

February 8, 2024

Mr. Brian Rath, P.E., Environmental Engineer Senior  
IDNR – Land Quality Bureau  
Wallace State Office Building  
502 East 9<sup>th</sup> Street  
Des Moines, Iowa 50319-0034



**RE: Well Fate & Well Plugging Method Request  
Chickasaw County Sanitary Landfill Permit # 19-SDP-01-72C**

Mr. Rath:

As required by Iowa Administrative Code (IAC) 567, Chapter 39 and Chapter 135, the following monitoring wells associated with the referenced facility will be plugged and abandoned upon completion of the Environmental Covenant process; MW-1, MW-2, MW-3, MW-4; MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, PZ-2, PZ-3, PZ-4, PZ-5, PZ-6, PZ-7, PZ-9, and PZ-10. A map is attached for reference.

**Proposed Well Plugging Method (All wells Except PZ-4)**

The referenced monitoring wells are located outside of the landfill development footprint and there are no future landfill development areas that remain. Since the wells planned for plugging are situated outside the landfill liner footprint, we propose that the wells be plugged by placing a tremie tube to the bottom of the well casing and that high-solids bentonite grout slurry be pumped to the bottom of the well. This will force the bentonite grout slurry to fill the well screen and well casing from the bottom upwards and will force all water from the casing during grouting.

The proposed method does not involve over-drilling the well and does not conform to Iowa Administrative Code (IAC) 567, Chapter 113.10(2)"d"(2), which is interpreted to no longer apply to the site. However, the proposed well plugging method does conform to IAC 567, Chapter 39.8(3) (attached). The primary difference between the proposed IAC 567-39.8(3) well plugging method and the IAC 567-113.10(2)"d"(2) method is that the PVC well casing and screen would remain in place under IAC 567-39.8(3).

**Proposed Well Plugging Method (PZ-4)**

PZ-4 appears to be located within the landfill footprint. We proposed that PZ-4 be plugged and abandoned in accordance with Iowa Administrative Code (IAC) 567, Chapter 113.10(2)"d"(2), which requires over-drilling and removal of the well casing and well materials.

**Applies to All Wells**

The well plugging will be performed by a well driller certified under IAC 567, Chapter 82 (as required by both IAC 567-113 and IAC 567-39).

All well heads will be removed to 4 feet below grade. The ground surface will then be repaired and graded to drain away from the former well head. The IDNR Form 542-1226 will be submitted upon completion, as required by rule.

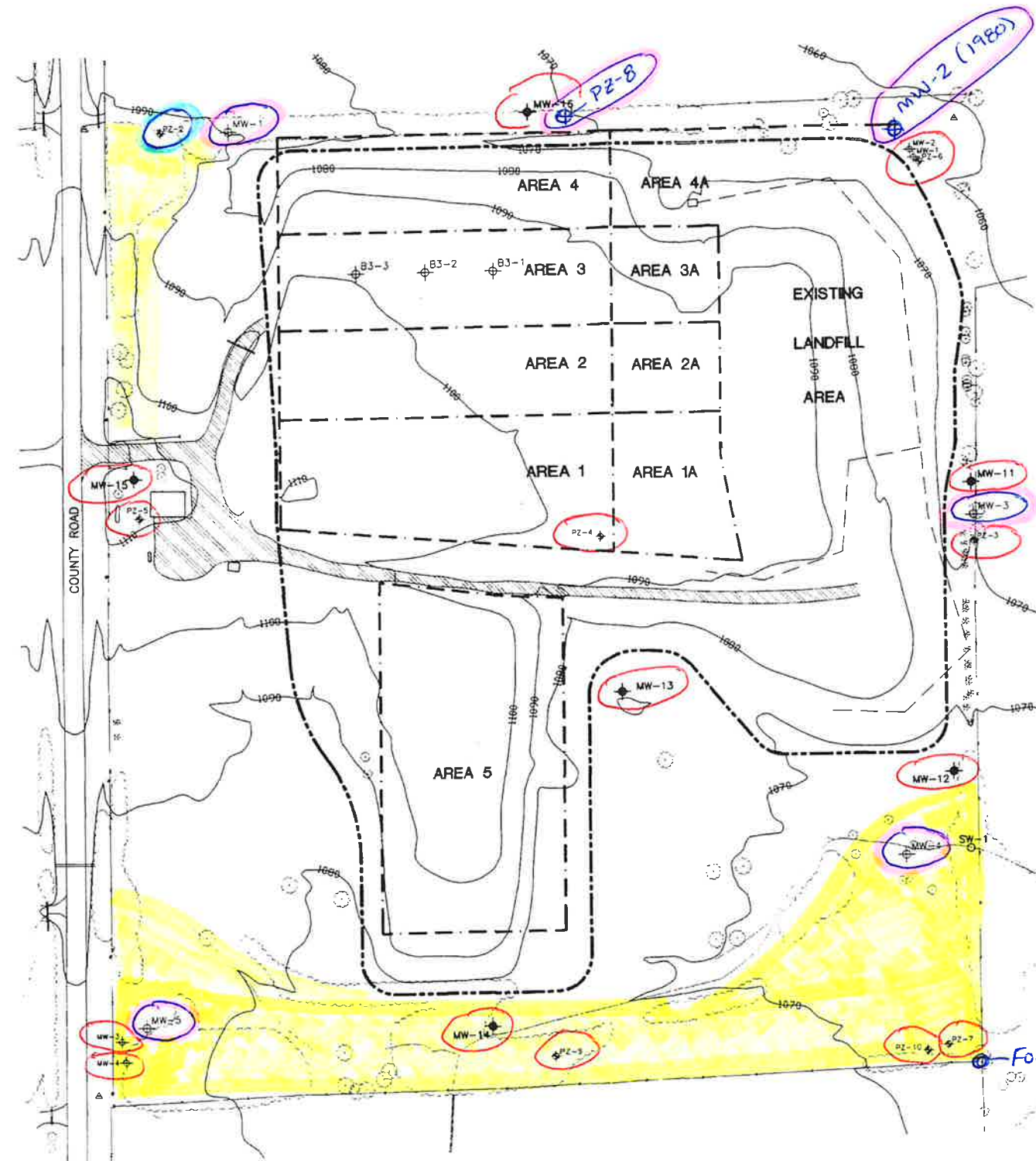
Please consider whether the proposed well plugging methods are acceptable to the Department. We would like to plug the wells upon filing of the Environmental Covenant and rescission of the Permit (presumably in 2024). Feel free to contact our office at (515)733-4144 with any questions that you may have.

Sincerely,  
**HLW Engineering Group**



Todd Whipple, CPG  
Project Manager

cc: *Chad Humpal, Director, Chickasaw County Conservation Board*



LEGEND

- MW-2 EXISTING MONITORING WELL
- PZ-5 EXISTING LEACHATE PIEZOMETER
- B3-2 SOIL BORING
- LEACHATE COLLECTION LINE
- LEACHATE COLLECTION TANK
- ASSUMED CELL BOUNDARY
- PROPOSED GROUNDWATER MONITORING WELL
- PROPOSED SURFACE WATER MONITORING POINT
- FIELD DEFINED WASTE BOUNDARY
- SURVEY CONTROL POINT

= WELLS PREVIOUSLY PLUGGED  
DOC # 39443

= COULD NOT FIND ON 1/22/24  
There are several trees down & lots of snow cover.

= PORTION OF SITE WHERE DRILL RIG ACCESS WILL BE DIFFICULT DUE TO BRUSH, TREES & SAPLINGS..

= WELL/PIEZOMETER LOCATED & MEASURED  
1/22/24

NOTE 1  
TOPOGRAPHY COMPILED BY STEROPHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY. DATE OF PHOTOGRAPHY: APRIL 23, 1993. CONTOUR INTERVAL: 2 FEET. ELEVATIONS BASED ON MEAN SEA LEVEL.

NOTE 2  
THE LOCATIONS OF THE LANDFILL AREAS, LEACHATE COLLECTION SYSTEM, AND EXISTING WELLS ARE APPROXIMATE. THESE WERE PLOTTED FROM MAPS BY OTHERS, AND THEIR EXISTENCE AND LOCATIONS WILL BE VERIFIED BY FIELD SURVEY.

NOTE 3  
WASTE BOUNDARY AS SHOWN IS BASED ON HAND ALGEBRA BORINGS BY HOWARD R. GREEN COMPANY, SEPTEMBER, 1997.

Con 12-1-1  
Doc # 39799

DRAWN BY: JEG JOB DATE: NOVEMBER, 1997  
APPROVED: GHF/CJB JOB NUMBER: 720990J  
CAD DATE: November 04, 1997 3:57:51 p.m.  
CAD FILE: Q:\CAD\720990J\DWGS\HMSP.DWG (JGALL)

NO.	DATE	BY	REVISION DESCRIPTION
1	3/1/98	JEG	ADD NOTE 2
2	11/3/97	JEG	ADD NOTE 3, WASTE BOUNDARY



CHICKASAW COUNTY SANITARY LANDFILL  
REVISED HMSP  
1997

PROPOSED MONITORING POINTS

SHEET NO  
**1**