornado warning.
- Document all damage with notes and photographs for insurance purposes.

3. Intense Rainstorms and Erosion

- Severe thunderstorm watch – indicates a severe thunderstorm with damaging winds 58 miles per hour or more or hail ¾ inch in diameter or greater is likely to develop.
- Severe thunderstorm warning – indicates a severe thunderstorm has been sighted or indicated on radar.
- Thunderstorm watch procedures:
  - Seek a safe place in a building.
  - Watch the sky and listen to the local radio or television station for weather updates.
  - Warn other staff and customers/visitors of pending weather conditions.
- Thunderstorm warning procedures:

- Instruct all staff and customers/visitors to go to a safe place in a substantial building or the designated tornado shelter.
- Monitor the battery-operated radio or television for weather conditions and the "all clear" report.
- Following the "all clear" report, account for all staff, customers and visitors.
- Determine if any injuries were received and provide first aid if appropriate. Call 911 for emergency personnel if injuries are serious or life threatening.
- Survey the site and buildings, particularly noting the conditions of the power lines, the propane gas, the roofs of the buildings, the equipment, etc.
- Document all damage with notes and photographs for insurance purposes.

4. Lightening Strikes - Lightening strikes can cause fires, can injure personnel and/or visitors/customers, can damage electrical power sources, and can cause damage to the facility equipment including pumps, scales, electronics, and other equipment.

- Following a significant strike of lightening that appears to have hit close, the employees on duty should contact other staff members to determine that no one was impacted by the lightening strike. If injury has been incurred, emergency assistance (911) must be contacted immediately. Depending upon the extent of injuries, appropriate first aid may be given. Unless danger is eminent, the injured should not be moved except by trained emergency workers.
- Following a significant lightening strike, the supervisor on duty should inspect the site buildings to determine if any damage or fire had result from a direct lightening hit. If a fire is observed, immediately call 911 and if safely done, begin fire control procedures. If the electrical wires appear to be damaged in any way by the lightening, immediately cordon off the area; if possible throw the main electrical breaker. Do not use water to fight an electrical fire.
- If electrical power sources have been partially or totally been affected by a lightening strike, the breaker box should be inspected and if danger is possible from shorting or overloading of circuits, the main power breaker should be shut down.
- If lightening has damaged the scale, staff should begin procedures to record vehicles and estimate tonnage according to the procedures in Section A-1.
- If lightening has significantly damaged leachate or groundwater pumps, landfill gas systems, or other site equipment, staff should check the appropriate breakers and contact an electrician for repairs or replacement. If the equipment will be out of commission for several days or more, a backup unit should be located for temporary usage. IDNR field office should be notified of equipment breakdown and the estimated schedule for repairs/replacement.
- Document all damage with notes and photographs for insurance purposes.

5. Flooding – An intermittent stream is located directly north of the landfill office. This stream has flooded the access road during the rains of 1993. However, the office and other buildings are at an elevation high enough that their being impacted by floods is unlikely. Since the 1993 floods, a much larger culvert was installed under the access road. It is unlikely to flood in the future. If the access road is washed out, the landfill has adequate equipment to repair the road. If this occurs, temporary shutdown procedures detailed in Section H-2 of this document will be implemented.

C. Fire and Explosions

1. Waste Materials

- **Load of Waste**
  - Upon discovery of a fire in a load of waste, immediately direct the vehicle to an isolated location away from all buildings and equipment. Have the driver unload the waste on dirt or a hard surfaced area.
  - Determine what material is burning and if appropriate use fire extinguishers or dirt to extinguish the fire. If the type of material that is burning cannot be determined or chemicals are involved in the fire, use only dirt to extinguish the fire.
  - Stay up wind of the fire at all times.
  - If conditions allow, spread the waste to be sure all burning material is extinguished and cover with additional dirt.
  - Do not put the debris with other waste for at least 24 hours to be sure the fire is totally extinguished and will not re-ignite.
  - After 24 hours and staff are assured that the fire will not re-ignite, transport the debris to the working face for proper disposal.
  - Document all damage with notes and photographs for insurance purposes.

- **Fire at the Working Face**
  - Post signs at the site entrance and other locations prohibiting smoking on the landfill site.
  - Upon discovery of a fire at the working face, immediately notify the gate attendant to redirect customers to another disposal area.
  - Determine what waste is burning and whether it can be safely extinguished with a hand held extinguisher.
  - If not, determine if the burning waste can be safely excavated from the rest of the non-burning waste. If possible, separate the burning waste and extinguish it with available cover dirt.
  - If the waste cannot be safely separated, cover all of the working face with available cover dirt.
  - Monitor the location for several days to determine if the fire is totally extinguished.
  - After several days and after determining no smoke is occurring from the area, excavate the working face to further assess whether the fire is totally extinguished.
  - Rebury all waste after determining that the material cannot re-ignite.
  - Document all damage with notes and photographs for insurance purposes.

2. Buildings and Site

Basic fire training should be provided to all staff and should include:

- The location of all fire extinguishers and water sources.
- Operation of a fire extinguisher.
- The location of all exits for all buildings.
- The location of emergency phone numbers.

- Basic emergency training including how to extinguish burning clothing on a person and how to treat burn wounds.

Fire Occurrence Procedures

- Upon determination of a fire in any of the buildings on-site, staff will immediately assess the situation and determine the size of the fire, the material burning, and its location relative to other flammables or explosives.
- If fire extinguishers or a water source can be used to **safely** control the fire, staff with proper training can attempt to extinguish the fire.
- If the fire is too large or dangerous or located close to highly flammable or explosive materials, immediately evacuate the area and call 911 for emergency assistance.
- Provide adequate directions and details to the 911 operators to expedite the emergency vehicles to the site.
    - Give the operator your name, explicit details regarding the nature of the emergency, the address of the emergency, any injuries, and other requested information.
    - Stay on the line unless instructed to hang up or unless personal safety is jeopardized.
    - Directions to the landfill site:
        - From the Adel Fire Dept., take Main Street west to the landfill entrance road, approximately one mile. Turn down the entrance road for approximately ¼ mile.
- Evacuate all staff and customers/visitors and direct them to a safe area away from the fire. Be aware of the wind direction and its potential influence on a fire.
- Never reenter a burning building.

3. Equipment – All equipment should be provided with a fire extinguisher that is routinely checked for operational compliance according to the OSHA and State Fire Marshall requirements.

- If a fire in a machine is observed, the operator should immediately leave the machine, being sure to turn off the ignition and park the machine so it does not roll.
- Direct all other equipment and individuals away from the area.
- If the fire is small enough to control with a portable fire extinguisher and can be done safely, staff can make the attempt to extinguish the fire.
- In some cases, opening the engine hood and spraying the fire extinguisher at the base of the flames can extinguish an engine fire. Beware that the hood release may get too hot to open and can burn hands.
- If the fire is too large or too dangerous, immediately call 911 or have the scale attendant call for emergency equipment to assist in extinguishing the fire.
- Because other materials may also catch fire (i.e. fuel tank, garbage, etc.) be sure to keep all other vehicles and individuals far enough from the fire in case an explosion or flash fire occurs.
- Document all damage with notes and photographs for insurance purposes.

4. Fueling Locations – Fuel storage areas are always a potential source for major fires if an ignition source sparks a fire. Such sources can include a carelessly disposed of cigarette, an electrical short in a wire or extension cord, a spark from a battery or other engine component or even static electricity. General safety procedures should include the following:

- Post signs and enforce a ban on smoking and open flames in the vicinity of the fueling area and storage tanks.
- Shut down all vehicles and equipment while refueling.
- Monitor the fueling process at all times. Do not allow the operator to wander away or be distracted by other tasks or visitors.
- Be sure all pumps and storage tanks are properly grounded.
- Small volumes of fuels should only be stored in non-leaking, approved containers and must be properly labeled as to their contents.
- Small containers of fuel should be stored in a proper storage area and the location posted for the type of fuel/chemicals in storage.
- All containers should have tightly sealed lids to prevent spillage or the escape of fumes.
- When poring from portable fuel containers, always use a funnel or spout to prevent spillage.
- If spillage occurs during any fueling incident, immediately contain and/or absorb the spilled fuel with absorbent materials. Adequately ventilate any building or equipment prior to starting the equipment, smoking, or using a device that might cause a spark.
- Do not try to weld, use a cutting torch, or jump-start a vehicle with spilled fuels in the work area.
- Document all damage with notes and photographs for insurance purposes.

5. Utilities – Following a fire in or near a building, the following should be checked:

- Electrical power wires, control boxes, outlets, and other appurtenances should be checked for visual and structural damage. If burn marks, melted insulation, and smoke damage is observed, do not use the power source for any purpose until checked and repaired by an authorized and knowledgeable electrician.
- Observe any propane gas services for smoke or fire damage. If evidence of exposure to the fire is noted, close down all valves, and do not use until inspected by an authorized repairperson.
- Check all water pumps and sewage system pumps for damage prior to using them if they were exposed to the fire or to water used to extinguish the fire.

6. Facilities – Following assessment of the damage caused by a fire and the Manager determines that the fire has impacted the operational capabilities of the landfill; the following will need to be conducted:

- Determine as best possible an estimated schedule to be back up and operational.
- If the site will be inoperable for more than 24 hours, contact the Metro Waste Authority Landfill (# 515-967-2076), to arrange for planning area waste to be directed to the alternative disposal site. Begin notifying the area haulers, City of Adel, media, etc. with the site conditions and the alternative disposal options.

- Post signs at the gate and other locations regarding the temporary closing of the facility.
- Document all damage with notes and photographs for insurance purposes.

7. Working Area – Actions to follow regarding a fire at the working face was described earlier in Section C-1 and includes the following procedures:

- Upon discovery of a fire at the working face, immediately notify the gate attendant to redirect customers to another disposal area.
- Determine what waste is burning and whether it can be safely extinguished with a hand held extinguisher.
- If not, determine if the burning waste can be safely excavated from the rest of the non-burning waste. If possible, separate the burning waste and extinguish it with available cover dirt.
- If the waste cannot be safely separated, cover all of the working face with available cover dirt.
- Monitor the location for several days to determine if the fire is totally extinguished.
- After several days and after determining no smoke is occurring from the area, excavate the working face to further assess whether the fire is totally extinguished.
- Rebury all waste after determining all risk of re-igniting has passed.

8. Hot Loads – Procedures to follow in the event a "hot load" is received were described earlier in section C-1 and include the following procedures:

- Upon discovery of a fire in a load of waste, immediately direct the vehicle to an isolated location away from all buildings and equipment. Have the driver unload the waste on dirt or a hard surfaced area.
- Determine what material is burning and if appropriate use fire extinguishers or dirt to extinguish the fire. If the type of fire cannot be determined or chemicals are involved in the fire, use only dirt to extinguish the fire.
- If conditions allow, spread the waste to be sure all burning material is extinguished and cover with additional dirt.
- Do not put the debris with other waste for at least 24 hours to be sure the fire is totally extinguished and will not re-ignite.
- After 24 hours and staff are assured that the fire will not re-ignite, transport the debris to the working face for proper disposal.

9. Waste Gases – Landfill gases escaping from the site can be flammable and explosive depending upon the concentration of gas and the amount of oxygen available for combustion. For that reason, Section 567-103.2(15) of the IDNR rules requires at least quarterly monitoring of the property line and all structures for methane gas. If a building is not equipped with a continuously monitoring alarm system for methane gas, a calibrated, explosive detection meter should be used frequently to monitor methane gas concentrations.

Methane gas is explosive at concentrations between 5% and 15% methane gas. A reading less than 5% methane gas will not have enough methane to explode. A reading greater than 15% will not have enough oxygen to cause an explosive condition. However, even though

the accumulated concentration may not be explosive, it can still burn if there is enough methane gas.

Methane gas is a colorless, odorless gas that tends to be lighter than air but can still accumulate in low lying areas and confined spaces. (The odor attributed to landfill gas is from the decomposition of sulfur and other gases from wastes.) Methane gas will follow conduits, trenched lines, rocky/sanding soil seams, etc. and accumulate in buildings and structures. For that reason, do not enter any scale pits, wet wells, pumping pits, buildings that have been closed for an extended time, or similar structures unless the testing of the air has confirmed methane gas is not present.

Because methane gas frequently follows trenches and conduits into buildings, be sure all underground lines coming into a building do not pass near filled landfill areas or if they do, be sure a venting system (active or passive) is installed prior to the wire entering the building. If a contractor is laying an underground cable or similar underground work, be sure to notify him of the activity and to monitor the work so that precautions are taken before, during and after the work is conducted.

If a methane gas alarm occurs or testing indicates methane gas at concentrations of 1.25% which is equal to 25% of the LEL:

- Immediately shut down all electronics, lights and other equipment.
- Shut down all sources of potential ignition or flame, i.e. electric power, gas water heater, etc. Do not allow smoking, a candle, or the use of a torch in the structure.
- Immediately evacuate all personnel, customers, and visitors from the building or structure.
- Ventilate the structure by opening windows and doors.
- Contact the Landfill Supervisor or Secretary/Manager and arrange for trained personnel to conduct methane gas testing.
- Determine the source of the gas and prevent its reentering the structure before resuming activities in the building/structure.
- If a fire or explosion occurs before the source of the gas can be eliminated, immediately call 911 and arrange for emergency personnel to assist. Notify the emergency responders of the possibility of gas.
- Notify IDNR Field Office #5 (# 515-725-0268) of a methane gas problem.

10. Evacuation – In case of fire or explosions due to any of the described occurrences, all staff should be aware of the following:

- The location of all building exits.
- The location of all fire extinguishers.
- The location of the main power shut off and the propane/natural gas shut off valve.
- The location of the Emergency Assembly Point.
- Following evacuation of a building or structure, the on-site supervisor will contact emergency personnel as necessary and the Secretary/Manager for further directions.

D. Regulated Waste Spills and Releases

Regulated materials are those banned from land disposal or whose disposal is regulated by Federal or State rules or laws. Regulated materials do not include those considered to be hazardous under the Federal EPA Resource Conservation and Recovery Act. Those are further discussed in Section E. Regulated materials could include, but not be limited to, waste oil, fuels, refrigerants, agricultural chemicals, etc.

1. Waste Materials – Gate staff are trained to inspect all incoming loads. Upon observation of any waste materials believed to be regulated by State or Federal laws, staff will immediately:

- Determine as best possible, the nature of the waste. Staff should note the color, odor, and quantity of material and the transporter of the waste/material.
- If the waste has an odor and/or is potentially explosive, immediately evacuate all personnel and customers/visitors from the area and call a HAZMAT response team (# 515-993-2134).
- Immediately eliminate all sources of ignition and fire from the vicinity, including vehicles with their engines running. Shut down the electrical power in the area if appropriate.
- If the waste is a liquid and equipment can be safely operated in the area, place berms or absorbent materials around the waste to prevent its spreading.
- If the containment of the spill can be done safely, staff will use absorbents or dirt berms to prevent the escape of the spilled material.
- With authorization from the Secretary/Manager, if the staff can safely conduct on-site cleanup, the spilled material will be absorbed and/or shoveled into an empty container and sealed for disposal as necessary for the regulated material.
- All contaminated absorbents will also be handled as regulated waste.
- Contact IDNR to report the spill.
- If needed to determine the nature of the waste, contact a chemist or HAZMAT responder to assist in the identification and procedures for clean up.
- If possible, record the source of the waste, the hauler, the time, and the vehicle license number.
- Take photos of the waste and the site to document conditions for the insurance companies or for litigation purposes if required.

2. Leachate – Should leachate be spilled while pumping into the transfer tank, the following actions will be followed:

- Staff will immediately shut off all pumping facilities.
- Staff will use on-site absorbent materials to prevent any run-off.
- If necessary, staff will radio for an equipment operator to immediately construct earthen berms around the spillage. Every effort must be made to prevent leachate from leaving the site or entering surface water.
- Contact the Operations Supervisor or Secretary/Manager for further instructions.
- If a large quantity of leachate was spilled and contained, and it is feasible, pumping of the spilled leachate into the storage tank or the transfer vehicle will be performed.

- Contact the IDNR Field Office #5 (# 515-725-0268) of the spill.
- Because the leachate load-out facilities are located on the landfill property, any spillage will be contained on-site and clean up of the contaminated soil may not be necessary.

If spillage of leachate occurs off the site, the following actions will be taken:

- Immediately shut down any valves or piping that may be contributing to the spill.
- If quantities are significant and cannot be easily cleaned up with absorbent pads, immediately contact the Secretary/Manager for further instructions.
- Use whatever is available to prevent the leachate from spreading or entering surface water. If available, use a shovel to construct dirt berms around the spilled leachate.
- Notify IDNR Field Office #5 (# 515-725-0268) of the spill.
- Document the quantity of leachate and location of the spill.

3. Waste Gases – Since the South Dallas County Landfill does not have a landfill gas collection or venting system, the unauthorized release of waste gases will not knowingly occur. If waste gases are detected in a building or structure, many of the same procedures described for methane gas releases will be followed:

- Immediately shut down all electronics, lights and other equipment.
- Shut down all sources of potential ignition or flame, i.e. electric power, gas water heater, etc. Do not allow smoking, a candle, or the use of a torch in the structure.
- Immediately evacuate all personnel, customers, and visitors from the building or structure.
- Ventilate the structure by opening windows and doors.
- Contact the Secretary/Manager and arrange for trained personnel to conduct methane gas testing.
- Determine the source of the gas and prevent its reentering the structure before resuming activities in the building/structure.
- If a fire or explosion occurs before the source of the gas can be eliminated, immediately call 911 and arrange for emergency personnel to assist. Notify the emergency responders of the possibility of gas.
- Notify IDNR Field Office #5 (# 515-725-0268) of a gas problem.

If a gas release is detected leaving the property, the following actions will be followed:

- Determine the extent of the release and the potential pathway of the landfill gas.
- If the gas will potentially impact off-site buildings or structures, immediately notify the inhabitants and property owners to evacuate.
- Notify the emergency personnel of the potentially dangerous situation.
- Contact the Secretary/Manager for further directions.
- If the gas will not impact off-site buildings or structures, determine the extent of the gas plume and the source of the gas.
- Contact the Secretary/Manager for further directions.
- Report the situation to IDNR Field Office #5 (# 515-725-0268).

No other waste gases are expected at this site.

4. Waste Stockpiles and Storage Facilities – Spills from leachate storage facilities have been discussed earlier. Spills from fuel storage areas will be controlled by:

- Immediately closing down all values and pumps to prevent further releases.
- Immediately shutting down all power and ignition sources if the fuel is highly flammable (i.e. gasoline or similar).
- Notify the Operations Supervisor.
- Take steps to contain the spillage including placement of absorbents and/or dirt berms.
- Conduct appropriate cleanup procedures for the type of materials spilled.
- Notify IDNR Field Office #5 (# 515-725-0268) of the spill incident.

The landfill does temporarily stockpile tires in a building for collection by a tire processor. Demanufactured appliances and scrap metal are also stockpiled until collected and baled by a scrap dealer. Lead-acid batteries are temporarily stored in a used freezer until taken to a recycler. All of these wastes are stored in accordance with the IDNR regulations and are unlikely to create a spill and/or potential environmental concern.

5. Waste Transport Systems – South Dallas County Landfill only transports leachate from the site. Procedures for the control and clean-up of leachate spilled during transport are as follows:

- Immediately shut down any valves or piping that may be contributing to the spill.
- If quantities are significant and cannot be easily cleaned up with absorbent pads, immediately contact the Operations Supervisor or Secretary/Manager for further instructions.
- Use whatever is available to prevent the leachate from spreading or entering surface water. If available, use a shovel to construct dirt berms around the spilled leachate.
- Notify IDNR Field Office #5 (# 515-725-0268) of the spill.
- Document the quantity of leachate and location of the spill.

6. Litter and Airborne Particulates – The control of litter and dust are ongoing activities at all landfills. Litter is controlled by:

- Placement of permanent fencing around the site perimeter.
- Placement of temporary fencing near the working faces.
- Routine handpicking by staff and temporary help to collect blown litter.
- Routine handpicking from ditches and streams to recover litter that may have been carried by surface water.
- Placement of dirt stockpiles near the working faces to act as wind diversions.
- Periodic sprinkling of the working face with cover materials during the day to hold loose waste.
- Requiring incoming vehicles to tie down and cover the waste with tarps.

Airborne particles (dust) are controlled by:

- Periodic sprinkling of the access roads with water to reduce dust during dry weather.

7. Site Drainage Systems – Sewage treatment at the South Dallas County Landfill is by a septic tank and laterals. The system has been installed and inspected and no unregulated release is expected. If a regulated waste such as oil, fuels or similar are discharged to the sewage system, the following actions will be taken:

- Immediately attempt to contain the spillage using absorbent materials such as towels, "pigs", floor dry, etc.
- Cease usage of toilets, sinks, and other facilities that discharge to the septic system.
- Notify the Secretary/Manager.
- After assessing the material and hazardous nature of the material, use the landfill leachate tank truck to pump out any contaminated materials or contact a septic tank servicing company (Jim's Johns # 515-288-0924) for assistance.
- Contact IDNR Field Office #5 (# 515-725-0268) for proper disposal options.
- Depending upon the type of spilled material, the septic hauling company can be authorized to take the waste to a permitted waste water treatment facility (POTW) or disinfect and land apply the waste.
- If necessary, provide alternative toilet and washing facilities for staff and customers.

8. Off-Site Releases – If staff is aware of a release of any chemical, fuel, or other regulated material off the landfill property that will impact the operations of the landfill or access to the landfill, the following actions will be taken:

- Assess the extent of the spill, the type of material, and any circumstances that would potentially endanger health or the environment.
- If necessary evacuate personnel and customers/visitors.
- Contact the local emergency personnel and the Secretary/Manager for instructions.
- Shut down operations if necessary and notify haulers and regular customers. If shut down is expected for more than 24 hrs or an alternative disposal site is necessary, contact the Metro Waste Authority Landfill, #515-967-2076, to arrange for their acceptance of the planning area waste.
- Notify the communities, the media, and the IDNR Field Office #5 (# 515-725-0268).

E. Hazardous Material Spills and Releases -- Hazardous Materials are those regulated by Federal law (RCRA, SARA, CERCLA, etc.) and that in a broad sense include:

- Explosives, flammables, corrosive, oxidizing, toxic, infectious, or radioactive materials/wastes.
- Those materials/wastes that may place the public in immediate danger from exposure, contact, inhalation, or ingestion.

1. Load Check Control Points – Gate attendants are trained to inspect all incoming loads. If staff observes hazardous materials at the scale while checking incoming loads, the following actions will be taken:

- Trained personnel will immediately determine the type of material and the hazards it may pose by either asking the driver, by odor detection, or by visual observations. Staff should note the color, odor, and quantity of the waste/material.
- Staff will approach and remain upwind at all times from an unknown spill.

- If flammable, toxic, volatile, explosive or similar in nature, staff will immediately evacuate the area and call for trained HAZMAT emergency responders (#515-993-2134).
- If staff cannot identify the material, staff is instructed to assume the worse case scenario and evacuate the area until trained hazardous material responders arrive.
- If appropriate, staff will instruct the driver to shut down the vehicle and evacuate also.
- Staff will close down the access road and restrict further access to the area.
- If appropriate, those staff members trained for handling hazardous spills will establish a "hot zone" and a "safe zone".
- Staff will contact the Secretary/Manager.
- If the containment of the spill can be done safely, staff will use absorbents or dirt berms to prevent the escape of the spilled material.
- With authorization from the Secretary/Manager, if the staff can safely conduct on-site cleanup, the spilled material will be absorbed and/or shoveled into an empty container and sealed for disposal at a hazardous waste facility.
- All contaminated absorbents will also be handled as hazardous waste.
- The IDNR Field Office #5 (# 515-725-0268) will be notified of the hazardous spill situation.
- The driver/hauler of the spilled material will be contacted for responsibility of the disposal requirements.
- Staff will take photos of the spill and vehicle for documentation and insurance purposes.

2. Mixed Waste Deliveries – If staff becomes aware of a load of waste being delivered mixed with hazardous waste, it will be assumed the entire load is hazardous until testing documents otherwise. If a mixed load of hazardous and regular waste is received and detected by staff, the following will be followed:

- Staff will attempt to determine the hazardous nature of the waste and its threat to health.
- If appropriate due to the wastes toxicity, instability, or flammability, personnel and customers will be evacuated from the area.
- If necessary, staff will contact emergency personnel for assistance.
- If the load can be safely isolated from the working face and other deposited waste, the operator will attempt to do so.
- If necessary, dirt berms or absorbents will be used to contain any run-off from the load.
- The Secretary/Manager and the IDNR Field Office #5 (# 515-725-0268) will be notified.
- If appropriate, samples will be taken to determine if the load is hazardous or can be safely landfilled.
- Photos will be taken to document the situation.
- The hauler will be contacted for information regarding the generator of the waste and responsibility of the clean up.
- Cleanup will depend upon the materials involved and the directions from the IDNR.

3. **Fuels** – Response by staff to the spillage of fuels will include:
   - Staff will immediately shut off all fuel pumping facilities.
   - Staff will use on-site absorbent materials to prevent any run-off and to cleanup the spillage.
   - If necessary, staff will radio for an equipment operator to immediately construct earthen berms around the spillage. Every effort will be made to prevent any fuels from leaving the site or entering surface water.
   - Staff will contact the Operations Supervisor and Secretary/Manager.
   - Staff will initiate cleanup of the spilled fuel with absorbents.
   - If feasible, staff will transfer off contents of the storage vessel to an alternative vessel.
   - Contaminated soils will be spread in the appropriate petroleum contaminated soil area for proper aeration. Aeration will continue until it meets the requirements of the IDNR rules.
   - Contaminated absorbents will be aerated as much as possible and disposed of in the landfill.
   - IDNR will be notified if the quantity spilled is reportable according to the IDNR "Guidelines" provided in the Appendix.
   - Cleanup will continue until all contamination has been removed.
   - Testing of the contaminated soil will be conducted in accordance with IDNR regulations and the site permit requirements.
   - If the spill of fuel occurs from a hauler's vehicle or due to an accident, photos to document the site condition will be gathered.

4. **Waste Gases** – The South Dallas County Landfill does not have an active or passive landfill gas collection system. As discussed previously, if methane gas is detected in any structure by an alarm, a gas detection meter, or by detection of landfill gas odors, the following actions will be followed:
   - Immediately shut down all electronics, lights and other equipment.
   - Shut down all sources of potential ignition or flame, i.e. electric power, gas water heater, etc. Do not allow smoking, a candle, or the use of a torch in the structure.
   - Immediately evacuate all personnel, customers, and visitors from the building or structure.
   - Ventilate the structure by opening windows and doors.
   - Contact the Secretary/Manager and arrange for trained personnel to conduct methane gas testing.
   - Determine the source of the gas and prevent its reentering the structure before resuming activities in the building/structure.
   - If a fire or explosion occurs before the source of the gas can be eliminated, immediately call 911 and arrange for emergency personnel to assist. Notify the emergency responders of the possibility of gas.
   - Notify IDNR Field Office #5 (# 515-725-0268) of a methane gas problem.

The same procedures will apply for any gases that are received in the waste and are believed to be hazardous.

5. Site Drainage Systems – Although unlikely, if hazardous wastes are spilled or released into the landfill's sewage system, the following actions will be taken:

- Immediately attempt to contain the spillage using absorbent materials such as towels, "pigs", floor dry, etc.
- Assess the type of material spilled. If it is explosive, flammable, and reactive or have a similar nature where lives might be endangered, immediately evacuate the buildings and area near the spill and near the septic system.
- Cease usage of toilets, sinks, and other facilities that discharge to the septic system.
- Notify the Secretary/Manager and IDNR Field Office #5 (# 515-725-0268) of the hazardous spill.
- After assessing the material and hazardous nature of the material and if authorized to proceed with cleanup, contact a septic tank servicing company (Jim's Johns # 515-288-0924) for assistance in pumping out any contaminated materials.
- Contact IDNR Field Office #5 (# 515-725-0268) for proper disposal options.
- Testing of the contaminated material may be required.
- Wait for IDNR Field Office authorization before proceeding with the disposal of any contaminated materials.
- Depending upon the type of spilled material and the test results, the septic company may be authorized to take the waste to a permitted waste water treatment facility (POTW) or disinfect and land apply the waste.
- If necessary, provide alternative toilet and washing facilities for staff and customers.

6. Off-Site Releases - If staff is aware of a release of any hazardous material from a source near the landfill property that could impact the operations of the landfill or access to the landfill, the following actions will be taken:

- Assess the extent of the spill, the type of material, and any circumstances that would potentially endanger health or the environment.
- If necessary evacuate personnel and customers/visitors.
- Contact the local emergency personnel and the Secretary/Director for instructions.
- Shut down operations if necessary and notify haulers and regular customers. If shut down is expected to occur for more than 24 hrs and/or an alternative disposal site is necessary, contact the Metro Waste Authority Landfill # 515-967-2076, to arrange for their acceptance of the planning area waste.
- Notify the communities, the media, and the IDNR Field Office #5 (# 515-725-0268).
- Since the location is off the landfill property, allow the IDNR and local emergency personnel to notify the responsible parties and to arrange for cleanup of the spilled materials.

F. Mass Movement of Land and Waste

1. Earthquakes – Should an earthquake be experienced at the landfill, the following actions will be taken:

- If inside immediately take cover under a heavy piece of furniture or other strong structure.
- If outside, stay in an open area and away from buildings, power lines, and trees.

- If in a machine, stop driving and wait for the earthquake to end.
- If it can be safely done, shutoff all gas valves, water valves, and main electrical panels.
- Following the earthquake, go directly to the designated Emergency Assembly location at the front gate. Check personnel and customer/visitors for injuries and if appropriate administer first aid. Notify emergency personnel if injuries are serious or life threatening.
- Do not reenter buildings if they appear to be structurally unsound.
- Check all utilities for structural damaging, including electricity, gas, water and sewage systems. If any are found damaged, shut down that system (throw the main breaker, shut the gas valve, etc.) and notify the appropriate utility for repairs.
- Monitor the radio or television for reports of aftershocks and emergency notices.
- Check the leachate system for damage and/or leakage and if required shut down the system to prevent spillage and/or contamination.
- Check the fuel storage area for damage and spillage and if necessary take containment and cleanup actions.
- Check any dirt stockpiles and site slopes for damage or slippage that might result in dangerous conditions. Take actions to repair any hazardous conditions.
- Check the scale for damage and if required arrange for repairs or an inspection.
- Once all danger has passed, prepare for large quantities of disaster debris from cleanup procedures.

2. Slope Failure – Slope failure involves the sliding or collapsing of a slope particularly one previously filled with waste. Such failures can be the result of rainstorms, earthquakes, and floods. If a slope failure occurs, the following actions will be taken:

- Staff will immediately cordon off the area determined to be dangerous.
- Contact the Operations Supervisor, Secretary/Manager, and IDNR Field Office for directions.
- Contact a professional engineer to assess the cause and appropriate corrective action.
- If appropriate, to prevent the washing downstream of any debris, construct a dirt berm or other structure.

3. Waste Shifts – Waste shifts will be handled in a similar manner to the slope failures.

4. Waste Subsidence – Waste subsidence is the uniform settlement or sinking of waste. If observed to occur over a large area, an abnormal factor is contributing to the occurrence. Such things as a sinkhole or mine collapse below the site could cause large areas of subsidence. If such occurrences happen, the following action will be taken:

- Staff will immediately cordon off the area and a large buffer area around it to avoid additional disturbance in the area and to assure lives and equipment are not placed in danger.
- Staff will notify the Secretary/Manager and the IDNR Field Office #5 (# 515-725-0268) for further directions.

- Arrangements will be made to have a professional engineer evaluate the site and determine the cause of the subsidence. The engineer will also assess the danger to the groundwater, down gradient water supplies, and the likeliness of further subsidence.
- The engineer, with IDNR's authorization, will design a procedure to correct the cause of the subsidence, remediate the current conditions, implement cleanup procedures and prevent further occurrences.
- If necessary, provide alternative drinking water sources to those downstream of the subsidence.

G. Emergency and Release Notifications and Reporting

1. Federal Agencies

- Environmental Protection Agency (EPA) Region VII – Phone # 913-551-7003
  901 N 5th
  Kansas City, KS
- Poison Control Center – Phone # 1-800-272-6477

2. State Agencies

- Iowa Dept. of Natural Resources (IDNR) – Field Office #5 - 515-725-0268
  401 SW 7th St., Suite M
  Des Moines, IA 50309
- Iowa Dept. of Natural Resources, Hazardous Conditions Reporting – Phone # 515-281-8694
- State Fire Marshall – Phone # 515-281-8625
- Iowa Dept. of Public Health – Phone # 515-281-5787
- Iowa Dept. of Transportation – Desoto shop phone # 515-834-2368

3. County and City Agencies

- Dallas County Emergency Management – Phone # 515-993-2134
- Dallas County Environmental Health Dept. – Phone # 515-993-5803
- Hospitals -
  Iowa Methodist in Des Moines – # 515-241-6423
  Iowa Lutheran in Des Moines - # 515-263-5120
  Mercy Medical Center in Des Moines - # 515-247-3105
  Broadlawns in Des Moines - # 515-282-2253

4. News Media

- WHO radio – 515-242-3558
- WHO TV – 515- 242-3500
- KCCI TV – 515-247-8844

5. Public and Private Facilities with Special Populations Within Five Miles

The landfill is on the west edge of the City of Adel (population approximately 3,400). This includes the Courthouse, City Hall, three schools, three retirement/nursing homes, three large businesses, and many smaller businesses.

6. **Emergency Response Agencies and Contact Information**
   - Dial 911 for emergency responders.
     - Give the operator your name, explicit details regarding the nature of the emergency, the address of the emergency, any injuries, and other requested information.
     - Stay on the line unless instructed to hang up or unless personal safety is jeopardized.
     - If system is down, use the direct numbers.
   - South Dallas County Sheriff's Office - # 515-993-4567
   - The Adel Police Dept. - # 515-993-4567
   - Adel Fire Dept. - # 515-993-4525
   - Ambulance - # 515-993-4507
   - HAZMAT services – # 515-993-2134

7. **Reporting Requirements and Forms**
   - IDNR requires the reporting of all hazardous conditions and spills to the local police or sheriff as soon as possible but not later than **six hours** after the occurrence or discovery of the hazardous condition. A hazardous condition is defined as "a situation involving the actual, imminent or probable spillage, leakage, or release of a hazardous substance onto the land, into the water of the state or into the atmosphere which, because of quantity, strength and toxicity of the hazardous substance, its mobility in the environment and its persistence, creates an immediate or potential danger to public health and safety or to the environment."
   - Guidelines for reporting are included in the Appendix.

H. Emergency Waste Management Procedures

1. **Communications –**
   - For life threatening situations dial 911 for emergency responders.
     - Give the operator your name, explicit details regarding the nature of the emergency, the address of the emergency, any injuries, and other requested information.
     - Stay on the line unless instructed to hang up or unless personal safety is jeopardized.
     - Directions to hospitals:
       - Most of the Des Moines hospitals – From the landfill, take Main Street east two blocks to 18th St. Turn right (south) on 18th St. for two blocks to Greene Street. Turn east (left) on Greene St. to the stoplight. Turn south on to Hwy. 169. Take Hwy. 169 approximately five miles to Interstate 80. Turn east on Interstate 80 to Des Moines. When Interstate 80 turns into 235, take 235 to downtown Des Moines. Follow the signs to the hospitals.
   - For non-life threatening conditions, contact the Manager for additional directions and who will arrange to contact the appropriate State, Federal and local authorities.
   - For contacting other employees, use the two-way radios, cell phones, intercoms or other communication technology.

2. **Temporary Discontinuation of Services**
   - Short-Term – When usage of the landfill must be discontinued for less than 24 hours, notify the following (phone numbers found in attached appendix):
     - Regular haulers
     - Cities and county agencies
     - Local media
     - IDNR Field Office
     - The alternative disposal location if necessary – Metro Waste Authority Landfill (# 515-967-2076)
   - Provide details regarding the temporary closing of the site and the schedule for resuming services.
   - Provide an alternative disposal option if necessary.
   - Long-Term – When the usage of the landfill must be discontinued for more than 24 hours, notify the following (phone numbers included in attached appendix:
     - The alternative disposal location
     - IDNR Field Office
     - Regular haulers
     - Cities and county agencies
     - Local media

3. Facilities Access and Rerouting – If the normal access to the landfill is restricted for the short term (less than 24 hrs) or for the long term (more than 24 hours), the Operations Supervisor or Secretary/Manager will notify the regular haulers and transfer stations of the alternative route or if an alternative route is not possible, the temporary closing of the landfill. Arrangements will be made to have signs posted at multiple locations, redirecting traffic to the landfill. The local authorities will be notified of the need for an alternative route.

4. Waste Acceptance – The South Dallas County Landfill will accept those wastes allowed by State and Federal law. However, some wastes that require special handling or disposal or that might impact the operator's health or the environment will require prior approval. New IDNR rules, Chapter 109 Special Waste Authorizations, require the development of a Special Waste Acceptance Criteria (SWAC). The SWAC will detail those wastes that will be accepted and any special handling requirements.

The Secretary/Manager and South Dallas County Landfill Agency Chairperson will determine and set extended or special operating hours if necessary to assist in the emergency disposal of wastes due to a disaster, storm event, or other incident. The Secretary/Manager will be responsible for monitoring and reporting any unusual hours or activities to the IDNR, the haulers, and the media as appropriate.

5. Wastes in Process – Those wastes received at the landfill will be compacted in the working face and covered with the required daily cover per the site's permit. If the site will be closed for more than seven days, intermediate cover of one foot will be applied.

I. Primary Emergency Equipment Inventory

1. Major Equipment

- One track-dozer
- One track-loader
- One landfill compactor
- An eyewash station and a first aid kit are located in the office.
- Fire extinguishers as shown on the building plan sheets
- Each machine has a fire extinguisher on-board
- Absorbents for spill containment and cleanup are located in the office/shop

2. Fire Hydrant and Water Sources

- Water is available from an on-site well.
- The leachate hauling tank/truck can be used to transport water to a fire.
- Hydrants are noted on the building plan sheets.

3. Communication Equipment - The South Dallas County Landfill uses portable two-way radios to communicate on-site with the staff. The base unit is located in the office building.

4. Off-Site Equipment Resources

- Ziegler in Des Moines can provide backup equipment within a short notice - 800-342-7002
- Murphy Tractor- 855-246-9124

J. Emergency Aid

1. Responder Contacts -As indicated earlier, 911 should be the number used to contact emergency assistance. If the system is down, the names and phone numbers are listed in the Appendix.

2. Medical Services

- Iowa Methodist in Des Moines - # 515-241-6423
- Iowa Lutheran in Des Moines - # 515-263-5120
- Mercy Medical Center in Des Moines - # 515-247-3105
- Broadlawns in Des Moines - # 515-282-2253

3. Contracts and Agreements

- Arrangements have been made with the Adel Fire Dept. to respond to fires # 515-993-4525

K. ERRAP Training Requirements

1. Training Providers – The Secretary/Manager of the South Dallas County Landfill will provide ERRAP training or other individual as designated by the Chair of the Agency.

2. Employee Orientation – Training will be provided to new employees within 48 hrs. of starting with the South Dallas County Landfill.

3. Annual Training Updates – All employees will receive their initial training upon approval of this document by IDNR. Annually, review and updated training will be provided to all employees.

4. Training Completion and Record Keeping – The Secretary/Manager will be responsible for assuring that all employees receive ERRAP training initially and annual review/update training annually. The Secretary/Manager will document the dates of all training, require all employees to sign in for the training class to document their attendance, and keep all documentation for at least seven years.

L. Reference Tables, Figures, and Maps – See attached Appendix

- Phone List
- Landfill location map
- Office and shop, and equipment storage building layout maps
- Area map showing roads and evacuation routes and alternative access routes
- Emergency Checklist
- Temporary Landfill Closure Procedures: Summary

APPENDIX

I. PHONE LIST

Emergency Numbers

- Iowa Methodist in Des Moines-# 515-241-6423
- Iowa Lutheran in Des Moines - # 515-263-5120
- Mercy Medical Center in Des Moines - # 515-247-3105
- Broadlawns in Des Moines - # 515-282-2253
- Adel Fire Dept. - # 515-993-4525
- Adel Police Dept. - # 515-993-4567
- Ambulance - # 515-993-4507
- HAZMAT services - # 515-993-2134

Governmental Entities

- Dallas County Emergency Management - Phone # 515-993-2134
- Dallas County Environmental Health Dept. - Phone # 515-993-5803
- South Dallas County Courthouse - 515-993-5806
- Adel City Hall - 515-993-4525

Major Haulers

- Waste Management - 515-265-5267
- Ankeny Sanitation- 515-964-5229

News Media

- WHO radio - 515-242-3558
- WHO TV - 515- 242-3500
- KCCI TV - 515-247-8844

Landfill Insurance Company

- Iowa Community Assurance Pool- 515-276-7557
- Agent – River Valley Insurance/Tim Bright- 515-993-3515

II. SITE MAPS AND BUILDING MAPS -

- Landfill site map
- Office/shop and equipment storage building layout maps
- Area map showing roads and evacuation routes and alternative access routes

III. SUMMARIZED PROCEDURES

- Emergency Checklist
- Temporary Landfill Closure Procedures: Summary

TEMPORARY LANDFILL CLOSURE PROCEDURES: SUMMARY

Temporary Landfill Closure Conditions:

- Short-term – An unscheduled closing of 48 hours or less
- Long-term – An unscheduled closing greater than 48 hours

Short-Term Temporary Closure Procedures – Haulers and customers are expected to retain their refuse.

- Determine as accurately as possible when the site will reopen.
- Prepare a short statement summarizing why the site will be closed.
- Post a sign at the entrance gate stating that the site is closed and providing the date and time for reopening. Include a phone number for contacting an authorized representative.
- Notify the following and provide details regarding the temporary closing and schedule for resuming services. A list of names and phone numbers are included in the ERRAP Appendix.
  - -IDNR Field Office
  - -Regular haulers
  - -Cities and county agencies
  - -Local media if appropriate

Long-Term Temporary Closure Procedures – Haulers and customers will be notified and have authorization to use the alternative landfill.

- Determine as accurately as possible when the site will reopen
- Prepare a short statement summarizing why the site will be closed
- Notify the alternative landfill.
- Post a sign at the entrance gate stating that the site is closed and providing the date and time for reopening. Indicate the name and address of the authorized alternative landfill. Include a phone number for contacting an authorized representative.
- Notify the following and provide details regarding the temporary closing and the address, phone number, and hours of operation for the alternative landfill. Provide a schedule for resuming services. A list of names and phone numbers are included in the ERRAP Appendix
  - -IDNR Field Office
  - -Regular haulers
  - -Cities and county agencies
  - -Local media if appropriate

EMERGENCY CHECKLIST

1. Does the situation require evacuation?

2. Are all personnel and customers/visitors accounted for?

3. Are there any injuries?
   Has first aid been administered? **Do not move seriously injured individuals.**
   If necessary call 911 for an ambulance

4. Are there conditions that require emergency assistance?

5. Site review
   - Are buildings safe and secured?
   - Is there any danger of fire?
   - Is the fuel storage area secure?
   - Are any actions required to minimize a spill, fire or release of regulated or hazardous materials?

6. Are there dangerous areas?

7. Are the utilities safe and operational?
   - Electricity
   - Propane gas
   - Phone
   - Water

8. Should a utility be notified for repairs?

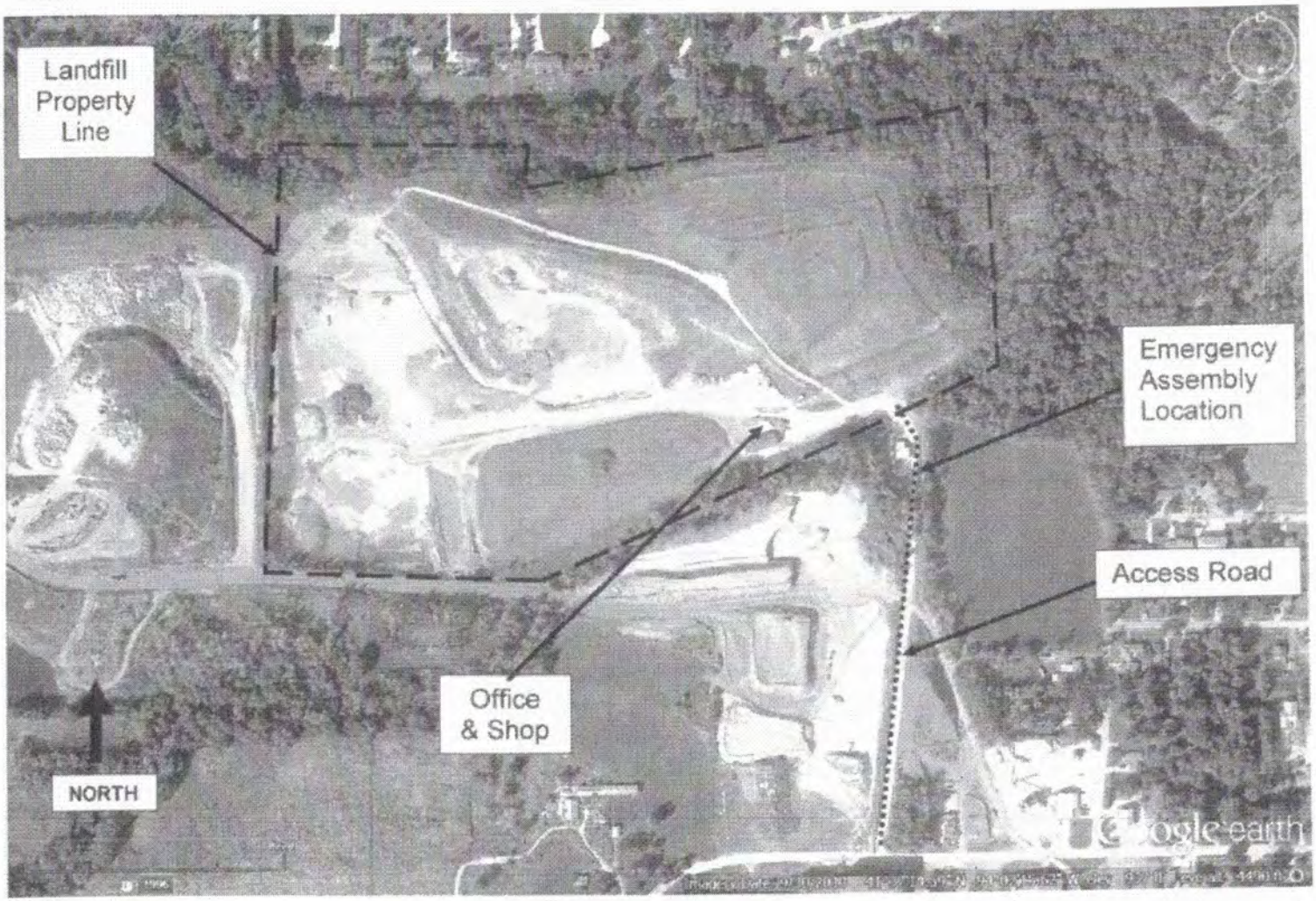
9. Has the Director or responsible official been notified?

10. Is the landfill secure?
    - Are the slopes stable?
    - Is the leachate system in-tack and operational?
    - Is the methane gas system in-tack and operational?
    - Is there excessive erosion?
    - Is there exposed waste?
    - Are the access roads in good condition?

11. Have photos been taken for documentation?

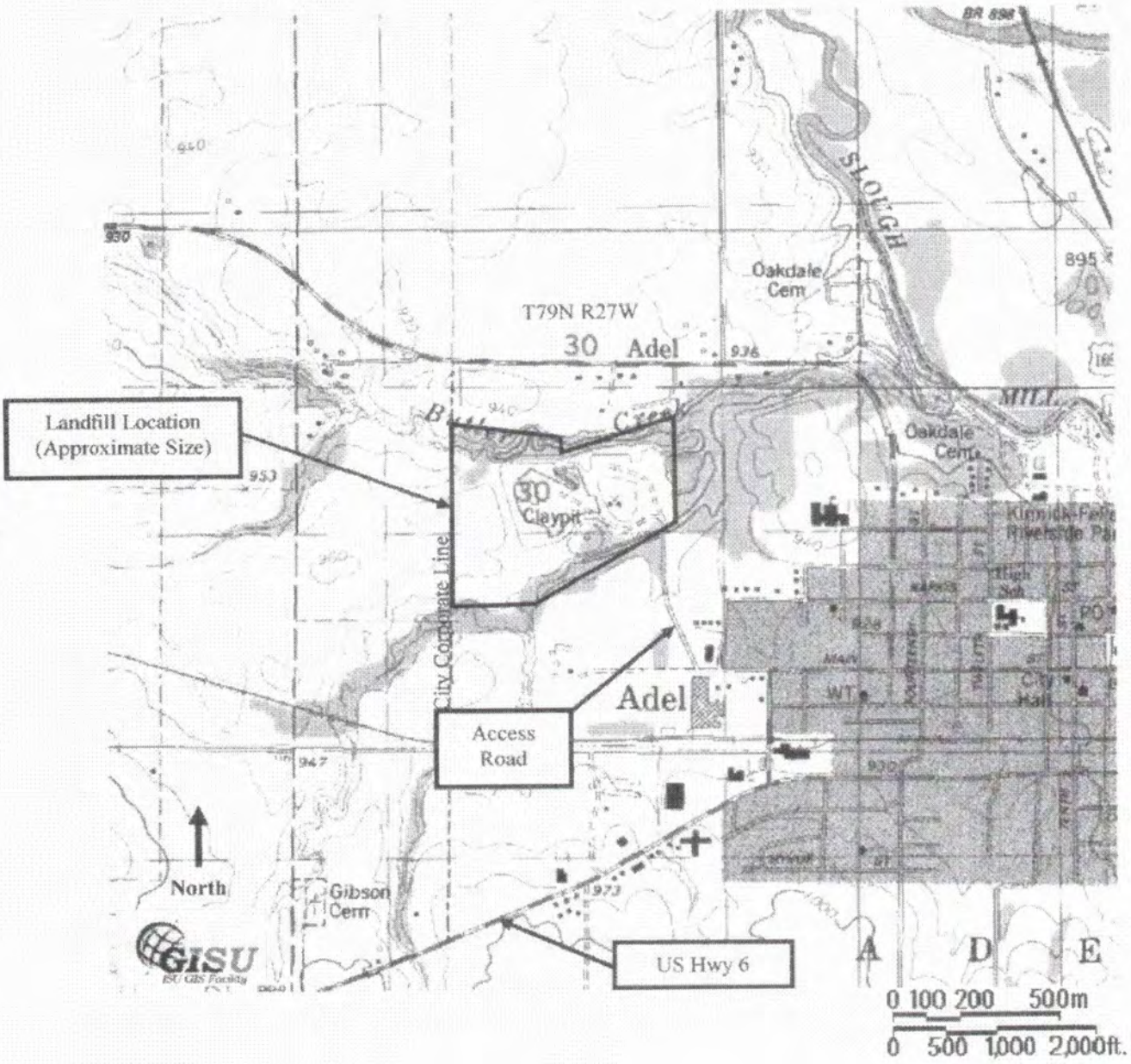
12. Has the insurance company been notified?

South Dallas County Landfill



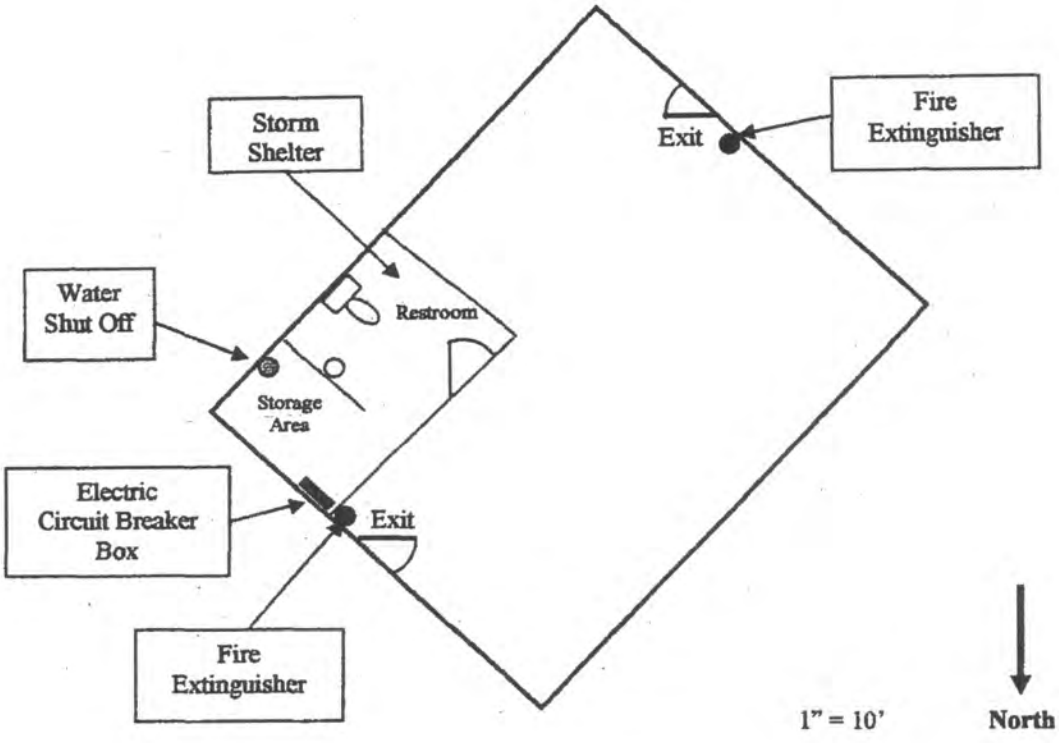
February, 2015

South Dallas County Landfill



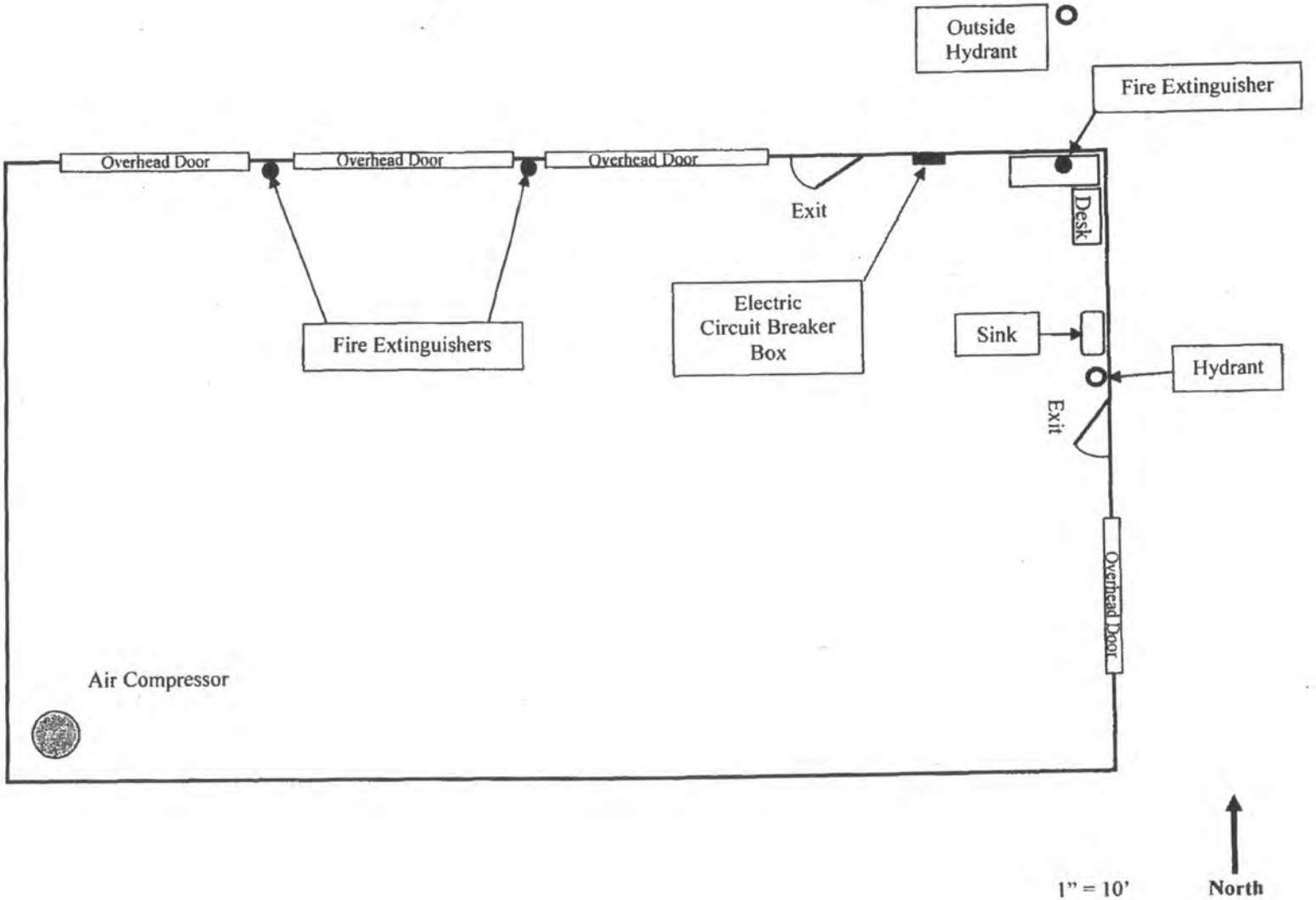
February, 2015

South Dallas County Landfill
Office



South Dallas County Landfill

New Shop and Machine Shed



IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
FIELD SERVICES & COMPLIANCE BUREAU

Iowa Administrative Code Chapter 131
Notification of Hazardous Conditions

24 hour number for release reporting
515/725-8694

Summary of Key Points and Definitions

Definitions

"Hazardous Condition" means any situation involving the actual, imminent or probable spillage, leakage, or release of a hazardous substance onto the land, into a water of the state or into the atmosphere which, because of quantity, strength and toxicity of the hazardous substance, its mobility in the environment and its persistence, creates an immediate or potential danger to the public health or safety or to the environment.

"Hazardous Substance" means any substance or mixture of substance that presents a danger to the public health or safety and includes, but is not limited to, a substance that is toxic, corrosive, or flammable, or that is an irritant or that, in confinement, generates pressure through decomposition, heat, or other means. The following are examples of substances which, in sufficient quantity, may be hazardous: acids; alkalis; explosives; fertilizers; heavy metals such as chromium, arsenic, mercury, lead, and cadmium; industrial chemicals; paint thinners; paints; pesticides; petroleum products; poisons; radioactive materials; sludges; and organic solvents. "Hazardous substances" may include any hazardous waste identified or listed by the administrator of the United States Environmental Protection Agency under the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976, or any toxic pollutant listed under Section 307 of the federal Water Pollution Control Act as amended to January 1, 1977, or any hazardous substance designated under Section 311 of the federal Water Pollution Control Act as amended to January 1, 1977, or any hazardous material designated by the secretary of transportation under the Hazardous Materials Transportation Act (49 CFR 172.101)

Key Points

Who is Required to Report Hazardous Conditions. Any person manufacturing, storing, handling, transporting, or disposing of a hazardous substance shall notify the department at (515) 725-8694 and the local police department or the office of the sheriff of the affected county of the occurrence of a hazardous condition as soon as possible but not later than six hours after the onset of the hazardous condition or the discovery of the hazardous condition. A sheriff or police chief who has been notified of a hazardous condition shall immediately notify the department. Reports made pursuant to this rule shall be confirmed in writing as provided in 131.2(2).

Reporting Subsequent Findings. All subsequent finding and laboratory results should be reported and submitted in writing to the department as soon as they become available.

Reminder ~ VERBAL REPORTS ARE REQUIRED WITHIN 6 HOURS OF INCIDENCE OCCURRENCE OR DISCOVERY.

REV. 1/2019

IOWA DNR EMERGENCY RESPONSE UNIT
502 E. 9TH STREET / DES MOINES, IOWA 50319-0034
515-725-8694 TDD 515-242-5967 www.iowadnr.gov

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
FIELD SERVICES & COMPLIANCE BUREAU

Guidelines for Reporting Hazardous Conditions
Verbal Reporting

24 hour number for release reporting
515/725-8694

Report the Condition if:

- ☐ The hazardous substance has the potential to leave the property by run-off, sewers, tile lines, culverts, drains, utility lines, or some other conduit, or,
- ☐ The hazardous substance has the potential to reach a water of the state – either surface water or groundwater or,
- ☐ The hazardous substance can be detected in the air at the boundaries of the facility property by the senses (sight and smell) or by monitoring equipment or,
- ☐ There is a potential threat to the public health and safety or,
- ☐ Local officials (Fire department, law enforcement, Hazmat, public health, and emergency management) respond to the incident or,
- ☐ The release exceeds a Federal Reportable Quantity (RQ).

~ If in Doubt, Report It ~

IDNR REQUIRES VERBAL REPORTS WITHIN 6 HOURS OF
INCIDENCE OCCURRENCE OR DISCOVERY

- It is recommended that all spills be cleaned up although a particular spill may not be reportable. A series of small spills over time can result in one big cleanup.
- Department rules stress the immediate or potential danger that a spill may cause.
- A written report of the Hazardous Condition is required within 30 days of the verbal notification.

*In general, Iowa reporting requirements are more stringent than Federal reporting requirements. However, the **time limit** for reporting at the Federal level is more immediate.*

IOWA DNR EMERGENCY RESPONSE UNIT
502 E. 9TH STREET / DES MOINES, IOWA 50319-0034
515-725-8694 TDD 515-242-5967 www.iowadnr.gov

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
FIELD SERVICES & COMPLIANCE BUREAU

Guidelines for Reporting Hazardous Conditions Written Report Requirements

24 hour number for release reporting 515/725-8694

The Iowa Department of Natural Resources
Requires a written report of any Hazardous Condition.
(VERBAL REPORT REQUIRED WITHIN 6 HOURS)

Written Report. The written report of such a hazardous condition shall be submitted to the department within 30 days and contain the following information:

a. The exact location of the hazardous condition.
b. The time and date of onset or discovery of the hazardous condition.
c. The name of the material, the manufacturer's name, and the volume of each material involved in the hazardous condition in addition to contaminants within the material if they by themselves could cause a hazardous condition.
d. The medium (land, water, or air) in which the hazardous condition occurred or exists.
e. The name, address, and telephone number of the party responsible for the hazardous condition.
f. The time and date of the verbal report to the department of the hazardous condition.
g. The weather conditions at the time of the hazardous condition onset of discovery.
h. The name, mailing address, and telephone number of the person reporting the hazardous condition.
i. The name and telephone of the person closest to the scene of the hazardous condition who can be contacted for further information and action.
j. Any other information, such as the circumstances leading to the hazardous condition, visible effects, and containment measures taken that may assist in the proper evaluation by the department.

The written report should include the IDNR Spill Number (assigned at the time of the verbal report) and be addressed to the duty officer responding to the spill. Reports can be sent via mail, fax, or electronic mail to the addresses listed below.

Mail	Fax	E-Mail
Iowa DNR Field Services Emergency Response 502 E. 9th Street Des Moines, IA 50319-0034	515/281-7229	Emergency_Response@dnr.iowa.gov

Written Report for Hazardous Conditions

The Iowa Department of Natural Resources
Requires a written report of any Hazardous Condition.

(VERBAL REPORT REQUIRED WITHIN 6 HOURS)

Written Report. The written report of a hazardous condition shall be submitted to the department within 30 days and contain the following information (Please complete as much as possible):

DNR Spill Number for hazardous condition: _____

Location of hazardous condition:

Physical Address _____ City _____

Legal Address Lat/Long or Twn/Rng _____ Zip _____

Other description _____

Time and Date of *onset or discovery* of hazardous condition:

Time _____ ☐ AM ☐ PM Date _____

Time and Date of *verbal report* to the department of the hazardous condition:

Time _____ ☐ AM ☐ PM Date _____

Hazardous Condition:

Name of material/substance(s)	Manufacturer	Volume

If more space is needed add additional pages. Attach a Material Safety Data Sheet (MSDS) if possible.

The medium in which the hazardous condition occurred/existed (Check all that apply):

☐ Ground Water ☐ Surface Water ☐ Land ☐ Air

Weather Conditions during the time of the hazardous condition onset or discovery:

Temperature	Wind Direction	Wind Speed	Humidity	Precipitation

Contact Information:

	Name	Company	Mailing Address	Telephone
Person Reporting (if known)				
Party Responsible				
Site Contact				

Cause of the Incident: Write a narrative of the events leading to the incident

Initial Actions Taken: Write a narrative of the initial actions and instructions taken or required.

Written reports should include the DNR spill number and be addressed to the duty officer responding to the spill. Reports can be sent via mail, fax, or electronic mail.

Mail	Fax	Email
DNR Emergency Response 502 E 9th St Des Moines IA 50319	515-281-7229	Emergency_Response@dnr.iowa.gov

Thank You

APPENDIX 3

SOUTH DALLAS COUNTY LANDFILL

CERTIFIED OPERATORS

Mike Fountas – 30910

Ryan Moorhead – 30926

Owen Wagner – 31121

Jared Putney – 31228

SECTION F

Environmental Monitoring Plan

ENVIRONMENTAL MONITORING PLAN

113.9 ENVIRONMENTAL MONITORING AND CORRECTIVE ACTION REQUIREMENTS FOR AIR QUALITY AND LANDFILL GAS

113.9(1) Air Criteria

The South Dallas County SLF operates under the following permit related to air quality:

- Air Quality Construction Permit (Permit 11-A-241) dated May 6, 2011

113.9(2) Landfill Gas

Gas monitoring is performed on a quarterly frequency. The gas monitoring points are approved as defined in Appendix F of the previous Permit Renewal Application (dated September 24, 2020 – Doc #98519) and approved in the Permit dated January 11, 2021 (Doc #99378). The gas monitoring points are summarized as:

Point	Description
Office	Ambient Air in Structure
Equipment Building	Ambient Air in Structure
Leachate Pump Control Building	Ambient Air in Structure
Leachate Treatment Building	Ambient Air in Structure
Old Shop	Ambient Air in Structure
GP-1	Subsurface Vadose Zone Probe
GP-2	Subsurface Vadose Zone Probe
GP-3	Subsurface Vadose Zone Probe
GP-3R	Subsurface Vadose Zone Probe
GP-4	Subsurface Vadose Zone Probe
GP-4R	Subsurface Vadose Zone Probe
GP-5	Groundwater Sump Manhole
GP-6	Subsurface Vadose Zone Probe
GP-6R	Subsurface Vadose Zone Probe
GP-7	Subsurface Vadose Zone Probe
GV-1	Vent Trench Outlet
GV-2	Vent Trench Outlet
GV-4	Vent Trench Outlet
GV-5	Vent Trench Outlet
MW-4	Monitoring Well
MW-5	Monitoring Well
MW-22	Monitoring Well
MW-25	Monitoring Well
MW-26	Monitoring Well

Special Provision X.5.b.of the current permit dated October 10, 2023 (Doc #107884) requires the gas monitoring results to be submitted by January 31 of each year. In practice, the gas monitoring results have been included in the Annual Water Quality Report (AWQR) which is required to be submitted by February 28 of each year in accordance with Special Provision X.3.h. of the current permit.

We request that the submittal deadline for the gas monitoring results share a common submittal date with the AWQR. We request that both be due by February 28 of each year and that Special Provision X.5.b. be changed to reflect the February 28 annual deadline.

113.10 ENVIRONMENTAL MONITORING AND CORRECTIVE ACTION REQUIREMENTS FOR GROUNDWATER AND SURFACE WATER

113.10(1) General Requirements for Environmental Monitoring and Corrective Action for Groundwater and Surface Water

The most recent Hydrologic Monitoring System Plan (HMSP) dated July 25, 2018 (Doc #92857) was approved by IDNR on September 28, 2018 (Doc #93374). Appendix F of the previous Permit Renewal Application (dated September 24, 2020 – Doc #98519) included detailed description of the sample collection methods, the statistical methods, and the QA/QC methods. The HMSP was approved in the Permit dated January 11, 2021 (Doc #99378).

Since approval of the HMSP on January 11, 2021 (Doc #99378), changes have been approved to the HMPS monitoring points. On April 27, 2021, a request to abandon MW-16 was submitted to the IDNR (Doc # 100339) and was approved by IDNR on June 7, 2021 (Doc #100632). MW-16 was abandoned on December 3, 2021 with Well Plugging Records submitted on December 3, 2021 (Doc #101813). The SDP Permit was revised on December 9, 2021, to reflect abandonment of MW-16 (Doc #101824)

Due to intermittent detection of volatile organic compounds (VOC) in the discharge of GWD-1, the groundwater discharge was connected to the leachate control system with Construction Certification submitted to IDNR on September 11, 2023 (Doc #107672). Approval of the modification was included in the Permit Revision dated October 10, 2023 (Doc #107884).

The monitoring points are summarized below.

113.10(2) Groundwater Monitoring Systems

Groundwater monitoring shall be as per the approved HMSP. The HMSP monitoring points are described as follows:

Well	Designation/Use	Unit Monitored
MW-2	Background	Glacial Till
MW-17	Background	Silty Sand to gravelly sand to shale
MW-19A	Background	Lean clay with trace gravel to sandy silt
MW-9	Background	Silt and Sand
MW-18	Background	Sandy lean clay, trace gravel
MW-24	Background	Sandy silty clay, trace gravel, fine sand and gravel
MW-4	Downgradient	Sand, glacial till, sand and gravel
MW-5	Downgradient	Sandy and silty clay, shale
MW-10	Downgradient	Shale
MW-12	Downgradient	Weathered and fractured shale
MW-15R	Downgradient	Very sandy silty clay with some gravel
MW-20R	Downgradient	Very sandy silty clay with trace gravel
MW-21	Downgradient	Silty, shaley clay to clayey shale
MW-22	Downgradient	Silty clay to clayey silt with sand seams
MW-25	Step-Out Well	Glacial Till
MW-26	Step-Out Well	Glacial Till

113.10(3) Surface Water Monitoring Systems

Surface water monitoring is not warranted at the site and is not included in the HMSP. Surface water is routed to the on-site sedimentation basin that outlets to Butler Creek to the north. An NPDES storm water sampling event is performed annually. NPDES General Permit #1 (#5847-5662) expires March 10, 2028.

113.10(4) Groundwater Sampling and Analysis Requirements

Groundwater analysis will be for Appendix I/Appendix II compounds as defined in IAC 567, Chapter 113.10(5)"a" and 113.10(6)"b". Step-out wells MW-25 and MW-26 will be analyzed for vinyl chloride, arsenic (total), and barium (total).

Statistical Analysis is performed using the DUMPSTAT statistical program. Interwell and Intrawell statistical methods are included in the previously approved HMSP.

113.10(5) Detection Monitoring Program

Background wells MW-2, MW-17, MW-19A, MW-9, MW-18, and MW-24 along with downgradient wells MW-10, MW-12, MW-15R, and MW-20R are the monitoring points on site that are in detection monitoring (sampled for Appendix I). MW-25 and MW-26 are designated as attenuation zone point of compliance (AZPOC) wells, included in the detection monitoring system.

113.10(6) Assessment Monitoring Program

Monitoring wells MW-4, MW-5, MW-21, and MW-22 are included in the assessment monitoring program based predominantly on historic volatile organic compound (VOC)

detections. MW-25 and MW-26 are monitored for vinyl chloride, arsenic, and barium to provide supporting data on the performance of the historic natural attenuation remedy employed at the site.

113.10(7) Assessment of Corrective Measures

Assessment of Corrective Measures (ACM) is not warranted at this time based on current water quality trends. An ACM, if warranted, would follow in accordance with 113.10(7).

113.10(8) Selection of Remedy

Not required at this time.

113.10(9) Implementation of the Corrective Action Plan

Not required at this time.

113.10(10) Annual Water Quality Reports

Annual Water Quality Reports (AWQR) will be submitted by February 28 of each year. A Semi-Annual Water Quality Notification will be filed by July 31 of each year in accordance with the unnumbered Permit Amendment dated May 22, 2013 (Doc #77133).

SECTION G

Project Goals and Timelines for RD&D Permits

RESEARCH, DEVELOPMENT AND DEMONSTRATION PERMITS

The South Dallas County SLF currently has no EPA RD&D Permits.

SECTION H

Proof of Financial Assurance

IOWA DEPARTMENT OF NATURAL RESOURCES

GOVERNOR, KIM REYNOLDS
LT. GOVERNOR, CHRIS COURNOYER
DIRECTOR, KAYLA LYON

March 18, 2025

MIKE FOUNTAS
DIRECTOR
SOUTH DALLAS COUNTY LANDFILL AGENCY
PO BOX 263
ADEL IA 50003

Re: South Dallas County Sanitary Landfill
Permit Number 25-SDP-01-75P
Approval of Financial Assurance

Dear Mr. Fountas:

This is notification by the Iowa Department of Natural Resources (DNR) that the South Dallas County Landfill Agency (Agency) has adequately complied with the financial assurance requirements of 567 IAC 113.14(455B) for the South Dallas County Sanitary Landfill ("closed" NE & SW Areas & open Subtitle D Expansions). The Agency's financial assurance documentation (Doc #111488), received December 16, 2024, has been placed in the DNR's record files.

The projected deposit of **$166,280** (NE & SW Areas PC = $22,500; Subtitle D Expansions C = $121,280, PC = $22,500) to the Agency's closure and postclosure account(s) needs to be made by July 30, 2025. Those deposit amounts are as stated in the "Formula for Projected Deposits" component of Section 7 of the Agency's Financial Assurance Report Forms.

Please note that the Agency may withdraw money from the closure and postclosure account(s) without DNR approval for the purpose of funding closure, including partial closure, or postclosure activities in accordance with 567 IAC 113.14(8)"d." As a reminder, compliance with 567 IAC 113.14(455B) is to be submitted annually, by April 1st, confirming that all applicable financial assurance documents are updated as required.

Please feel free to contact me with any questions. I can be reached at (515) 802-8835 or mary.klemesrud@dnr.iowa.gov.

Sincerely,

Mary Klemesrud
Program Planner
Land Quality Bureau

Cc: Iowa DNR Field Office #5, Des Moines

SECTION I

Closure and Postclosure Plan

CLOSURE AND POSTCLOSURE PLAN

A Closure and Postclosure Plan (CPCP) was included in the 2020 Permit Renewal Documentation (Doc # 98519). The 2020 Permit Renewal Documentation was approved in the SDP Permit renewal dated January 11, 2021 (Doc #99387). The approved CPCP is still applicable except as noted below:

113.12 CLOSURE CRITERIA

113.12(1) Final Cover System

The active disposal areas in the Subtitle D compliant horizontal expansion area have been constructed with alternative liners meeting EPA Subtitle D requirements (Phase 1 and Phase 2) and composite liners meeting EPA Subtitle D requirements (Phases 3, Phase 4, and Phase 5). The closure of the Subtitle D alternative lined cells is detailed in the discussion under 113.12(2).

SECTION J

Comprehensive Plan Approval

IOWA DNR
IOWA DEPARTMENT OF NATURAL RESOURCES

GOVERNOR KIM REYNOLDS
LT. GOVERNOR ADAM GREGG
DIRECTOR KAYLA LYON

South Dallas County Landfill AgencyService Area
within the Metro Waste Authority Planning Area
9th Round Solid Waste Comprehensive Plan Update
NOTICE OF APPROVAL

The above-referenced agency submitted their plan update regarding integrated solid waste programs and activities. Information was included regarding proposed activities that represent an action plan for the next five years.

The official Goal Progress determination for the Metro Waste Authority planning area is 21.73% for Fiscal Year 2023. This figure was determined using the Base-Year Adjustment Method. Goal Progress may be recalculated annually, once new data is available and upon request by the planning area.

The tonnage fees for the South Dallas County Landfill Agency will change due to the drop in the diversion rate to less than 25%. The new fee structure, as outlined in the Tonnage Fee DistributionFact Sheet, will begin on October 1, 2024. Questions regarding tonnage fee submission may be directed to Becky Jolly at 515-249-1482 or becky.jolly@dnr.iowa.gov.

The DNR's Financial and Business Assistance (FABA) Section has resources available to assist communities, businesses, and solid waste planning areas with programs. Waste reduction, pollution prevention and financial assistance are all areas of emphasis. In addition, the voluntary Environmental Management System (EMS) program provides benefits for efforts beyond waste reduction.

Should you have any questions or concerns, please do not hesitate to contact me at Laurie.Rasmus@dnr.iowa.gov or 515-474-4921.

Sincerely,

Laurie Rasmus
Land Quality Bureau, Financial and Business Assistance

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2 attachments

Rnd9 Update_SDCSLF_pkg.pdf
18080K

cklst_S Dallas_Final 9-20-2024.pdf
725K

Iowa Solid Waste Comprehensive Planning Plan Update Review Form

Planning Area Name: **South Dallas County Landfill Service Area within the Metro Waste Authority Planning Area**

Instructions/Notes
Service area (SA) is to respond to items noted in red. A response is optional for other noted items. SA responded on this form in gray, which was attached to an email on 9/17/2024.

Section 1: Electronic Submission Certification ☑

Section 2: Contacts Please provide a direct email address and phone number for the primary contact who is the Chair. Is the email address at the top of Page 53 correct? Ms. McAdon would prefer to use her official City of Adel email address (smcadon@adeliowa.org) and the SDCLA office phone number of 515-993-3148.

Section 3: Member Participation
3.1 Planning Area Description ☑
The planning area description PDF linked from the DNR Comprehensive Planning webpage lists the planning area description as in the box below:

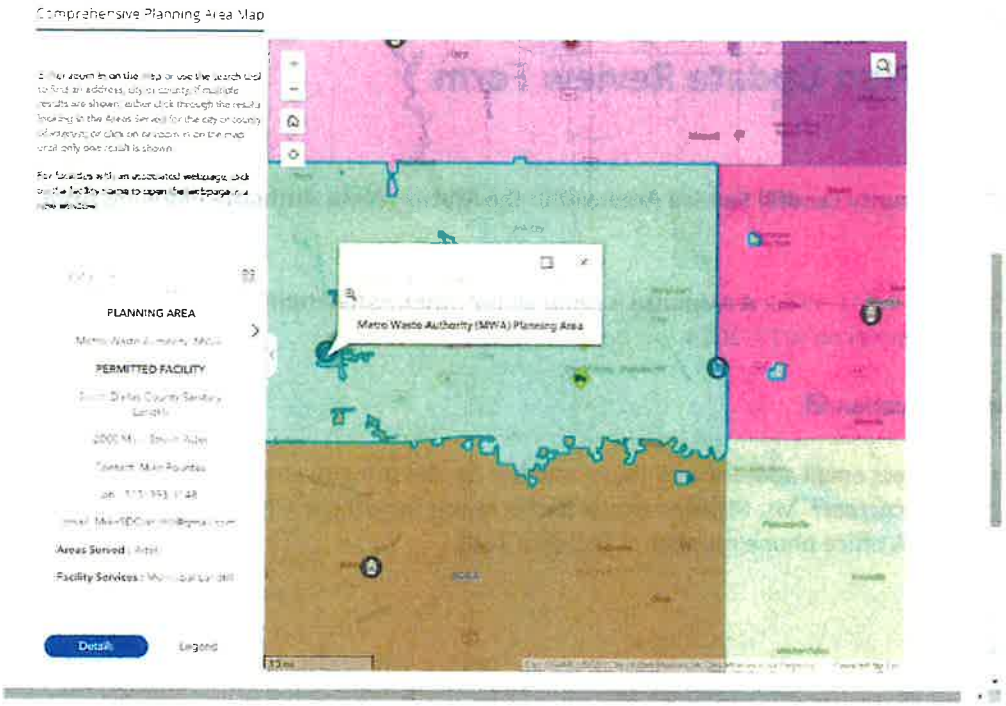
> **Metro Waste Authority (MWA)**
> All cities and the unincorporated area in Polk County; the cities of Carlisle, Hartford, and Norwalk in Warren County; the cities of Mingo and Prairie City in Jasper County; the city of Jefferson in Greene County and the cities of Adel, Dawson, Linden, Minburn, Perry, Redfield, and Waukee and the unincorporated area in Dallas County. (Last Updated: 6/11/2014)

The Plan Update completed Section 3.1 as in the box below:

> **3.1 Planning Area Description**
> Refer to **planning area descriptions** Do you agree with the description? ☐ Yes ☒ No, explain below
> There is no official South Dallas County Landfill Agency (SDCLA) planning area. SDCL ia a permitted facility service area that is part of the Metro Waste Authority (MWA) planning area. MWA is a designated Environmental Management System (EMS) and is exempt from submittal of a Comprehensive Plan Update. This plan update will report only on SDCL and it's service area. The SDCL service area includes the City of Adel and by agreement with MWA, small loads from Dallas and Polk Counties, and the City of Waukee. Anyone looking for the SDCL planning area on DNR comprehensive planning websites will not find it.

DNR does not recognize SDCLA as a planning area but as a service area within the MWA planning area. Since the City of Adel is the only member of the SDCLA service area and the City of Adel is within the MWA planning area, it seems that there is agreement of the planning area description for MWA as published on the DNR website and the "Yes" box should be checked. SDCLA is identified as an entity within the MWA on DNR's planning area contacts report and also on the GIS map at the bottom of the DNR Comprehensive Planning webpage (as shown below). Please respond with any discussion.

The SDCLA concurs with IDNR's description of the SDCLA as a service area within the MWA planning area and therefore agrees to check the yes box in Section 3.1.



3.2 28E Agreements/Resolutions ☑ Section 3.2 states that City of Adel is the only member of the service area. Attachment A of the Comp Plan Update has a copy of the 1970 agreement creating the SDCLA. It is recommended that this be recorded with the Secretary of State in accordance with Chapter 28E.

The Comp Plan Update did not list the SDCLA Closure/Post-Closure Settlement Agreement and Release that is filed with the Secretary of State as L006491. However, the Plan Update stated, "The towns of Desoto, Earlham, Redfield, and Van Meter no longer are a part of the 28E Agreement of the South Dallas County Landfill Agency, leaving the City of Adel as the only Member."

No resolutions were included in the Plan Update. Please provide a resolution from either the SCLCA or the City of Adel, indicating their approval of/participation in the Plan Update. Although not required, please consider obtaining a resolution from MWA to show cooperation between the service area and planning area. A copy of the Resolution is included as an attachment to the email.

3.3 Members ☑ The Plan Update stated, "The towns of Desoto, Earlham, Redfield, and Van Meter no longer are a part of the 28E Agreement of the South Dallas County Landfill Agency, leaving the City of Adel as the only Member."

Section 4: Solid Waste Disposal Projects and Contractors

4.1 Solid Waste Projects ☑

4.2 Significant Changes in Disposal Operations or Facilities ☑ Plan Update exclusively noted, "Phase 5 horizontal expansion likely to be developed prior to 2030."

4.3 Cooperation from Private Solid Waste Sanitary Disposal Projects ☑

4.4 Cooperation from Haulers ☑

Section 5: Public Participation

5.1 Ongoing Strategies for Public Input ☑

5.2 Public Meetings to Develop Plan ☑

Meetings were held and promoted as required. Neither attendees from MWA nor from the public were in attendance, only SDCLA staff, the agency chairman and/or consultant were in attendance.

Section 6: Changes in Waste Generation & Composition and Goal Progress Factors

6.1a Waste Generation ☑
The MWA PA's last approved goal progress rate in FY2019 was 26.45%. The newly calculated rate using FY2023 data is 21.73%. In FY2023, the tonnage from the South Dallas County Landfill is approximately 3% of the PA's total tonnage. Tonnage from South Dallas County Landfill decreased significantly from 40,158 tons in FY2019 to 22,382 tons in FY2023. Waste reduction in the service area has been significant but is not reflected in the PA goal progress.
6.1b Changes in Waste Composition and Generation ☑
6.2 Changes over Past ☑ Plan Update noted that new construction has slowed but C&D will remain largest percentage of waste. Data and charts included showing correlation waste generation with building permits.
6.3 Projected Changes ☑

Section 7: Integrated Solid Waste Management
7.1 Waste Management Programs ☑
Summarization of programs in Attachment E of Plan Update, including education, excavation from unlined landfill areas and single-stream program.
Website is user-friendly and informative – great resource for residents.
7.2 Changes in Efforts & Programs ☑
7.3 Provision of Separation of Paper, Plastic, Metal & Glass ☑
7.4 Recycling Services (Optional)
7.5 Reduction or Loss of Programs (Optional)

Section 8: Evaluation of Progress ☑
Attachment F of the Plan Update provides tables and visuals, indicating a trend analysis of goal progress for the planning area – meeting the requirements for this section. The Plan Update also noted that an analysis of the effectiveness or benefit of existing programs was also provided in Attachment F but such information was not able to be found. However, Attachment E included a one word description of anticipated impact and waste diversion for each of the programs that were described.
The previous Round 8 Plan Update had identified 7 activities to consider implementing by the time this Round 9 Update was due. The current Round 9 Plan Update addressed a number of these activities, indicating the SA beneficially utilized the prior Round 8 Plan to make progress during the planning cycle.
Section 9: Plan Implementation ☑
Narrative explains that plan for the next 5-6 years is to maintain current programs by actively promoting waste diversion through ongoing public awareness activities.

Section 10: Fees for Comprehensive Planning
10.1 Plan Implementation ☑
10.2 Environmental Protection & Planning ☑

For DNR use only _____

Review by DNR
Round 9 Initial Review Date: Sept. 3, 2024 Reviewer: Laurie Rasmus

Round 9 Approval Date:
Round 9 Initial Review Date: Sept. 20, 2024 Reviewer: Laurie Rasmus

IOWA

Rasmus, Laurie <laurie.rasmus@dnr.iowa.gov>

Rnd 9 Comprehensive Plan Exemption_EMS_MWA

1 message

Rasmus, Laurie <laurie.rasmus@dnr.iowa.gov> Mon, May 6, 2024 at 1:15 PM
To: Kyle Fischer <kfi@mwatoday.com>
Cc: "Jolly, Becky" <becky.jolly@dnr.iowa.gov>, Jennifer Wright <jennifer.wright@dnr.iowa.gov>, Geoffrey Spain <geoffrey.spain@dnr.iowa.gov>, Chad Stobbe <chad.stobbe@dnr.iowa.gov>, Mike Smith <mike.smith@dnr.iowa.gov>, Ted Petersen <ted.petersen@dnr.iowa.gov>, Shelene Codner <shelly@netins.net>

IOWA DNR
IOWA DEPARTMENT OF NATURAL RESOURCES

GOVERNOR KIM REYNOLDS
LT. GOVERNOR ADAM GREGG
DIRECTOR KAYLA LYON

Metro Waste Authority (MWA)
excluding the South Dallas Landfill Commission Service Area
9th Round Solid Waste Comprehensive Plan

Dear Mr. Kyle Fischer:

The above-referenced planning area is designated as a participant in the Iowa Solid Waste Environmental Management System (EMS) program and is exempt from filing its comprehensive plan update, pursuant to 455J.5(2). EMS as a voluntary alternative to Iowa's Solid Waste Comprehensive Planning, allows participants to set local goals for responsible environmental management while promoting environmental stewardship and continuous improvement.

EMS program participants are exempt from solid waste reduction goals pursuant to 455J.5(1)a. As a planning tool, the planning area's waste diversion percentage was calculated for FY023 using the Base-Year Adjustment Method, resulting in a rate of 21.73%. Requests for recalculations may be made annually. Per Iowa Code 455J.5(1)b, EMS program participants qualify for a reduced tonnage fee of $3.65 per ton of which 2.10 is to be remitted to the Department. Questions regarding tonnage fees may be directed to Becky Jolly at (515) 249-1482.

Should you have any questions about EMS, goal progress, or this letter please contact me at (515) 474-4921 or Laurie.Rasmus@dnr.iowa.gov.

Sincerely,

Laurie Rasmus
Land Quality Bureau, Financial and Business Assistance

2 attachments

GP_MWA_FY2023.pdf
191K

Tonnage Fee Distribution_Fact Sheet(3)_rev June 2020.pdf
433K

BASE-YEAR ADJUSTMENT METHOD REPORT TABLE

NAME OF AREA: Metro Waste Authority

CURRENT YEAR (CY): FY2023 for Round 9_completed 5-3-2024
BASE YEAR: FY 1988 and FY 1994

FACTORS	FY 1988	N Dallas FY 1994	Combined	
STEP 1: Basic Information				
1 Base Year Residential Waste Disposal	116,998.47	9,553.98	126,552	(A)
2 Base Year Commercial/Industrial Waste Disposal	547,022.46	8,138.58	555,161	(B)
3 Base Year Total Waste Disposal	664,020.93	17,692.56	681,713	
4 CY Waste Disposal			791,934.75	(G)
5 Base Year Population	337,586	26,232	363,818	(C)
6 CY Population			625,231	(H)
7 Base Year Employment	213,370.03	15,261.00	228,631	(D)
8 CY Employment			332,493	(I)
9 Base Year Taxable Sales	$3,384,430,982	$125,008,182	$3,509,439,164	(E)
10 CY Taxable Sales			$13,187,720,879	(J)
11 Base Year Consumer Price Index	115.8417	146.2167	116.92	(F) Weighted av by E
12 CY Consumer Price Index			299.6853	(K)
STEP 2: CY Taxable Sales Corrected for Inflation				
13 Inflation Correction Factor			0.3901549	F/K
14 CY Corrected Taxable Sales			$5,145,254,172	J*(F/K)
STEP 3: Base Year and Current Year Ratios				
15 Population Ratio (PR)			1.7185268	H/C
16 Employment Ratio (ER)			1.4542794	I/D
17 Taxable Sales Ratio (TR)			1.4661186	(J*F/K)/E
STEP 4: Adjustment Factors				
18 Base Year Commercial/Industrial Adjustment Factor			1.4601990	Av. Lines 16 & 17
19 Base Year Residential Adjustment Factor			1.5893629	Av. Lines 15 & 18
STEP 5: Adjusted Base Year Disposal Tonnages				
20 Base Year Adjusted Residential Waste Disposal			201,138	A * Line 19
21 Base Year Adjusted Commercial/Industrial Waste Disposal			810,646	B * Line 18
22 Base Year Adjusted Total Waste Disposal			1,011,783	Line 20 + Line 21
STEP 6: Goal Progress and Reduction Percentage Results				
23 CY Waste Disposal (from line #4)			791,935	G
24 Maximum Allowable Disposal to Attain 25 Percent Goal			758,838	Line 22 * 0.75
25 Actual Tonnage Over (or Under) 25 Percent Goal			33,097	Line 23 minus Line 24
26 Maximum Allowable Disposal to Attain 50 Percent Goal			505,892	Line 22 * 0.5
27 Actual Tonnage Over (or Under) 50 Percent Goal			286,043	Line 23 minus Line 26
28 CURRENT DISPOSAL REDUCTION (PERCENTAGE)			**21.73%**	**(Line 22 minus Line 23) / Line 22**

Planning Area (PA)	County	City	2022 Pop.	PA Pop. (H)	Pop. % in PA	FY2023 Non-farm Jobs in	Non-Farm Jobs in PA (I)	2023 Taxable Sales
MWA	Dallas	Adel	6,453	6,453				$ 68,753,428
CISWMA	Dallas	Bouton	127					
SCILA	Dallas	Dallas	1,955					
MWA	Dallas	Dawson	112	112				
SCILA	Dallas	De Soto	935					
SCILA	Dallas	Dexter	635					
CISWMA	Dallas	Granger	1,951					
MWA	Dallas	Linden	201	201				$ 328,426
MWA	Dallas	Minburn	321	321				$ 2,261,460
MWA	Dallas	Perry	8,008	8,008				$ 112,397,724
MWA	Dallas	Redfield	730	730				$ 7,259,761
SCILA	Dallas	Van	1,556					
MWA	Dallas	Waukee	29,167	29,167				$ 452,798,014
CISWMA	Dallas	Woodwar	1,365					
MWA	Dallas	zz.Uninc ar	54,500	54,500				$ 13,085,577
			108,016	**99,492**	**92.11%**	**57,643**	**53,094**	**$ 656,884,389**
CISWMA	Greene	Churdan	363					
CISWMA	Greene	Dana	35					
CISWMA	Greene	Grand	719					
MWA	Greene	Jefferson	4,173	4,173				$ 62,974,844
CISWMA	Greene	Paton	221					
CISWMA	Greene	Rippey	217					
CISWMA	Greene	Scranton	504					
CISWMA	Greene	zz.Uninc ar	2,509					
			8,741	**4,173**	**47.74%**	**3,348**	**1,598**	**$ 62,974,844**
Newton	Jasper	Baxter	974					
Newton	Jasper	Colfax	2,253					
Newton	Jasper	Kellogg	597					
Newton	Jasper		171					
Newton	Jasper	Lynnville	381					
MWA	Jasper	Mingo	306	306				$ 942,202
Newton	Jasper	Monroe	2,011					
Newton	Jasper	Newton	15,688					
Newton	Jasper	Oakland	177					
MWA	Jasper	Prairie	1,711	1,711				$ 11,823,810
Newton	Jasper	Reasnor	154					
Newton	Jasper	Sully	887					
Newton	Jasper	Valeria	39					
Newton	Jasper	zz.Uninc ar	12,589					
			37,938	**2,017**	**5.32%**	**10,245**	**545**	**$ 12,766,012**
MWA	Polk	Alleman	433	433				$ 142,107
MWA	Polk	Altoona	21,503	21,503				$ 701,829,961
MWA	Polk	Ankeny	72,222	72,222				$ 1,391,586,473
MWA	Polk	Bonduran	8,710	8,710				$ 53,442,202
MWA	Polk	Clive	18,908	18,908				$ 618,363,434
MWA	Polk	Des	211,034	211,034				$ 5,102,406,126
MWA	Polk	Elkhart	993	993				$ 7,810,928
MWA	Polk	Grimes	16,295	16,295				$ 544,810,542

MWA	Polk	Johnston	24,390	24,390				$ 246,997,383
MWA	Polk	Mitchellvil	2,493	2,493				$ 9,794,399
MWA	Polk	Pleasant	11,186	11,186				$ 104,972,392
MWA	Polk	Polk City	6,046	6,046				$ 28,816,771
MWA	Polk	Runnells	448	448				$ 9,368,952
MWA	Polk	Sheldahl	301	301				
MWA	Polk	Urbandal	46,648	46,648				$ 1,149,513,327
MWA	Polk	West Des	70,741	70,741				$ 2,225,346,493
MWA	Polk	Windsor	5,109	5,109				$ 117,358,462
MWA	Polk	zz.Uninc ar	(16,371)	(16,371)				$ 27,600,752
			501,089	**501,089**	**100.00%**	**267,406**	**267,406**	**$ 12,340,160,705**
SCILA	Warren	Ackworth	118					
MWA	Warren	Carlisle	4,283	4,283				
SCILA	Warren	Cumming	487					
MWA	Warren	Hartford	726					$ 3,681,244
SCILA	Warren	Indianola	16,069					
SCILA	Warren	Lacona	336					
SCILA	Warren	Martensd	413					
SCILA	Warren	Milo	764					
SCILA	Warren	New	493					
MWA	Warren	Norwalk	14,177	14,177				$ 111,253,686
SCILA	Warren	Sandyville	59					
SCILA	Warren	Spring Hill	68					
SCILA	Warren	St. Marys	104					
SCILA	Warren	zz.Uninc ar	16,230					
			54,327	**18,460**	**33.98%**	**28,992**	**9,851**	**$ 114,934,930**

				Population			Jobs	Sales
				(H)			(I)	(J)
MWA	**ALL**			**625,231**			**332,493**	**$ 13,187,720,879**

PA	Permit #	Facility	Tons, Non Exempt	Released (non HF399) ton another IA PA (+)	From another IA PA (non HF 399) (-)	Generated Out of Iowa (-)	Diposed out of Iowa (+)	Exceptional Event (-)	FY2023 PA Tons (G)
	25-SDP-01-75	MPE	763,849						763,849
	08-SDP-03-84	MPW	35,540						35,540
	25-SDP-01-75	S Dallas	22,382						22,382
MWA	All				29,836				(29,836)
									791,935

CPI FY2023	299.685