709496

SIXTH FIVE-YEAR REVIEW REPORT FOR J & L LANDFILL SUPERFUND SITE OAKLAND COUNTY, MICHIGAN

Prepared by

U.S. Environmental Protection Agency
Region 5
Chicago, Illinois

4/21/2026

X Michael D. Harris

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Signed by: MICHAEL HARRIS

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LIST OF ABBREVIATIONS & ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
EGLE	Michigan Department of Environment, Great Lakes and Energy
EPA	United States Environmental Protection Agency
FYR	Five-Year Review
GSI	Groundwater/Surface Water Interface
IC	Institutional Control
MW	Monitoring Well
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OU	Operable Unit
PFAS	Per- and Polyfluoroalkyl Substance
PPB	Part Per Billion
PRP	Potentially Responsible Party
RA	Remedial Action
RAO	Remedial Action Objective
RC	Restrictive Covenant
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
Site	J & L Landfill Superfund Site
SVOC	Semi-Volatile Organic Compound
UAO	Unilateral Administrative Order
UU/UE	Unlimited Use and Unrestricted Exposure
VOC	Volatile Organic Compound

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The United States Environmental Protection Agency (EPA) is preparing this FYR pursuant to Section 121 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Section 300.430(f)(4)(ii)) and considering EPA policy.

This is the sixth FYR for the J & L Landfill Superfund Site (Site). The triggering action for this statutory review is the completion date of the previous FYR. The FYR has been prepared because hazardous substances, pollutants or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of two operable units (OUs) which will be addressed in this FYR. OU1 addresses the remedy components related to the Site landfill, and OU2 addresses the groundwater remedy.

The Site FYR was led by EPA Remedial Project Manager (RPM), Jeff Gore. Participants included EPA Community Involvement Coordinator, Ruth Muhtsun and Michigan Department of Environment, Great Lakes and Energy (EGLE) Project Manager, Nic Dawson. The FYR began on April 28, 2025, when a notification letter was sent to EGLE regarding initiation of the FYR (See Appendix D).

Site Background

The Site is a closed landfill located near the intersection of Hamlin and Dequindre Roads in Rochester Hills, Michigan (See Figure 1, in Appendix G). The Site occupies approximately 17 acres with the Site fence line just beyond the landfill boundary. A number of landfills surround the Site and are located within approximately a one mile radius area. The Site is bordered on the west by Sandfill Landfill #1, the Kingston Landfill and the Six-Star Landfill; to the east by Sandfill Landfill #2 and the Sportsman Club Landfill; further east are the Hamlin Road Landfill and the Malo Tree Landfill; and to the north of the Site is the Mal Enterprises Landfill. Residential homes exist just south of the Site along Hamlin Road. Other homes are located further to the northwest and east of the Site. There are no anticipated changes in the land use or landfills surrounding the Site.

The Site was historically used for sand and gravel mining prior to becoming a landfill. Disposal of steel slag and unspecified steel manufacturing wastes began in approximately 1951. J & L Steel purchased the Site property in 1957 from the Rotary Electric Steel Company and became the landowner. Beginning in 1968, electric arc furnace dust collected from steel manufacturing baghouse filters was deposited at J & L Landfill. Wastes continued to be deposited at the Site until 1980 when the landfill was closed and capped.

The Michigan Department of Natural Resources conducted an area groundwater study in 1976 and identified local groundwater contamination attributed primarily to surrounding landfill areas west of the J & L Landfill. As a result, local residents were provided with an alternate drinking water supply, and were connected to municipal water. EPA contractor Ecology and Environment, Inc. completed a Preliminary Site Assessment at J & L Landfill in 1983, a Site Inspection in 1984 and a field investigation in 1985. The Site was made final on the National Priorities List (NPL) on March 31, 1989.

The Site is located on the surface of a glaciolacustrine delta sloping to the southeast at a relatively shallow gradient. The geology is comprised of approximately 35 to 40 feet of sand and gravel deposits which have been

extensively mined throughout the area. Underlying the sand and gravel deposits are thick lacustrine and morainal silty clay deposits followed by bedrock composed primarily of shales. The Clinton River is located approximately one mile to the east. The groundwater at the Site flows from the west to east toward the Clinton River.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: J & L Landfill		
EPA ID: MID980609440		
Region: 5	**State:** MI	**City/County:** Rochester Hills/Oakland
SITE STATUS		
NPL Status: Final		
Multiple OUs? Yes	**Has the site achieved construction completion?** Yes	
REVIEW STATUS		
Lead agency: EPA		
Author name (Federal or State Project Manager): Jeff Gore		
Author affiliation: EPA Region 5		
Review period: 4/28/2025 – 12/16/2025		
Date of site inspection: 8/19/2025		
Type of review: Statutory		
Review number: 6		
Triggering action date: 4/30/2021		
Due date *(five years after triggering action date)*: 4/30/2026		

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

The EPA Remedial Investigation (RI) for the Site was carried out between April 1989 and December 1991 and consisted of groundwater and surface water sampling, and soil media sampling in the landfill area. Results of the RI are detailed in the RI report (Weston, December 1991).

The contaminants of concern (COCs) for all media types (soil, groundwater, and surface water) identified in the RI report, and the two Record of Decision (ROD) documents (EPA, June 1994; EPA, September 1997), included volatile organic compound (VOC) benzene, inorganics including arsenic, barium, chromium, iron, lead and manganese, and semi-volatile organic compound (SVOC) bis(2-ethylhexyl)phthalate. Two rounds of groundwater sampling of 13 monitoring wells (MWs) at locations surrounding the Site landfill during the RI indicated that the COCs were detected in at least some of the MW locations during both sampling events. The RI found that the

primary elevated risk at the Site was that the landfill cap was not being maintained, showed signs of erosion and was not adequate to properly contain the waste material.

The primary exposure pathways of concern that needed to be addressed included direct contact and inhalation exposure to landfill material itself, or from contaminated landfill material migrating into groundwater to nearby population areas, or to surface water. Residents who did not utilize public water and depended on downgradient private groundwater wells for drinking water or accessed any contaminated surface water could have been at risk via the potential exposure pathway of ingestion, inhalation, and dermal contact of groundwater or surface water. Therefore, these exposure pathways needed to be addressed with taking response actions at the Site.

Response Actions

The EPA signed a ROD on June 30, 1994 for OU1. The ROD stated that the selected remedy for OU1 consists of a 1-foot compacted clay layer overlain with a Geosynthetic Clay Liner/60 mil Flexible Membrane Liner barrier layer, a drainage layer consisting of geonet with geotextile filter fabric, a 36-inch clean fill layer, and a 6-inch topsoil layer.

Other components of the selected remedy from the 1994 ROD include:

- Consolidating any contaminated surface soils and sediments, including landfill waste, from the east ditch to beneath the existing landfill cap;
- Preparing the existing landfill surface in order to provide a foundation for the new cap, as well as removing existing vegetation from the landfill surface;
- Abandoning (plugging) the sediment pond culverts, consolidating any contaminated soils/sediments beneath the existing landfill cap and backfilling the sedimentation pond to grade with clean fill;
- Regrading the south ditch to retain existing storm water capacity;
- Regrading the surface of the site to promote surface water runoff so it properly drains off the cap into a collection system, or drainage ditches around the perimeter of the Site;
- Retrofitting existing monitoring wells;
- Installing a passive gas management system;
- Implementation of a long-term groundwater monitoring program to ensure the effectiveness of the remedial action;
- Vegetative cover placement;
- Fence installation;
- Use of Institutional Controls (ICs), including deed restrictions, to limit land and groundwater use; and
- Developing a monitoring plan for landfill cap integrity, fence inspection, and landfill gas migration.

The EPA signed a ROD on September 30, 1997 for OU2 which selected the following remedy components for OU2 to address the Site groundwater:

- Requirements to implement enforceable deed restrictions which restrict groundwater use at that portion of the facility where contaminated groundwater from J & L Landfill has come to be located under Sandfill Landfill #2, in addition to the deed restriction currently in place on the Site property;
- Installing three MW nests, one upgradient and two downgradient, with each nest consisting of a shallow and a deep well;
- Performing baseline quarterly groundwater monitoring and subsequent annual groundwater monitoring, if deemed appropriate, of COCs at residential wells and at on-site and offsite MWs. As a

contingency, if these downgradient wells indicate that there is an unacceptable risk due to contamination from the Site, residences will be provided with an alternate water supply.

Remedial action objectives (RAOs) for the Site remedy based on the 1994 ROD and the 1997 ROD are:

(1) The containment and maintenance of consolidated waste material beneath the landfill cap remedy to prevent direct contact with contaminants in concentrations above excess lifetime cancer risk levels greater than 1E-04;
(2) Prevent ingestion, inhalation, and dermal contact of groundwater under the Site having COCs in excess of MDEQ generic industrial cleanup criteria;
(3) Prevent ingestion, inhalation, and dermal contact of groundwater under the Site having a total excess cancer risk for COCs of greater than 1E-04;
(4) Prevent ingestion of groundwater under the Site having COCs in excess of a Hazard Index greater than 1.0;
(5) ICs to restrict property and groundwater use; and
(6) Prevent migration of contaminants beyond the Site landfill waste boundary that would result in downgradient groundwater having COCs in excess of MDEQ generic residential cleanup criteria and groundwater/surface water interface (GSI) values.

Table 1 lists the Site COCs for groundwater and GSI and the corresponding cleanup standards that are to be achieved.

Table 1: Groundwater and GSI Cleanup Standards for COCs

Contaminant of Concern	**Michigan Part 201 Residential Drinking Water Criteria**	**Part 201 Nonresidential Drinking Water Criteria**	**Part 201 GSI Criteria**
Benzene	5	5	200
Arsenic	10	10	10
Barium	2000	2000	5000
Chromium	100	100	11
Iron	300*	300*	NA
Lead	4	4	NA
Manganese	50*/860	50*/2500	NA
bis(2-ethylhexyl) phthalate	6	6	25

All units in part per billion (ppb).
* Criteria is aesthetic/second criteria (for example manganese has aesthetic/second criteria and health based drinking water criteria).
GSI = Groundwater/Surface Water Interface
NA refers to criteria not available or established for Part 201 criteria.

Status of Implementation

OU1 Remedy

In 1994, negotiations with the potentially responsible party (PRP) for performance of the remedial design/remedial action (RD/RA) were initiated but no settlement was reached. On June 27, 1995, the EPA issued a Unilateral Administrative Order (UAO) (EPA, June 1995) pursuant to Section 106 of CERCLA requiring the PRP to perform the RD/RA for the landfill remedy and take additional samples for the groundwater remedy.

Construction of the OU1 landfill remedy began in the summer of 1996 and was completed in the fall of 1997. The multi-layer cap with protective liner, perimeter fence and identifying signs were constructed to cover and enclose all landfill waste and the east ditch. The remedy provided monitoring for the landfill and groundwater monitoring of existing Site MWs installed during the RI. The sediment pond was also backfilled with clean fill, culverts were sealed to avoid leachate migration, and the security chain link fence was installed. The Site achieved construction completion status for remedy implementation in September 1997 (EPA, September 1997). The landfill gas vent tops were replaced with gas vent turbines in 2011 and 2012.

OU2 Remedy

The EPA issued a second UAO pursuant to Section 106 of CERCLA on June 5, 1998 (EPA, June 1998) requiring the PRP to perform the RD/RA for the groundwater remedy selected in the OU2 ROD. An expanded groundwater monitoring program was approved in 1998, which included 10 MW locations.

An Alternative Water Supply Plan was submitted to the EPA in 1999 and local resident surveys were completed in 1999, 2000 and 2001 to assess the need for public water. A public water supply main extension along Dequindre Road and a total of five private well abandonments were completed in August 2002. No further private well abandonments have been needed near the Site as municipal water is available in the area.

Institutional Controls

ICs for the Site were required by the 1994 and 1997 RODs to restrict use of the land and the groundwater, maintain the integrity of the remedy, and ensure the long-term protectiveness for Site areas which do not allow for UU/UE. Table 2 below identifies the ICs that have been implemented at the Site to achieve these requirements.

Table 2: Summary of Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Site Area (~17 acres): Landfill cap and other on-site areas with remedy components; covering both soil and groundwater. The property is owned by the Michigan Land Bank. See Figures 2 and 3, in Appendix G.	Yes	Yes	Parcels including: 15-24-401-039 and 15-24-401-040.	Restricts use of land and groundwater underlying the Site, and assures integrity of landfill and other remedy components. Prohibits activities that would cause existing contamination from the Site landfill to migrate beyond the Site property.	Declaration of Restrictive Covenant (RC) and Grant of Environmental Protection Easement, recorded March 26, 2015; Oakland County Liber 47998, Page 701

Status of Access Restrictions and ICs: Site access restrictions that are in place include a Site perimeter fence with locked gate and warning signs identifying the area as a Superfund Site.

A Declaration of RC and Grant of Environmental Protection Easement (Liber 47998, Page 701) was recorded at the Oakland County Recorder's office on March 26, 2015, on an approximately 17 acre property owned by the Michigan Land Bank.

Current Compliance: Based on inspections and discussions with EGLE during this FYR period, including the August 19, 2025 Site inspection, EPA is not aware of Site or media uses that are inconsistent with the implemented IC's stated objectives. EGLE continues to perform Operation and Maintenance (O&M) activities of site remedy components, including monitoring and inspections at the Site.

Long-Term Stewardship: Since compliance with ICs is necessary to ensure the remedy's protectiveness, long-term stewardship procedures are necessary to help ensure that the ICs are maintained, monitored, and enforced long-term. The 1999 Site O&M Plan includes procedures for monitoring and maintaining Site ICs (URS Greiner Woodward Clyde, April 1999). Annual O&M progress reports provided by EGLE to the EPA include a section that outlines and updates the status of ICs at the Site.

Systems Operations/Operation & Maintenance

The Site O&M Plan was approved in 1999. O&M responsibilities were performed by the PRP contractor until EGLE began performing the Site O&M activities after 2006. EGLE provides annual O&M progress reports for reference to the EPA. The December 2024 Annual O&M Report (EGLE 2024), along with the historical Site data, were reviewed for this FYR report. The annual reports report on the sampling, maintenance, monitoring, and IC activities at the Site. O&M activities include periodic landfill cap area mowing, occasional maintenance of the landfill cap and groundwater monitoring wells, site inspections with landfill gas monitoring, groundwater monitoring of Site groundwater wells, and monitoring of ICs. EGLE performed these O&M activities during the current FYR period per the O&M Plan without any noted problems. The O&M of the Site remedy is ongoing.

III. PROGRESS SINCE THE LAST REVIEW

This section includes the protectiveness determinations and statements from the last FYR as well as the recommendations from the last FYR and the current status of those recommendations.

Table 3: Protectiveness Determinations/Statements from the 2021 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1/ 2/ Sitewide	Short-term Protective	The remedy at J & L Landfill Site is currently protective of human health and the environment. The Site remedy components have been implemented and the landfill cap, groundwater monitoring, ICs, and O&M program are effectively controlling unacceptable risks at the Site. However, in order for the Site remedy to be protective in the long-term, the following actions need to be taken to ensure protectiveness: Complete an EPA FYR Site inspection with FYR Site Inspection Checklist and photographs for inclusion in the Site files as soon as is feasible; and perform evaluation of need to include sampling for per- and polyfluoroalkyl substance (PFAS) compounds in groundwater and any additional landfill methane migration monitoring in future O&M at the Site .

Table 4: Status of Recommendations from the 2021 FYR

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
1/2/	EPA FYR Site	Complete an EPA FYR Site	Completed	A FYR Site inspection with FYR	July 14, 2021.

Sitewide	inspection did not occur due to work travel restrictions and concerns over COVID-19.	inspection with FYR Site Inspection Checklist and photographs for inclusion in Site files as soon as is feasible.		Site Inspection Checklist and photographs was completed by EGLE Project Manager, Nic Dawson, and included in the EPA Site file.	
1/2/ Sitewide	Evaluate need for PFAS sampling and any additional methane monitoring for the O&M monitoring program at Site.	Perform evaluation of need to include sampling for PFAS compounds in groundwater and any additional landfill methane migration monitoring in future O&M at the Site.	Completed	Groundwater sampling for PFAS compounds and additional methane monitoring was determined not to be needed at the current time for Site O&M. Annual O&M Report (EGLE, December 2022).	December 27, 2022

A FYR Site inspection was performed on July 14, 2021 by EGLE Project Manager Nic Dawson. The FYR Site Inspection Checklist was completed for the Site inspection and photos were taken of the Site and the landfill surface. The Site inspection checklist and photos record were included in the EPA Site file. During this 2021 Site inspection, the weather was sunny and clear with a temperature of 80 degrees. The Site perimeter access fence was in place and intact. The landfill surface was properly vegetated and mowed. There were no major issues identified at the Site during the 2021 FYR Site inspection.

Due to the limited nature of the waste historically deposited by the one PRP at the Site, during the 2022 evaluation, it was determined that groundwater sampling for PFAS compounds was not currently needed. It was also determined that additional O&M methane monitoring was not necessary as methane detections in all wells sampled were below flammability/explosivity screening levels and did not present an off-site migration risk. However, EGLE and EPA now recommend PFAS sampling of Site groundwater as a result of the potential of PFAS compounds existing in unspecified steel manufacturing wastes contained in the Site landfill.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

A public notice was made available by newspaper in the *Oakland County, Michigan Oakland Press*, on 8/24/2025 stating that there was a FYR in progress and inviting the public to submit any comments to the EPA. No comments were received as a result of the public notice. The results of the review and the report will be made available at the Site information repository located at the Rochester Hills Public Library, 500 Olde Town Road, Rochester Hills, Michigan, and on the EPA website for the Site at https://www.epa.gov/superfund/jl-landfill.

The EGLE Project Manager Nic Dawson and the EPA RPM have had ongoing correspondence and communications regarding the Site status during this current FYR period. The primary concern from EGLE arose during the latter part of the current FYR period involving the potential for PFAS contamination in Site groundwater due to the unspecified steel manufacturing wastes that were deposited in the Site landfill between 1951 and closure in 1980.

Data Review

OU1 Landfill Methane Monitoring

Methane samples are collected from eight landfill passive vents and six perimeter gas probes once per year. Methane samples reported during the current FYR period continued to produce consistently low readings as measured in percent methane. Results for seven of the eight vents and five of six gas probes produced readings

between 0-1% methane during this FYR reporting period. One vent located on the landfill cap had a range of 4-6% methane, and one other perimeter gas probe had consistently low level readings of 3% methane during this FYR reporting period. Because the Site is surrounded by other unvented and ungraded, flat landfills, there is potential that the Site methane results may be influenced by Sandfill Landfill #1 to the west and Sandfill Landfill #2 to the east. These low level results do not pose any concern of landfill methane migration for areas at or beyond the Site landfill perimeter.

OU2 Groundwater Monitoring

Ten perimeter landfill groundwater MWs are part of the O&M monitoring program, although only nine are regularly sampled as MW-01S does not typically produce sufficient groundwater for analysis when purged during sampling events. Groundwater samples for the Site are collected annually at the perimeter monitoring wells for VOCs, SVOCs and inorganic compounds (see Figure 3 in Appendix G for MW locations). Table 5 shows concentration ranges for the five MWs that had exceedances of Site COCs Michigan Part 201 health based cleanup standards for arsenic, barium, chromium, lead, and manganese during the current FYR period.

Table 5: MWs and Concentration Range of COCs with Exceedances of Health Based Cleanup Standards (in ppb)

	Arsenic	Barium	Chromium	Lead	Manganese
MW-02D	11–15	-	-	-	-
MW-03S	-	-	24–35	8–14	-
MW-07S	-	1,300–2,300	9–12	-	-
MW-08S	2–18	-	-	-	230–1,500
MW-08D	-	-	1–240	-	-

- refers to no exceedances for COC at MW location during current FYR period.
Health Based Cleanup standards in ppb (Residential; Nonresidential; GSI):

Arsenic:	10;	10;	10
Barium:	2,000;	2,000;	5,000
Chromium:	100;	100;	11
Lead:	10;	4;	NA
Manganese:	860;	2,500;	NA

Monitoring wells MW-01D, MW-02S, MW-03D, MW-07D did not have any COC exceedances of the health based cleanup standards. Aesthetic/secondary criteria were exceeded for COCs iron and manganese in all nine monitoring wells during this FYR period. The aesthetic/secondary criteria for iron is 300 ppb, and concentrations ranged from 2,500 to 41,000 ppb. The aesthetic/secondary criteria for manganese is 50 ppb, and concentrations ranged from 46 to 1,500 ppb. The COC bis(2-ethylhexyl)phthalate was not detected at any MW locations during the current FYR reporting period.

The COC benzene had decreased to below the residential drinking water standard of 5 ppb at all MWs during the current FYR period. During the previous FYR period, MW-07S recorded a range of 10-15 ppb in concentration for benzene, while benzene concentration results in MW-07S ranged from non-detect to 4 ppb during the current FYR reporting period. MW-07S was the only monitoring location where the residential drinking water standard for benzene was exceeded during the previous FYR period.

Summary

During this FYR period, landfill passive gas vent and perimeter gas probe monitoring over the landfill area and fence line continue to report minimal to low detections of methane that do not pose any concern of landfill methane migration for areas at or beyond the Site landfill perimeter. Monitoring of Site groundwater during the current FYR period showed that benzene had decreased to below the residential drinking water standard of 5

ppb at all 9 MWs. A number of inorganic compounds continue to exceed groundwater and/or GSI cleanup standards in at least one of the MW locations. This is likely to continue as the Site is bordered on the west and the east by landfills, as well as surrounded by a number of other local area landfills. There is no coordination of the Site O&M program with the numerous surrounding local landfills and no monitoring program exists at the landfills directly bordering the Site. EPA and EGLE staff will continue to discuss the ongoing Site O&M program so that Site ICs remain current, and the appropriate monitoring occurs to ensure protectiveness. In conclusion, the current FYR data results show some progress toward achieving RAO cleanup standards for certain Site COCs in groundwater and surface water while other COCs remain above RAOs. The Site remedy, including the landfill cap, ICs, and O&M monitoring have effectively protected the public from exposure to contaminated waste material beneath the landfill cap and from ingestion of groundwater impacted by the Site by providing implemented ICs and municipal water use by local area residents.

Site Inspection

The inspection of the Site was performed on August 19, 2025, by EPA RPM, Jeff Gore. The EGLE Project Manager, Nic Dawson, participated in the Site inspection. The FYR Site Inspection Checklist was completed for the Site inspection and photos were taken of the Site entrance area with permanent marker, landfill cap surface, and a groundwater MW location to document current Site conditions. The Site inspection checklist and photo log reference are included in Appendix E of this FYR report.

The weather was cloudy with light rain and approximate temperature of 70 degrees. The Site was found to be in good condition during the inspection. The entrance road to the landfill gate was properly cleared and covered with gravel, and the perimeter fence gate with a warning sign was open as Nic Dawson was already present. A walk over the landfill cap found the surface to be properly vegetated, recently mowed, with landfill vents in place, and with only minor settlement on the slopes of the cap perimeter. The groundwater MWs inspected were properly marked, capped and locked. In summary, no major issues were found during the Site inspection.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Yes. Remedial components included in the Site's 1994 and 1997 RODs have been implemented and continue to operate and function as designed. The Site remedy is currently in long-term O&M. The completed remedial action components, including the landfill cap, ICs, public water supply main extension providing an alternative water supply to local residents, and the Site perimeter security fence remain in place to help prevent unacceptable exposures. The Site's O&M program, with continued maintenance and monitoring of the landfill cap, associated gas vent turbines, and groundwater MWs, provides assurance of both the containment of soil contamination and waste, and limiting groundwater contamination from the landfill so that it does not migrate.

Groundwater monitoring during the current FYR period showed that RAO goals of reducing groundwater contaminant concentrations below excess lifetime cancer risk levels and Michigan Part 201 criteria are being met for the COCs benzene and bis(2-ethylhexyl)phthalate, but not at certain MW locations for arsenic, barium, chromium, iron, lead and manganese. This is potentially due to the groundwater migration from landfills located directly upgradient to the Site. A memo waiver attached to the 1997 ROD includes language that Part 201 criteria exceedances exist both upgradient and downgradient of the Site that are not necessarily related or attributable to the Site.

ICs in the form of a Declaration of an RC with Grant of Environmental Protection Easement have been implemented to ensure that the remedy remains protective. Access restrictions have also been put into place,

including a Site perimeter security fence with locked gates, and warning signs identifying the Site. ICs and access restrictions are reviewed regularly and remain effective as part of the Site O&M program in preventing exposures to contaminants. O&M progress reports consistently provide updates on the status of ICs. Based on inspections during this FYR period, including the August 19, 2025 Site inspection, the EPA is not aware of Site or media uses that are inconsistent with the implemented ICs or IC objectives.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

Yes. The exposure assumptions and toxicity data are still valid and there have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. The reasonably anticipated future landfill and residential land uses of the area surrounding the Site are expected to remain the same. There has been no change to the risk assessment methodology utilized at the Site that would affect the protectiveness of the remedy.

Changes in Exposure Pathways, Toxicity and Other Contaminant Characteristics

There have been no changes in exposure pathways, toxicity, or other contaminant characteristics that could affect the protectiveness of the remedy. The landfill cap and associated Site O&M program remain in place; ICs are in place and effective; the public water supply main extension provides an alternative water supply to local residents; and there are no known impacts to any residences or other off-site areas from potential exposure pathways from the Site. However, as a result of the potential of PFAS compounds existing in Site landfill unspecified steel manufacturing wastes, the EPA has included sampling Site groundwater for PFAS compounds as an issue and recommendation in this FYR to determine if PFAS compounds are present and related to this Site.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

No. There was no information generated during this sixth FYR that calls into question the protectiveness of the remedy. There have been no impacts from natural disasters near the Site.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the Five-Year Review:
OU1

Issues and Recommendations Identified in the Five-Year Review:	
OU: 2	**Issue Category:** Monitoring
	Issue: PFAS may be present in Site groundwater.
	Recommendation: Conduct PFAS sampling to determine if PFAS compounds are present and related to this Site.

Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	EPA/State	EPA	12/31/2027

VII. PROTECTIVENESS STATEMENT

OU1 Protectiveness Statement
Protectiveness Determination: Protective
Protectiveness Statement: The remedy for OU1 at the J & L Landfill Site protects human health and the environment because the OU1 Site remedy components operate and function as designed, and the landfill cap with passive gas management system, monitoring program, ICs, and O&M program are effectively controlling unacceptable risks and exposures at the Site.

OU2 Protectiveness Statement
Protectiveness Determination: Short-term Protective
Protectiveness Statement: The remedy for OU2 at the J & L Landfill Site currently protects human health and the environment because the OU2 Site remedy components operate and function as designed, and the monitoring program, ICs, public water supply main extension, and O&M program are effectively controlling unacceptable risks and exposures at the Site. However, in order for the remedy to be protective in the long term, the following action needs to be taken to ensure protectiveness: Conduct PFAS sampling to determine if PFAS compounds are present and related to this Site.

Sitewide Protectiveness Statement
Protectiveness Determination: Short-term Protective
Protectiveness Statement: The remedy at the J & L Landfill Site currently protects human health and the environment because the Site remedy components operate and function as designed, and the landfill cap with passive gas management system, monitoring program, ICs, public water supply main extension, and O&M program are effectively controlling unacceptable risks and exposures at the Site. However, in order for the remedy to be protective in the long term, the following action needs to be taken to ensure protectiveness: Conduct PFAS sampling to determine if PFAS compounds are present and related to this Site.

VIII. NEXT REVIEW

The next FYR report for the J & L Landfill Superfund Site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

- Weston, 1991, Remedial Investigation Report, December
- EPA, 1994, Record of Decision: J & L Landfill OU1, June 30
- EPA, 1995, Administrative Order: Operable Unit 1, June 27
- EPA, 1997, Record of Decision: J & L Landfill OU2, September 30
- EPA, 1997, Preliminary Close-Out Report, J & L Landfill, September 30
- EPA, 1998, Administrative Order: Operable Unit 2, June 5
- URS Greiner Woodward Clyde, 1999, Operation and Maintenance Plan, April 8
- EPA, 2021, Fifth Five-Year Review Report: J & L Landfill Site, April 30
- EGLE, 2022, Annual O&M Report, December 27
- EGLE, 2023, Annual O&M Report, December 18
- EGLE, 2024, Annual O&M Report, December 18

APPENDIX B – SITE CHRONOLOGY

SITE CHRONOLOGY

Chronology of Site Events	
Date	**Event**
December 1983	Preliminary Site assessment by EPA
December 1985	Site field investigation
March 1989	NPL final listing for the J & L Landfill Site
April 1989	RI/FS initiated
June 1994	RI/FS completed for landfill
June 1994	ROD signed for OU1
June 1995	UAO issued for OU1
September 1997	RI/FS completed for groundwater
September 1997	ROD signed for OU2
September 1997	Remedy Construction Completion
June 1998	UAO issued for OU2
September 2001	First FYR completed
August 2002	Water main extension and well abandonment completed
August 2006	Second FYR completed
June 2011	Third FYR completed
May 2016	Fourth FYR completed
April 2021	Fifth FYR completed

APPENDIX C – SITE INSTITUTIONAL CONTROLS (ICs)

The following provides the required ICs for the Site. A Declaration of Restrictive Covenant and Grant of Environmental Protection Easement (Liber 47998, Page 701) provides the required ICs for the Site and was recorded at the Oakland County, MI Recorder's office on March 26, 2015. The IC document is available at the EPA Region 5 Record Center

IC Document Title	Date Implemented	EPA Region 5 Record Center #
Declaration of Restrictive Covenant and Grant of Environmental Protection Easement Liber 47998, Page 701	3/26/2015	473240

APPENDIX D

FYR NOTIFICATION LETTER & NEWSPAPER AD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

April 28, 2025 SR-6J

Nicolas Dawson
Michigan Department of Environment, Great Lakes, and Energy (EGLE)
Constitution Hall, P.O. Box 30473
Lansing, MI 48909-7973

Re: Notification of Five Year Review Start for the J & L Landfill Site

Dear Mr. Dawson:

This letter is to notify you that the United States Environmental Protection Agency (EPA) has begun the process of the Five Year Review for the J & L Landfill Superfund Site in Rochester Hills, Michigan. A Statutory Five Year Review for the Site will be conducted as required by Section 121 of CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).

The Five Year Review for the J & L Landfill Site is due April 30, 2026, and we are providing you this notification so that EPA and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) can begin the necessary activities for the review process. A site inspection will be scheduled, and I am available to discuss any of the matters concerning the Site Five Year Review process.

Please contact me at 312-886-6552 if you have any questions or concerns regarding this Five Year Review for the J & L Landfill Site.

Sincerely,

Jeff Gore
Remedial Project Manager, EPA

bcc: Elizabeth Nightingale
Jennifer Elkins
Robert Franks EGLE
Bonnie Eleder, Kathleen Meier, Viral Patel
Ruth Muhtsun, OPA
Richard Murawski, ORC

EPA Begins Review of J&L Landfill Superfund Site

Rochester Hills, Michigan

U.S. Environmental Protection Agency is conducting a five-year review of the J&L Landfill Superfund site located on Hamlin Road in Rochester Hills, Michigan. The Superfund law requires regular checkups of sites that have been cleaned up – with waste managed on-site – to make sure the cleanup continues to protect people and the environment. This is the sixth five-year review for this site.

EPA's cleanup of the closed landfill consisted of a hazardous waste cap, limits on use of the area, and long-term ground water monitoring and cap maintenance. EPA will evaluate site documents, results of periodic inspections, and operation and maintenance sampling activities.

More information is available at the Rochester Hills Public Library, 500 Olde Towne Road, and at www.epa.gov/superfund/. The review should be completed by the end of April 2026.

The five-year review is an opportunity for you to tell EPA about site conditions and any concerns you have. Contact:

Jeffrey Gore
Remedial Project Manager
312-886-6552
gore.jeffrey@epa.gov

Ruth Muhtsun
Community Involvement Coordinator
312-886-6595
muhtsun.ruth@epa.gov

You may also call Region 5 toll-free at 800-621-8431, 9:30 a.m. to 5:30 p.m., weekdays.

APPENDIX E – SITE O&M REPORT MONITORING DATA

The EGLE O&M Annual Monitoring Report dated December 18, 2024 provides a summary of the current and historical O&M monitoring data for the Site. The document is available in the EPA Region 5 Record Center.

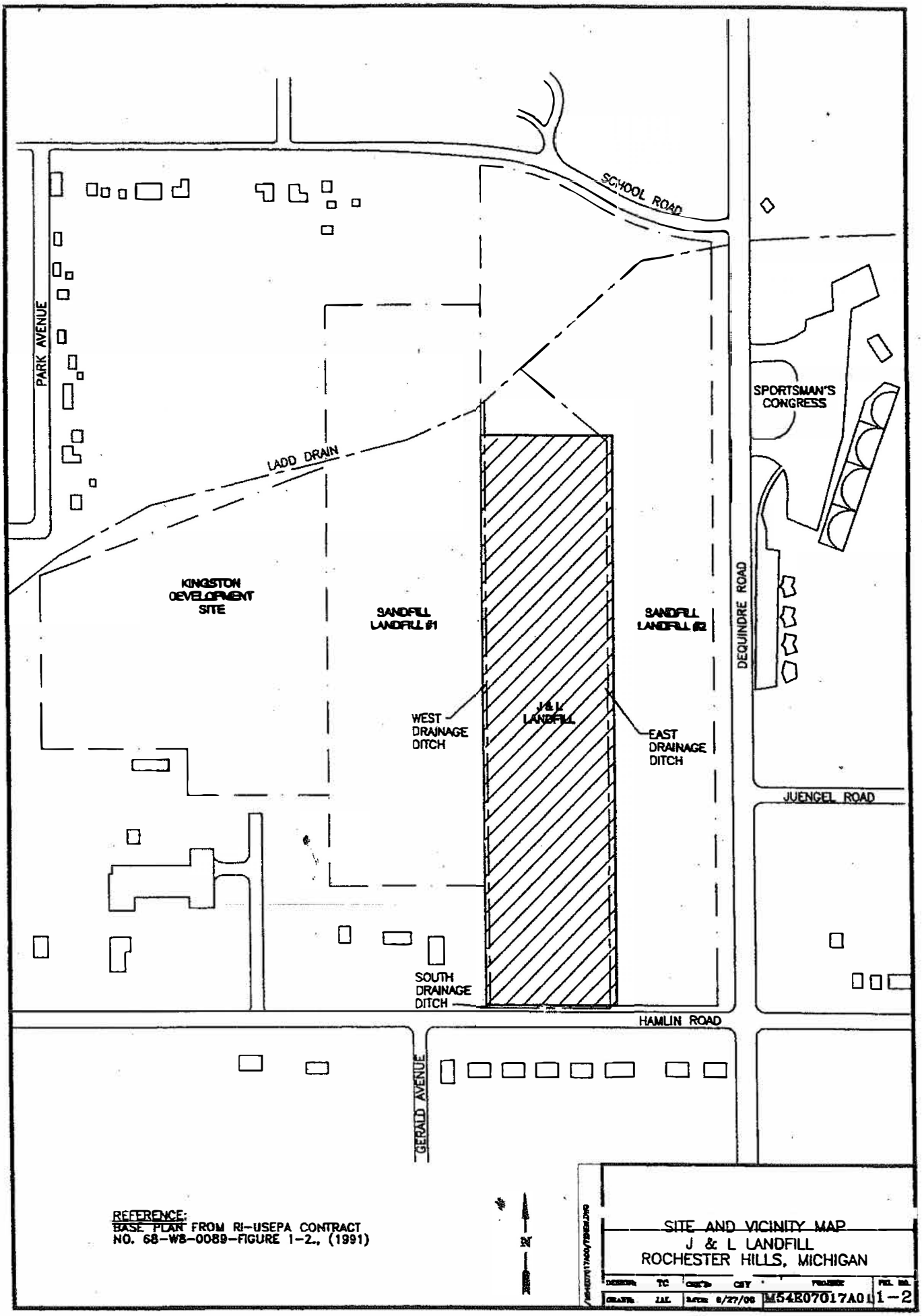
Document Title	Document Date	EPA Region 5 Record Center #
December 2024 EGLE O&M Annual Monitoring Report J & L Landfill Superfund Site	December 18, 2024	998152

APPENDIX F – SITE INSPECTION CHECKLIST AND PHOTOS

The Site inspection for this FYR report was performed on August 19, 2025 by EPA RPM Jeff Gore. The FYR Site Inspection Checklist was completed for the Site inspection and Site photos were taken of the Site entrance area with permanent marker, landfill cap surface, and a groundwater MW location.. The document is available in the EPA Region 5 Record Center.

Document Title	Document Date	EPA Region 5 Record Center #
FYR Site Inspection Checklist with Photographs J & L Landfill Superfund Site	August 19, 2025	703953

APPENDIX G - SITE FIGURES



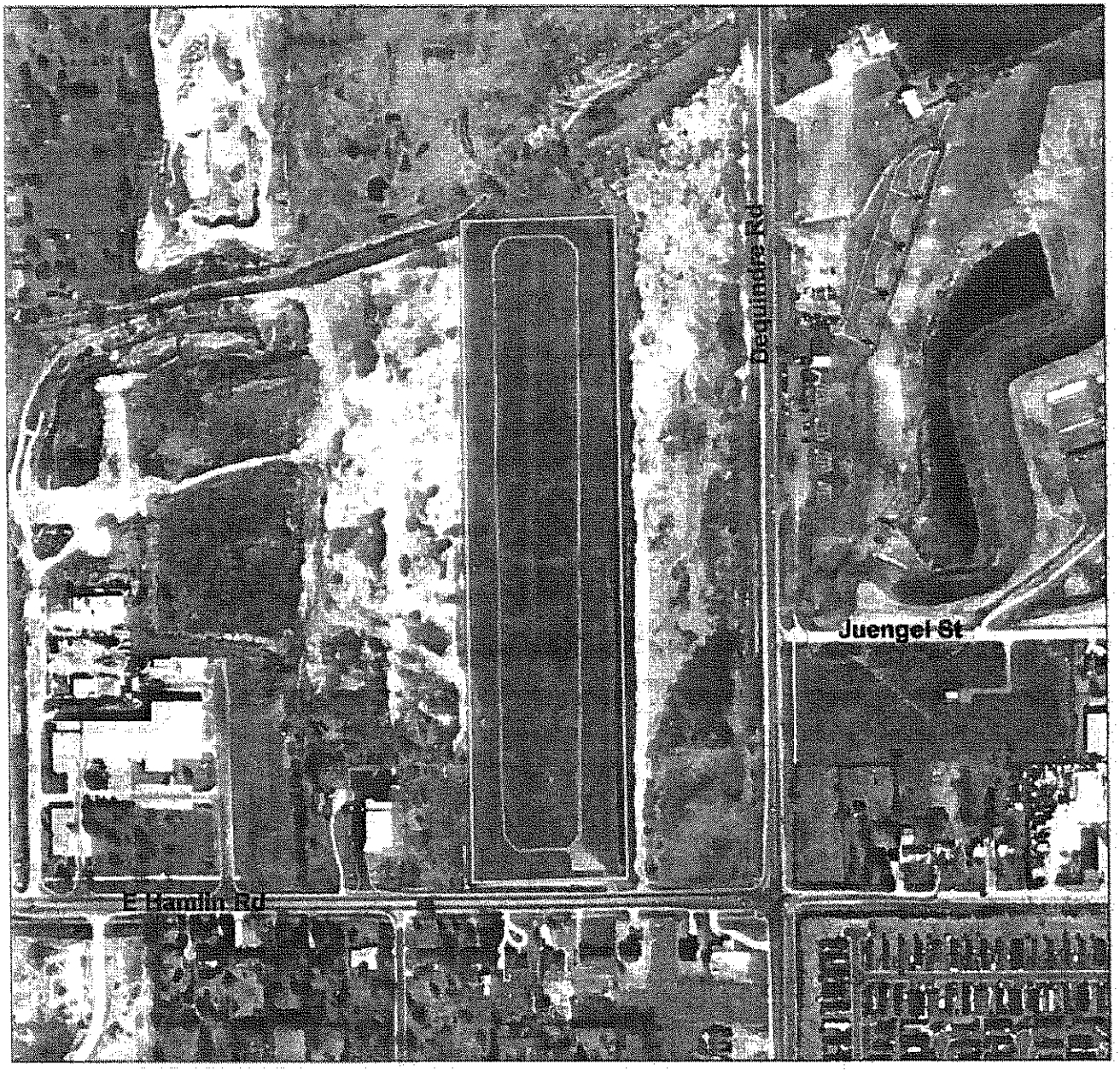
Appendix G, Figure 1

Institutional Control (IC) Review
Site Base Map

Superfund
U.S. Environmental Protection Agency

J & L Landfill
Oakland County, MI

MID980609440



Legend

Site Boundary

0 200 400 Feet

N

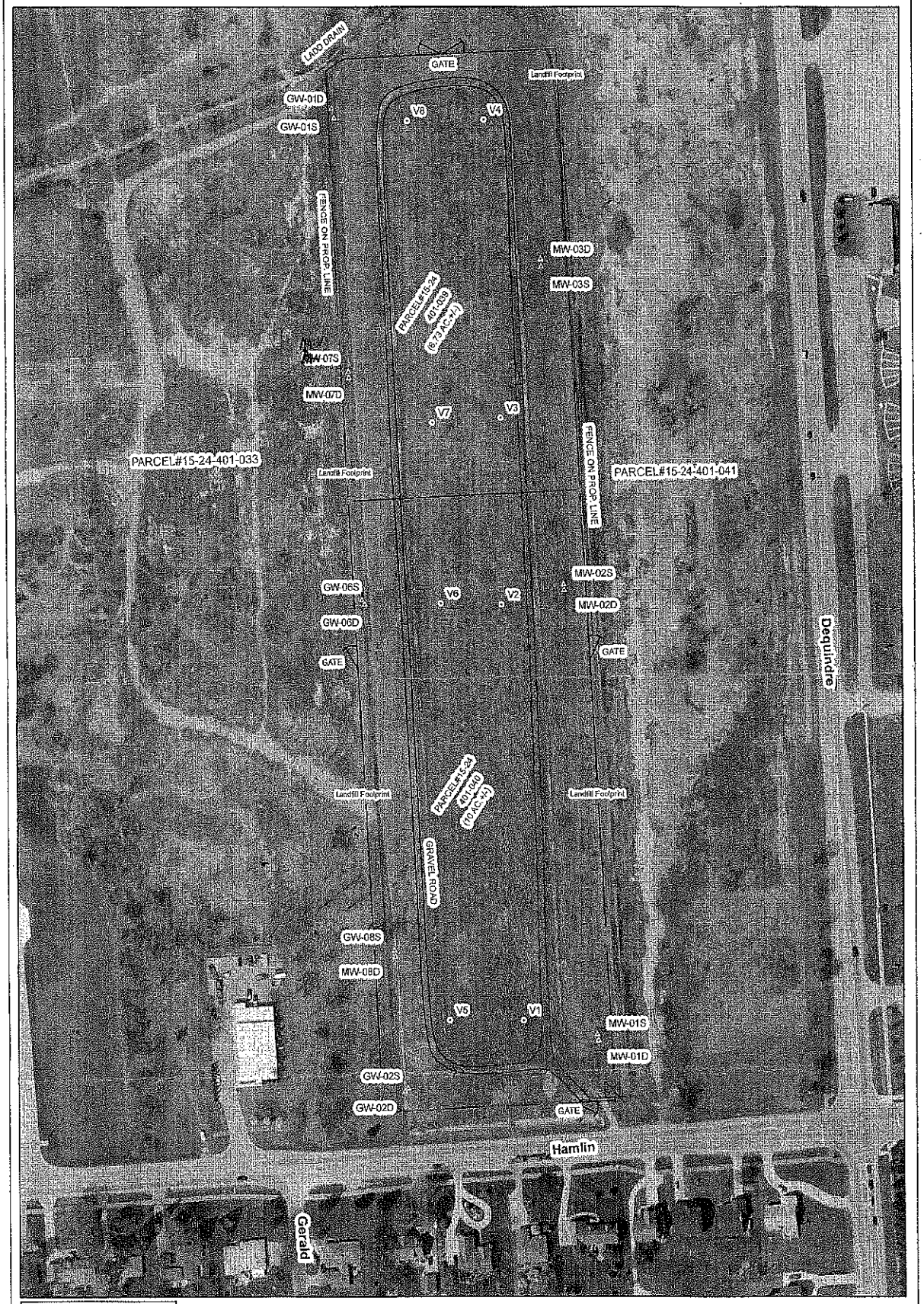
GEOS

RPM: Jeff Gore

Created by Sarah Backhouse
U.S. EPA Region 5 on 8/3/09

FIGURE 2

J & L Landfill



Legend

- Permanent Marker
- Gas Vent
- Monitoring Wells
- Survey Lines

0 50 100 200 300 400 Feet

N W E S

Compiled by Lee L. Steiner-Zellender
January 2014
Projected Coordinate System:
Michigan GeoRef, NAD-83, meters
Completed with ESRI ArcView 10.1
Sources: Michigan Geographic Library
RS&GIS 2010 Aerial & GPS/CADD Data

FIGURE 3