

**2023-2024 LEACHATE CONTROL SYSTEM
PERFORMANCE EVALUATION**

FOR THE

CITY OF AMES SANITARY LANDFILL

AMES, IOWA

by:

HLW Engineering Group

204 West Broad Street

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Story City, Iowa 50248

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April, 2025



6001-24A.750

Certification

Prepared by: 

Date: 4/14/25

Printed: Douglas J. Luzbetak, P.E.

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Section 1.0 Background Information

Site Location

The City of Ames Sanitary Landfill is located in Section 1, T83N, R249W, Story County, Iowa. The waste deposition area on the site encompasses approximately 27 acres.

Landfill Layout

The site is situated in an industrial area of Ames, Iowa. Surface runoff from the site follows site topography and flows radially from the closed landfill area. All surface water ultimately ends up in the South Skunk River, which is located west of the landfill. Figure 1 is attached illustrating the current site features, property lines, waste boundaries, and leachate well locations.

Status of Permit

The facility was formally recognized as being closed in 1996 under Iowa Department of Natural Resources (IDNR) Permit Number 85-SDP-08-88C, issued August 19, 1996. The City of Ames has entered into an Environmental Covenant with the IDNR detailing future maintenance and monitoring requirements. The Environmental Covenant was recorded with the Story County Recorder as Instrument 2021-09924 on August 2, 2021 (Doc #102032). As a result, IDNR SDP Permit Number 85-SDP-08-88C was rescinded in the IDNR letter dated January 21, 2022 (Doc #102092). This letter also served as “notice of completion of the regulated post-closure care period for the City of Ames Sanitary Landfill”.

Section 2.0 Leachate Collection System Performance Evaluation

Leachate System Performance

Based on a completed and certified site risk assessment, the City of Ames was conditionally exempt from providing and operating a leachate control system. Leachate collection piping was installed prior to closure, however, to provide localized control of leachate in the fill area. The system consists of perforated collection piping in both the northern and southern portions of the site.

All collected leachate is conveyed to the City of Ames Sanitary Sewer system through gravity collection pipes connected to an interceptor sanitary sewer located along the intermittent watercourses to the north and south of the landfill. The collected leachate is conveyed to the City of Ames Water Pollution Control (WPC) facility for treatment and disposal. The volume of leachate conveyed to the Ames Water Pollution Control Plant is reported as 21,605 gallons per month (approximately 259,262 gpy).

Leachate level measurements ceased when the permit was rescinded in 2021. City staff plans to abandon the remaining leachate wells (4) on site to eliminate obstacles encountered during site mowing and improve site maintenance. The locations of the leachate wells are included on Figure 1. Note that all of these leachate wells are in areas of the landfill closed with a 2’ soil cap. The

leachate wells will be removed by excavating below existing ground surface a minimum of 1' (but no more than 2'), removing well materials in the excavations, backfilling the excavations with soil, and reseeding the disturbed areas.

Besides the removal of the leachate wells no other modifications are recommended to the leachate collection system.

Leachate Testing

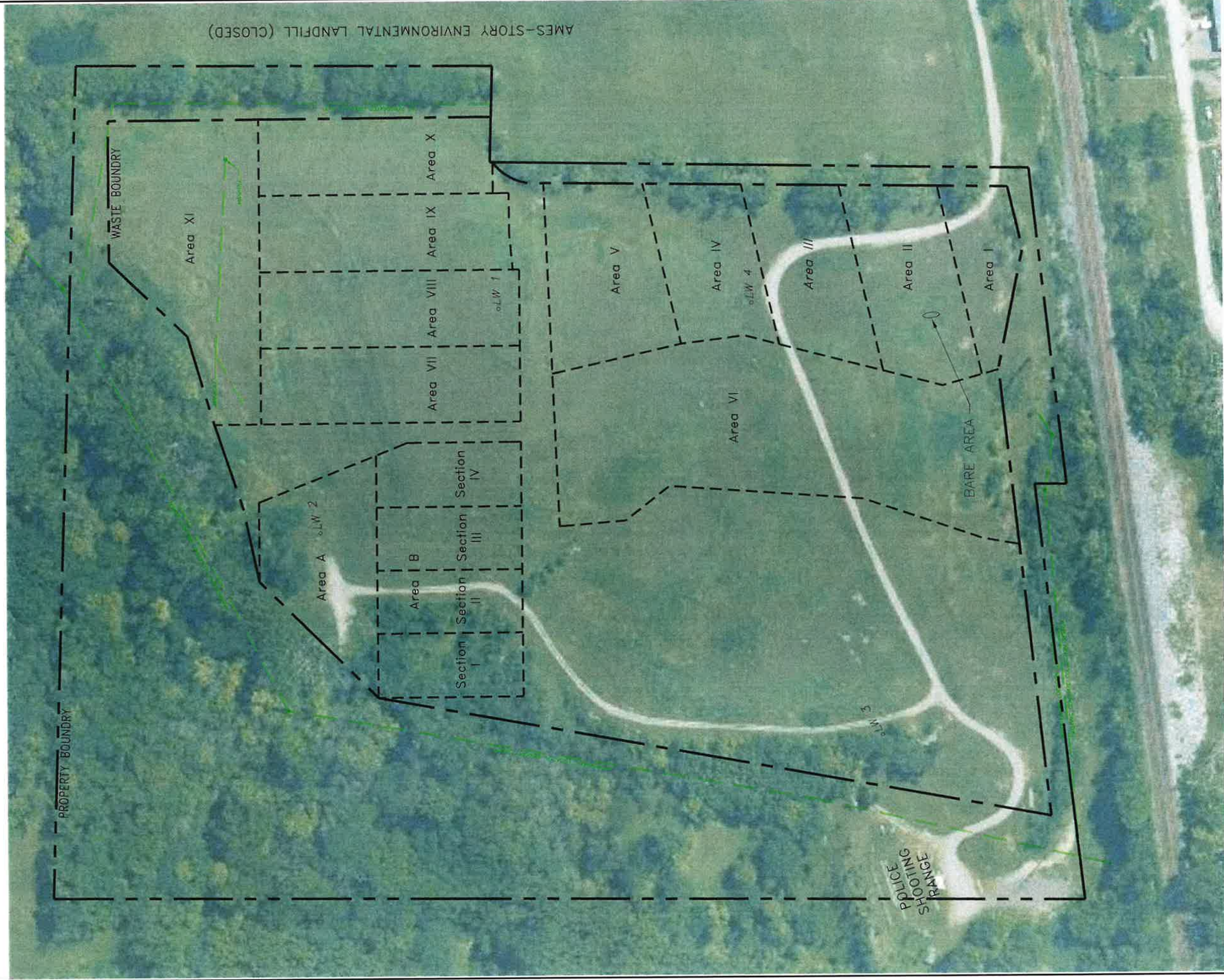
The City of Ames Sanitary Landfill was removed from the City of Ames Non-Domestic Waste Pretreatment Program effective September 1, 2015 (Attachment A). The City of Ames Sanitary Landfill was historically in compliance with the pretreatment standards established prior to removal from the program. As per the letter dated August 24, 2015 (Attachment A) “no further sampling will take place at the facility”.

Leachate Line Cleaning

Leachate collection piping was cleaned on October 17, 2024. The system will continue to be cleaned on an as needed basis.

Section 3.0 Recommendations

Continue to follow the maintenance and monitoring provisions of the Environmental Covenant. Continue operating the leachate collection system with reporting to IDNR in the form of a biennial Leachate Control System Performance Evaluation to be submitted in conjunction with the biennial Engineer’s Inspection Reports. The next Leachate Control System Performance Evaluation will cover calendar years 2025 and 2026 and be submitted in the Spring of 2027.



AMES-STORY ENVIRONMENTAL LANDFILL (CLOSED)

AERIAL DATED SEPTEMBER 2, 2023

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.



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SITE MAP
 2025 BIENNIAL INSPECTION
 AMES SANITARY LANDFILL
 AMES, IOWA

FIGURE: 1		
REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6001-23A	DATE 4/14/25

Attachment A

Removal of City of Ames Landfill from Non-Domestic Waste Pretreatment Program



COPY

August 24, 2015

John Joiner
City of Ames
Public Works Department
515 Clark Avenue
Ames, IA 50010

RE: Removal of City of Ames Landfill from Non-Domestic Waste Pretreatment Program

Dear Mr. Joiner:

The City of Ames Non-Domestic Waste Pretreatment Program is designed to prevent adverse impact to the Ames Water Pollution Control (WPC) Facility, municipal sanitary sewer system, and the receiving environment from non-domestic contributors.

We have just completed a review of the sampling data from the City of Ames Landfill. Concentrations of treatable parameters at this facility are typically well below the local limits. The City of Ames Landfill also has a low estimated flow (~22,000 gallons/month). Therefore, we have determined that the City of Ames Landfill does not have sufficient potential to adversely impact the Ames WPC Facility, municipal sanitary sewer system, nor the receiving environment.

Effective September 1, 2015, the City of Ames Landfill will be removed from the Non-Domestic Waste Pretreatment Program and no further sampling will take place at the facility.

The leachate discharged from the City of Ames Landfill can continue to be discharged to the sanitary sewer system for treatment at the Ames WPC Facility.

Please contact Dustin Albrecht or me at (515) 239-5150 if you have any questions or concerns regarding this decision.

Thank you for your cooperation with the Non-Domestic Waste Pretreatment Program.

Sincerely,

John Dunn
Director, Water & Pollution Control

DWA/JRD/klp

Cc: Bill Schmitt, City of Ames
Todd Whipple, HLW
Jim McElvogue, City of Ames
Maryann Ryan, City of Ames