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FIFTH FIVE-YEAR REVIEW REPORT FOR MARION (BRAGG) DUMP SUPERFUND SITE GRANT COUNTY, INDIANA

Prepared by

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

9/4/2020

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Signed by: DOUGLAS BALLOTTI

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LIST OF ABBREVIATIONS & ACRONYMS

µg/L	micrograms per liter
AAC	Acute Aquatic Criteria
CAC	Chronic Aquatic Criteria
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminant of Concern
COD	Chemical Oxygen Demand
CR	Cancer Risk
CRQL	Contract Required Quantitation Limit
DL	Detection Limit
EPA	United States Environmental Protection Agency
ERC	Environmental Restrictive Covenant
FYR	Five-Year Review
HHC	Human Health Criteria
IC	Institutional Control
ICIAP	Institutional Control Implementation and Assurance Plan
IDEM	Indiana Department of Environmental Management
ISBH	Indiana State Board of Health
LTS	Long-Term Stewardship
LOQ	Limit of Quantitation
MCL	Maximum Contaminant Level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operations and Maintenance
OU	Operable Unit
PFAS	Per- and polyfluoroalkyl substances
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RI	Remedial Investigation
ROD	Record of Decision
RSL	Regional Screening Level
RPM	Remedial Project Manager
Site	Marion (Bragg) Dump Superfund Site
SL	Screening Level
TAL	Target Analyte List
TCE	Trichloroethylene
TCL	Target Compound List
TSS	Total Suspended Solids
UU/UE	Unlimited Use and Unrestricted Exposure

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 the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Contingency Plan (NCP) (40 CFR Section 300.430(f)(4)(ii)), and considering EPA policy.

This is the Fifth FYR for the Marion (Bragg) Dump Superfund Site (Site). The triggering action for this statutory review is the signature date of the previous FYR completed on August 12, 2015. The FYR has been prepared due to the fact that 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 three operable units (OUs), all of which are addressed in this FYR. OU1 addresses surface soils and on-Site wastes. OU2 addresses groundwater. OU3 addresses the on-Site pond.

The Marion (Bragg) Dump Superfund Site FYR was led by Viral Patel, the EPA Region 5 Remedial Project Manager (RPM). Participants included Janet Pope, EPA Region 5 Site Community Involvement Coordinator, and Resa Ramsey, the Indiana Department of Environmental Management (IDEM) project manager. The potentially responsible parties (PRPs) were notified of the initiation of the FYR. The review began on August 13, 2019.

Site Background

The 72-acre Site is a former waste disposal facility located immediately outside the southeastern city limits of Marion, Indiana, as depicted in Appendix B. The total acreage consists of the approximately 70-acre Marion/Bragg Landfill property and a 2-acre property located at the southwest corner of the Site ("2-acre property"). A 15-acre on-Site pond is in the center of the Marion/Bragg Landfill property. Capped landfill wastes span approximately 45 acres of the Marion/Bragg Landfill property and range in thickness from 0 to 32 feet. The Site is bordered by a cemetery to the west, a large off-Site pond situated on private property to the south, and by the Mississinewa River to the north and to the east. The Site stratigraphy consists of an upper unconfined aquifer, a lower confined aquifer, and a continuous glacial till confining layer that separates the upper aquifer from the lower aquifer. Contaminated groundwater in the upper aquifer discharges to the Mississinewa River on either side of the River. Contaminated groundwater in the upper aquifer may flow under a small part of the cemetery property prior to discharge to the Mississinewa River. Lugar Creek enters the Mississinewa River on the bank opposite the Site approximately 200 feet north of the southern property boundary. The northern portion of the Site is within the 100-year flood plain of the Mississinewa River.

The Site is in an area of properties zoned for residential, light commercial/transitional and heavy industrial uses by the city of Marion. The Marion/Bragg Landfill property is zoned for heavy industrial use, the cemetery is zoned for light commercial/transitional use, and the private property south of the Site is zoned for heavy industrial use. Approximately 20 residential properties are within a 1000-foot radius of the Site. These are situated north of the Site on the opposite bank of the Mississinewa River.

The Marion/Bragg Landfill property is currently used privately for recreational boating and fishing in the on-Site pond by the current property owner, but is otherwise vacant. The owner of the 2-acre property currently operates a construction business on the property. A private well is located on the 2-acre property ("2-acre property private well") which is used by the property owner for non-potable purposes. In total, three upper aquifer private wells were previously located within the Site boundary, upgradient of the landfill material. Of these, only the 2-acre property private well remains.

Past practices at the former waste disposal facility resulted in the release of hazardous substances, pollutants and contaminants to the environment. The Site was formerly used as a sand and gravel quarry from 1935 until approximately 1961. From 1949 through 1970, Radio Corporation of America leased and used portions of the Site for industrial refuse disposal. From 1957 to 1975, Bragg Construction leased a separate portion of the Site, which it operated as a sanitary landfill under a special use permit. Periodic inspections by the Indiana State Board of Health (ISBH) indicated that operations at the dump were continually conducted in an unacceptable manner. ISBH specifically noted the disposal of hazardous or prohibited wastes including acetone, plasticizers, lacquer thinners, and enamels. The Site was listed on the National Priorities List (NPL) in September 1983.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Marion (Bragg) Dump		
EPA ID: IND980794366		
Region: 5	**State:** IN	**City/County:** Marion/Grant
SITE STATUS		
NPL Status: Final		
Multiple OUs? Yes	**Has the Site achieved construction completion?** Yes	
REVIEW STATUS		
Lead agency: EPA ***[If "Other Federal Agency", enter Agency name]*:**		
Author name (Federal or State Project Manager): Viral Patel		
Author affiliation: EPA Region 5		
Review period: 8/13/2019 – 5/15/2020		
Date of Site inspection: 9/5/2019		
Type of review: Statutory		
Review number: 5		
Triggering action date: 8/12/2015		
Due date *(five years after triggering action date)*: 8/12/2020		

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

A Remedial Investigation (RI) was conducted to determine the nature and extent of contamination. The Public Health Evaluation in the RI assessed health risks and hazards presented to current and potential future users through exposure to contaminated media at or from the Site. Table 1 below provides a summary of the primary contaminants of concern (COCs) by media type for the Site and the exposure pathways that positively presented carcinogenic risks to human health for current or future users and that served as a basis for taking action.

Table 1: Summary of COCs by Media Type for the Site and the Primary Exposure Pathways that Present Human Health Risks (Camp, Dresser, & McKee, Inc.)

Medium	Receptor	Exposure Pathway	COCs
Soils – Surface Soils	Current recreational user	Incidental ingestion, dermal absorption	Polyaromatic hydrocarbons
Soils – Leachate Seep Area	Current recreational user	Incidental ingestion, dermal absorption	Arsenic
On-Site upper aquifer groundwater	Future recreational user	Ingestion	Arsenic

Potential for contaminant migration also served as a basis for taking action. Landfill wastes presented a potential for contaminant migration to the on-Site upper aquifer groundwater and to nearby surface water bodies and sediment. (Camp, Dresser, & McKee, Inc.)

Response Actions

EPA selected the remedy for the Site in a September 30, 1987 interim Record of Decision (ROD) for OU1 and issued a September 30, 1997 "No Action" ROD for OU2 and OU3 that was intended to be the final ROD for the Site. The major components of the remedy selected in the 1987 ROD for OU1 were:

1) Regrading and capping of the Site to promote rain runoff, reduce infiltration, eliminate leachate seeps and contaminated seep sediments, and prevent direct contact with contaminated surface soils and exposed waste;
2) Provision and maintenance of flood control measures to protect the portion of the Site which lies within the 100-year flood plain;
3) Construction and maintenance of Site perimeter fencing to protect the landfill cover and restrict access to the Site and the on-Site pond;
4) Abandonment and replacement of three existing private drinking water wells to the deep aquifer instead for water users who drink from the affected aquifer within the Site boundary;
5) Securing of deed restrictions from the land owner to prohibit uses of groundwater or installation

of shallow wells on-Site; and

6) Monitoring of the groundwater to determine the effectiveness of the remedy and additional studies, as necessary, to complete OU2 and OU3.

The 1987 ROD further states that for monitoring, contaminant migration will be assessed through a regular groundwater and surface water monitoring program. Priority pollutant analysis will be conducted on a semiannual basis. Parameters at various locations requiring confirmation will be resampled on the alternate quarter. The existing leachate wells and the off-Site pond will also be sampled occasionally. Should the groundwater results remain relatively consistent over time, monitoring may not need to be as extensive. Further, the additional studies will include fish bioassay work for the on-Site and off-Site ponds and the river. In addition, general toxicity tests will be performed on the river to determine if ammonia or other constituents in the groundwater cause a toxic effect on the aquatic environment.

The remedy was selected in the 1987 ROD to meet the following Remedial Action Objectives (RAOs):

1) Surface Soils (including leachate seeps) and on-Site wastes (landfill contents)
    - Minimize direct contact – minimize risk to public health and environment from direct contact or ingestion of landfill contents, contaminated surface soil, surface leachate seeps or seep sediments;
    - Control migration off-Site and to surface water – minimize and mitigate the overland migration of contaminants from leachate seeps and contaminated surface soils which may flow or be washed off-Site or to the surface water; and
    - Minimize migration to groundwater – minimize the leaching of contaminants from contaminated soils and landfill contents into the groundwater to adequately protect the surface water receptors.

2) Groundwater
    - Minimize direct contaminant consumption – minimize possible future risk to public health from direct consumption of contaminated groundwater; and
    - Control migration to surface water – manage migration of contaminated groundwater to the on-Site pond and the Mississinewa River to provide adequate protection of surface water quality and aquatic life habitats, and the human ingestion of aquatic organisms.

3) On-Site Pond and Sediments
    - Minimize direct contact – minimize the human exposure potential to the on-Site pond from swimming and ingestion of aquatic organisms.

The 1997 ROD addressed OU2 – groundwater and OU3 – on-Site pond. RAOs were not specifically identified in the 1997 ROD, as “No Action” was selected for OUs 2 and 3. Although the 1997 ROD states that “No Action” has been selected as the remedy for OUs 2 and 3, the 1997 ROD clarifies that this actually means that no additional remedies will be carried out at the Site. The 1997 ROD determined that the groundwater at the Site posed no current or future risk to human health or the environment because at the time of the 1997 ROD: 1) contaminant levels had been low over most of the plume and were generally decreasing; 2) Site-related contaminants had not materially affected the concentrations in the adjacent Mississinewa River; 3) applicable water quality criteria had not been reported as having

been exceeded within the past two years in the on-Site pond or the large off-Site pond; 4) there were no current users of the groundwater at the Site or in the northeast corner of the cemetery to the west; and, 5) future use of the groundwater at the Site was precluded by the conditions at the Site and by existing institutional controls (ICs), and future use of groundwater in the northeast corner of the cemetery to the west was unlikely because of its location. Also, an IC was being sought to prevent the use of this groundwater.

Further, the 1997 ROD stated: "monitoring of the groundwater, river water, and the on-Site pond will continue for an indefinite period in accordance with the requirements contained in the 1991 Consent Decree, which are based upon the 1987 ROD. The monitoring will be extensive enough and will continue long enough to ensure that contamination from the wastes does not become a detriment to the river or the on-Site pond." However, the 1991 Consent Decree (CD) further clarified that monitoring was to be conducted "for at least 30 years after the construction of the cap is complete, unless it can be demonstrated to the U.S. EPA's satisfaction that further monitoring is not necessary."

Groundwater and surface water cleanup levels were not specifically identified in the 1997 ROD. Instead, results of groundwater and surface water sampling are compared to applicable state and federal groundwater and surface water criteria per the 1989 Remedial Action Plan, Appendix B to the 1991 CD. The criteria used for this FYR period are provided as Appendix G.

Status of Implementation

The remedies selected in the 1987 ROD have been implemented under the April 1991 Consent Decree (CD) between EPA and the PRPs. In August 1987, special notice letters were issued to those parties that EPA had determined were PRPs. In the settlement, six of the named PRPs agreed to design and construct the remedy and conduct the investigations and monitoring. The city of Marion agreed to maintain the Site.

The Remedial Design for OU1 began in November 1988, and the Remedial Action for OU1 was initiated in October 1989 and completed in October 1991. Common fill (consisting of soil, rock, pit run gravel, and on-Site masonry rubble, concrete rubble, or other material capable of being compacted into a compact mass) was placed on the waste disposal area to provide for proper surface water run-off and a compacted clay cap was installed in the waste disposal area to prevent contact with the wastes and to minimize infiltration of precipitation. The cap was covered with topsoil, which included matting in areas of possible exposure to 100-year-flood waters, and a vegetative layer was established to minimize erosion. Rip-rap was installed along the southern perimeter of the Site to stabilize the bank and to minimize possible exposure of Site wastes. A perimeter fence was installed to minimize unauthorized access to the Site. Two of three on-Site upper aquifer wells were sealed, and, with EPA concurrence, were not replaced with wells in the lower aquifer, as they were no longer needed. The third well remained in use for non-contact purposes with the concurrence of EPA. Ten new monitoring wells were installed on the Site to continue conducting groundwater monitoring and the old wells were abandoned. Groundwater monitoring and surface water monitoring began in February 1990, and were conducted under the May 1990 Quality Assurance Project Plan, which included the July 1989 Groundwater Monitoring Plan, and the July 1989 Sampling and Analysis Plan, and which were prepared as a component of the Remedial Design to fulfill the requirements of the 1987 ROD and 1991 CD. The remedy for OU2 and OU3 required no additional construction activities. IC implementation is discussed in further detail below.

Institutional Controls

ICs in the form of restrictive covenants were required by the 1987 and 1997 RODs to restrict property use, maintain the integrity of the remedy, and ensure the long-term protectiveness for areas which do not allow for UU/UE. A summary of the implemented and planned ICs for the Site are listed in Table 2 and further discussed below. A map showing the area to which the ICs apply is included as Appendix E. While this map accurately depicts where ICs apply, it incorrectly identifies an old IC that has since been terminated and replaced, as discussed further in the section of this report titled "Status of Access Restrictions and ICs" below.

Table 2: Summary of Planned and/or 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)
Marion (Bragg) Dump Site (approximately 72 acres, consisting of Marion/Bragg Landfill property and the 2-acre property)	Yes	Yes	See IC Instrument and Map (Appendix D, E)	Prohibit uses that may threaten effectiveness, protectiveness, or integrity of the remedy	"Covenant Running With the Land," between Richard and Ruthadel Yount and the Marion-Bragg Generator Group, recorded on 4/13/1989 with Grant County Recorder; Environmental Restrictive Covenant (ERC) (Planned)
On-Site Pond	Yes	Yes	See IC Instrument and Map (Appendix D, E)	Prohibit uses that may threaten effectiveness, protectiveness, or integrity of the remedy	"Covenant Running With Land", between Richard and Ruthadel Yount and the Marion-Bragg Generator Group, recorded on 4/13/1989 with the Grant County Recorder; Environmental Restrictive Covenant (Planned)
On-Site Groundwater – Exceeds cleanup standards under landfill	Yes	Yes	See IC Instrument and Map (Appendix D, E)	Prohibit groundwater use (except one well, the use of which was limited to Dobson Construction Co. Inc during duration of its tenancy) or installation of shallow groundwater wells	"Covenant Running With Land", between Richard and Ruthadel Yount and the Marion-Bragg Generator Group, recorded on 4/13/1989 with the Grant County Recorder; Environmental Restrictive Covenant (Planned)
Shallow Off-Site Groundwater – On-Site groundwater may flow off-Site under adjacent cemetery (81 acres). (1997 ROD identified that restrictions are to be sought)	Yes	Yes	See IC Instrument and Map (Appendix D, E)	Prohibit any activities that may interfere with the Remedial Action, prohibit installation or use of shallow groundwater wells; prohibit installation of deep groundwater wells unless wells are constructed to prevent the movement of fluids between the upper aquifer and lower aquifer; prohibit activities that may cause any existing contamination to migrate; prohibit granting of easement or rights allowing any actions prohibited by the IC	"Environmental Restrictive Covenant" signed by the Marion Cemetery Corporation, recorded on 9/4/19 with the Grant County Recorder

Status of Access Restrictions and ICs:
Two ICs (the 1989 Covenant Running with the Land, and the 2019 ERC) are currently in place on 3 parcels of land:

1) The Marion/Bragg Landfill property;
2) The 2-acre property, which is identified on the Site ICs map as the RJT Properties parcel; and
3) The Estates of Serenity Cemetery parcel located to the west of the landfill property.

In accordance with recommendations in the 2015 FYR, EPA, in consultation with IDEM, completed a review of the ICs and the Institutional Control Implementation and Assurance Plan (ICIAP) titled "Institutional Controls Verification Plan," which was submitted to EPA on September 29, 2011. This review was completed on January 5, 2016, as documented in a letter to the six PRPs, requesting modifications to the ICIAP. The chief concern noted in the review was that it is necessary to prepare and record new ICs, because the existing ICs at the time did not satisfy the statutory requirements of Indiana Code §§ 13-11-2-193.5(1) and 13-14-2-6(5). Indiana Code §§ 13-14-2-6(5) provides authorities to the IDEM commissioner to proceed in court, by appropriate action, to enforce a restrictive covenant as defined by Indiana Code §§ 13-11-2-193.5(1). Indiana Code §§ 13-11-2-193.5(1) defines "restrictive covenant" as "with respect to land, any deed restriction, restrictive covenant, environmental covenant, environmental notice, or other restriction or obligation that… explains how it can be modified or terminated." The existing ICs at the time did not explain how the restrictions could be modified or terminated. As such, the existing ICs at the time were arguably not directly enforceable by EPA and IDEM and might only be directly enforceable by the six PRPs. Preparation and recording of new ICs are in progress, and the statuses of individual IC documents are discussed below.

2019 Environmental Restrictive Covenant

The 1998 Environmental Protection Agreement Restricting Use of Groundwater was terminated on September 4, 2019, after preparation of a new ERC that addressed the chief deficiencies noted in the January 5, 2016 letter. The Termination of the 1998 Environmental Protection Agreement Restricting Use of Groundwater was recorded with errors which do not affect the protectiveness of the new ERC, but which should be corrected for clarity of the property chain of title (see "Other Findings" Section in this FYR). The new ERC signed by the Marion Cemetery Corporation was recorded on September 4, 2019 with the Grant County Recorder.

1989 Covenant Running with the Land

EPA and IDEM are in the process of preparing and implementing the remaining new ERCs necessary to replace the 1989 Covenant Running with the Land to address the chief deficiency noted in the January 5, 2016 EPA letter documenting the results of the IC and ICIAP review. Recording of the Marion/Bragg Landfill parcel ERC is on hold pending a decision regarding the need to implement a new ERC on the property formerly leased by the Dobson Construction Co., identified as the RJT Properties parcel on the ICs map, and referred to herein as the 2-acre property.

The Dobson Construction Company, Inc. were the tenants of the 2-acre property at the time of the recording of the 1989 Covenant Running with the Land. The 2015 FYR determined that the Dobson Construction Company, Inc. were no longer the tenants of the 2-acre property, but that the 2-acre property private well was still in use by the current property owner for non-potable and industrial

(construction-related) purposes. While this use is inconsistent with the use restriction of the IC on that parcel, the current uses are not resulting in unacceptable exposures.

EPA recommended that, consistent with the recommendation in the 2015 FYR, the well should be sampled quarterly for two years, and that the results would be used to evaluate whether the IC can be removed or revised to require appropriate groundwater use restrictions. EPA recommended including the well in the 5th quarterly water quality monitoring event after completion of two years of sampling. The status of this recommendation is discussed further in Table 4, below.

Implementation of the new ERC on the 2-acre property and/or the Marion/Bragg Landfill parcel requires concurrent termination of the existing 1989 Covenant Running with the Land to maintain clarity of the property chain of title. As both parcels are currently addressed by the 1989 Covenant Running with the Land, termination of the 1989 Agreement to record the Marion/Bragg Landfill ERC without first determining if an ERC is necessary on the 2-acre property would leave the 2-acre property without restrictions when these restrictions may in fact be necessary. This determination is to be based in part on full review of the 2-acre property private well monitoring reports, discussed in the section below entitled "Data Review," subsection "2-acre Property Private Well Monitoring Effort."

Current Compliance:

At this time, the ICs appear to be functioning as intended since the property is not being used in a manner which is materially inconsistent with the use restrictions required by the Site RODs. During the 2020 FYR Site Inspection, no activities or land uses were observed on the Marion/Bragg Landfill property nor on the 2-acre property which may interfere with the protectiveness, effectiveness or integrity of the remedy.

Although the private well located on the 2-acre property is technically inconsistent with 1989 Covenant Running with the Land, the reported current industrial use of this well does not affect the protectiveness, effectiveness, or integrity of the remedy. Preliminary review of the sampling results from the 2-acre property private well monitoring effort, discussed in the section below titled "Data Review," demonstrates that the current use of the well for industrial purposes does not pose a risk to human health or the environment.

The cemetery property was not specifically inspected during the 2020 FYR Site Inspection, as a new ERC reaffirming the land use restrictions had been recorded the day prior to the 2020 FYR Site Inspection. Nonetheless, EPA anticipates inspecting this property during the next annual Site inspection to confirm this through direct observation (see "Other Findings" Section in this FYR).

IC Follow up Actions Needed:

IC follow-up actions needed for the Site are summarized as follows:

1) Prepare and implement remaining new ERCs, as necessary, and concurrently terminate the 1989 Covenant Running with the Land;
2) Confirm that no groundwater use wells have been installed on the northern portion of the cemetery property through direct observation during the EPA's next annual visit to the Site; and

3) Complete revisions to the 2011 ICIAP, including updates to IC maps that accurately depict ICs developed and in place and any revisions necessary to incorporate new ERCs; ICIAP revisions will also include procedures to ensure Long Term Stewardship (LTS) of ICs such as regular inspection of the engineering controls and access controls at the Site and regular review of the ICs at the Site. The ICIAP will also include a requirement for annual ICs reports with review and certification by the PRPs to EPA that ICs are in place and effective. Finally, development of a communications plan and use of the State's one-call system will be explored.

Systems Operations/Operation & Maintenance

Operations and Maintenance (O&M) of the remedy are conducted in accordance with the 1991 CD and the Operation and Maintenance Plan, dated December 1992, as modified by subsequent EPA-approved changes to the sampling program[1]. The city of Marion and the six PRPs are responsible for gathering the necessary information from the appropriate sources and generating reports required by EPA, in consultation with IDEM, to remain in compliance.

Per the 1991 CD, the city of Marion is responsible for O&M of the constructed elements of the remedy, except for maintenance of the monitoring wells, for which the six PRPs are responsible. The city of Marion is required to inspect and maintain the perimeter fence, warning signs, gates and locks, and cap system, and to inspect well casings, well locks, and concrete pads. The city of Marion submits an annual report summarizing the O&M activities completed to maintain the constructed elements of the remedy through the course of the previous year. Maintenance activities conducted by the city of Marion during this FYR period generally consisted of: Site inspections, landfill mowing, weed spraying, trimming, and general cleanup, lock maintenance, maintenance of the Site fencing, and minor cap repairs. O&M of the Site by the city of Marion and O&M of the monitoring wells by the six PRPs has been handled satisfactorily as confirmed by the Site Inspection, documented in the section titled Site Inspection, and in Appendices H and I of this report.

The six PRPs are responsible for completion of Site water quality conditions monitoring and for maintenance of the monitoring well network. Site water quality conditions monitoring consists of groundwater and surface water monitoring events conducted every 5th quarter, and a more comprehensive five-year sampling event conducted in advance of and in support of the FYR. The six PRPs submit a monitoring report for each of the 5th quarterly and five-year review monitoring events. Groundwater and surface water sampling activities conducted by the six PRPs during the FYR period included 5th quarterly monitoring events completed in 2016, 2017, 2018, and the five-year review monitoring event completed in 2019. Requirements specific to each monitoring event type, including sampling locations and parameters for analysis, are discussed in the "Data Review" Section, below.

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.

[1] In 1998 and 2003, EPA determined that it was appropriate to reduce or no longer require sampling for some of the parameters and/or locations pursued under the monitoring program identified in the 1997 ROD.

Table 3: Protectiveness Determinations/Statements from the 2015 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1, 2, 3, & Sitewide	Short-term Protective	The remedy currently protects human health and the environment because exposure pathways that could result in unacceptable risks are being controlled. The existing Site use is consistent with the RAOs set forth in both RODs. The implemented remedial actions at the Marion (Bragg) Dump Site are functioning as intended. All immediate threats at the Site have been addressed through capping of the waste material, monitoring, and perimeter fencing. However, in order for the remedy to be protective in the long-term, the following actions need to be taken to ensure protectiveness: complete the ICs review and implement any needed ICs; finalize and implement the ICIAP including development of a LTS Plan; and sample the private well on the southwest corner of the Site quarterly for two years, determine whether ICs should be removed or revised, then include in the well in the 5th quarter water quality monitoring event. Long-term protectiveness requires maintenance of the cover and compliance with land use restrictions that prohibit interference with the cap, restrict the Site to limited commercial/industrial uses and prohibit use of the groundwater. Compliance with ICs will be accomplished by planning for LTS which includes maintaining, monitoring and enforcing effective ICs as well as maintaining the Site remedy components.

Table 4: Status of Recommendations from the 2015 FYR

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
1, 2, 3	The ICIAP has not been fully evaluated. A review of the ICIAP is needed to ensure that effective ICs have been implemented, and the ensure effective procedures are in place for LTS at the Site. A LTS Plan is needed to ensure effective ICs are maintained, monitored and enforced.	The ICIAP will be reviewed and modified to address: evaluation of existing ICs, whether additional ICs are needed, implementation of any additional needed ICs, development of IC maps, and preparation and implementation of a LTS Plan.	Addressed in Next FYR	Review of the ICIAP and ICs was completed on January 5, 2016. The review chiefly identified the need to replace the existing ICs with updated ERCs. Of the two pre-existing ICs, one of the existing ICs has been successfully terminated and replaced with a new ERC. Termination and replacement of the remaining IC is on hold pending a decision regarding the need to implement a new ERC on the 2-acre property. Following completion of this task, EPA anticipates moving forward with preparing and recording the necessary new ERCs, and revision of the ICIAP for LTS, including development of updated IC maps. This issue/recommendation has been replaced with a new issue/recommendation addressing the revision of the ICIAP which will include LTS procedures and an updated ICs map.	NA
1, 2, 3	A review of the ICs is needed to both ensure that all needed ICs are in place and that they are effective and enforceable.	Conduct an ICs evaluation at the Site, including a review of existing ICs, modify or replace ICs to ensure they are consistent with current State law, determine whether any additional ICs are needed, and implement any additional ICs needed	Addressed in Next FYR	Review of ICs was completed on January 5, 2016. The review resulted in the need to replace two existing ICs with updated ERCs. Of the two existing ICs, one IC has been successfully terminated and replaced with a new ERC. Termination and replacement of the remaining IC is on hold pending a decision regarding the need to implement a new ERC on the 2-acre property. This issue/recommendation has been replaced by a new issue/recommendation to implement the remaining ICs.	NA

Table 4 (continued): Status of Recommendations from 2015 FYR

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
1, 2, 3	The private well on the southwest corner of the Site is being used by the current owner, which may be inconsistent with the IC for this parcel. The well was sampled on May 20, 2015, and none of the COCs exceeded MCLs.	The well should be sampled quarterly for two years. The results will be used to evaluate whether ICs can be removed or revised to require appropriate groundwater use restrictions. After two years, include the well in the 5th quarter water quality monitoring event.	Addressed in Next FYR	Eight quarters of monitoring were completed on 12/12/2017. Evaluation of whether ICs can be removed or revised, and whether 5th quarterly water quality monitoring is necessary, are ongoing and will be based, in part, on full technical review of the data from the 2-acre property private well monitoring effort. See section below entitled "Data Review," subsection "2-acre Property Private Well Monitoring Effort," for further discussion. This issue/recommendation has been replaced by two new issues/recommendations to complete a full technical review of the 2-acre property private well monitoring reports; and to determine whether the existing IC can be removed or should be replaced with a new ERC, and if the well should be monitored on a periodic basis.	NA

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

A public notice, provided herein as Appendix J, was made available by a local newspaper ad in the *Marion, Indiana Chronicle-Tribune* on 12/20/2019, stating that there was a FYR and inviting the public to submit any comments to EPA. No comments were received by EPA during the FYR period. The results of the review and the report will be made available at the Site information repository located at the Marion Public Library, 600 S. Washington St., Marion, Indiana and online at: http://www.epa.gov/superfund/marion-bragg-dump.

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date**.** The results of these interviews are summarized below.

Phone interviews were conducted with Mr. Walter Peter Burton, of O&M Inc, the O&M consultant for the six PRPs; Ms. Robin Shrader, the Assistant Director for Operations at Marion Utilities, overseeing O&M of the Site for the city of Marion; and the current Marion/Bragg Landfill property owner.

Interviewees were asked for any observations that may affect the integrity of the remedy, for issues with Site access or implementation of O&M, and for any other unusual situations or problems encountered at the Site. Interviewees did not note any significant issues regarding the integrity of the remedy. Interviewees did not note any major issues regarding the implementation of O&M of the Site, other than minor issues routinely addressed at the Site reported by Ms. Shrader, such as periodic fence line repair. Interviewees did not note any major issues with Site access. Ms. Shrader reported that on a couple of occasions, the Site gate has been left unlocked by the property owner. Mr. Burton reported that the Site property owner reported to him that trespassing and vandalism had occurred in May 2020. Mr. Burton reported that he was told that the trespassers cut the Site fence but that the city of Marion had repaired the damaged Site fence within a week after the Site property owner had reported the issue to Mr. Burton. This was confirmed with the Site property owner.

Data Review

During this FYR period, two major monitoring efforts were conducted: (1) Site water quality conditions monitoring and (2) 2-acre property private well monitoring. Data from each of these events, excluding discussion regarding 1,4-dioxane detections, is discussed in the event-specific sections below. A third section discusses results for both events specific to 1,4-dioxane.

Site Water Quality Conditions Monitoring

During this FYR, the Site water quality conditions monitoring data were reviewed to determine protectiveness of the remedy. The purpose of this monitoring is to ensure that actual and potential groundwater discharges to surface water bodies are protective of human health and the environment and do not become a detriment to the river or on-Site pond. This is determined using two lines of evidence. First, this is determined by comparison of surface water sampling data to applicable state and federal criteria (Maximum Contaminant Levels (MCLs), Acute Aquatic Criteria (AAC), Chronic Aquatic Criteria (CAC), and Human Health Criteria (HHC)), which are provided in Appendix G to this report.

Second, this is determined by comparison of on-Site groundwater sampling data to these criteria after application of a mixing equation which accounts for the effect of mixing of potential groundwater discharges with surface water in the Mississinewa River under low-flow conditions. The Site is sampled every 5th quarter, with the sampling event preceding the FYR required to include some additional parameters and/or locations.

Monitoring Locations

The current monitoring locations consist of on-Site monitoring wells (MB 1-10), three off-Site monitoring wells (MW 9-11), the on-Site pond location (PW-1), two locations on the Mississinewa River (one upstream (SW-5) and one downstream (SW-1)), and one location at Lugar Creek (SW-6). A map showing the sampling locations is included in Appendix F.

Description of the 2019 FYR Monitoring Event

The 2019 FYR Monitoring Event was completed in October 2019. Water level data and field parameters (temperature, pH, specific conductance, and dissolved oxygen) were collected at all on-Site monitoring wells (MB 1-10), all off-Site monitoring wells (MW 9-11) and all surface water locations (SW 1, 5, 6; PW 1). Analytical samples were taken from select on-Site monitoring wells (MB 1-3, MB 5-10), select off-Site monitoring wells (MW 9-10) and surface water locations (SW 1, 5, 6; PW 1). Project-specific indicator parameters (Total Suspended Solids (TSS), ammonia-nitrogen, Chemical Oxygen Demand (COD), and chlorides) were also analyzed at all on-Site monitoring wells and surface water locations where samples were collected. The on-Site monitoring well samples and surface water samples were analyzed for Target Compound List (TCL) volatiles and semi-volatiles, and for Target Analyte List (TAL) metals (dissolved). The off-Site monitoring wells were analyzed for TCL volatiles and semi-volatiles.

Description of the 5th Quarterly Monitoring Requirements

Three 5th quarterly monitoring events, in 2016, 2017, and 2018, were completed during the FYR period. During 5th quarterly monitoring events, water level data and field parameters (temperature, pH, specific conductance, and dissolved oxygen) are collected at all on-Site monitoring wells (MB 1-10), all off-Site monitoring wells (MW 9-11) and all surface water locations (SW 1, 5, 6; PW 1).

Project-specific indicator parameters (TSS, ammonia-nitrogen, COD, and chlorides) are collected at select on-Site monitoring wells (MB 1-2, MB 5-10), and all surface water locations (SW 1, 5, 6; PW 1). Samples taken from these select monitoring wells are analyzed for TAL metals (dissolved). Samples taken from MB 8 are also analyzed for TCL semi-volatiles. Samples taken from MB 1 - 2 are also analyzed for TCL volatiles and semi-volatiles.

Results of the 2019 FYR Monitoring Event and the 5th Quarterly Monitoring Events:

- Groundwater Monitoring Well Results

A review of the 2016, 2017, 2018, and 2019 *Marion (Bragg) Landfill Water Quality Conditions Reports* shows that for most of the wells, the majority of sampling parameters were below the applicable criteria (MCLs, AAC, CAC, and HHC) in on-Site and off-Site groundwater monitoring wells. MCLs for

arsenic, trichloroethene, and the secondary MCL and the AAC for iron were exceeded at the on-Site wells listed in Table 5, below.

Table 5: Exceedances of MCLs, AAC, CAC, and/or HHC in Groundwater in on-Site wells

Parameter	Trichloroethene (TCE)				Arsenic				Iron			
Limit	MCL: 5µg/L AAC: 45000µg/L CAC: 21900µg/L HHC: 807µg/L				MCL: 10µg/L AAC: 360µg/L CAC: 190µg/L HHC: 0.175				Secondary MCL: 300 µg/L AAC: 1000 µg/L CAC: -- HHC: --			
Well #/Year	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
MB 1	7.1 / 7.1*	7 / 7.1	7.8 / 7.8	6 / 5.1	X / X	X / X	X / X	X / X	X / X	X / X	X / X	X / X
MB 2	X	X	X	X	27.7	19.5	41	32.7	13900	6900	16400	16800
MB 3	O	O	O	X	O	O	O	25.1	O	O	O	12600
MB 5	O	O	O	X	17.8	20.3	33.7	28.3	5360	7050	7740	10100
MB 6	O	O	O	X	88.1	102	99.3	66.3	23500	24600	22200	15300
MB 7	O	O	O	X	40.8	51	54.1	75	4910	7970	6710	9280
MB 8	O	O	O	X	102	122	105	93	12600	18000	12400	6210
MB 9	O	O	O	X	10.6	10.1	14.2	11.9	2470	2320	1900	2180
MB 10	O	O	O	X	X	X	X	X	X	X	X	X
*results from duplicate sample are provided after the forward slash; -- = criteria not developed; x = below criteria; o = not sampled/analyzed												

The 1991 CD and 1997 ROD require that a mixing calculation be applied to contaminant concentrations measured at on-Site wells that exceed the applicable criteria (MCLs, AAC, CAC, and HHC) to determine if those parameters whose concentrations exceeded criteria on-Site could potentially impact the off-Site water quality in the adjacent river.[2] Contaminant concentrations have not exceeded the applicable MCLs, AACs, CACs, or HHC for this FYR period after application of the mixing equation. Therefore, it is unlikely that groundwater discharge to surface water at these concentrations impacts the Mississinewa River water quality at levels that could pose a risk to human health or the environment.

- Pond Water Results

A review of the 2019 *Marion (Bragg) Landfill Water Quality Conditions Report* shows that concentrations of TCL volatiles and semi-volatiles and TAL metals (dissolved), and concentrations of indicator parameters for ammonia and chloride, did not exceed the applicable criteria (MCLs, AAC, CAC, and HHC) at PW 1. A review of the 2016, 2017, and 2018 *Marion (Bragg) Landfill Water Quality Conditions Reports* shows that indicator parameters did not exceed the applicable criteria for ammonia (AAC and CAC) or chloride at PW 1.

- Mississinewa River Results

A review of the 2019 *Marion (Bragg) Landfill Water Quality Conditions Report* shows that concentrations of TCL volatiles and semi-volatiles and TAL metals (dissolved), and concentrations of indicator parameters for ammonia and chloride, did not exceed the applicable criteria (MCLs, AAC, CAC, and HHC) at SW 1, SW 5, or SW 6. Results for TCL volatiles and semi-volatiles were not

[2] The Mixing Zone Calculation Requirement was specified in the 1989 Remedial Action Plan in Appendix B to the 1991 CD.

detected. A review of the 2016, 2017, and 2018 *Marion (Bragg) Landfill Water Quality Conditions Reports* shows that indicator parameters did not exceed the applicable criteria for ammonia or chloride (AAC and CAC) at SW 1, SW 5, or SW 6. The remedy is therefore protective of human health and the environment in the Mississinewa River.

2-Acre Property Private Well Monitoring Effort

Description of the 2-Acre Property Private Well Monitoring Effort

Pursuant to the recommendation in the 2015 FYR Report, the 2-acre property private well was sampled for 8 quarters during the 2020 FYR period. The 2-acre property private well was sampled in the 2nd quarter of 2015 (2Q15), 1st quarter of 2016 (1Q16), 3rd quarter of 2016 (3Q16), 4th quarter of 2016 (4Q16), 1st quarter of 2017 (1Q17), 2nd quarter of 2017 (2Q17), 3rd quarter of 2017 (3Q17), and 4th quarter of 2017 (4Q17).

The well was sampled for project-specific indicator parameters (Total Suspended Solids (TSS), ammonia-nitrogen, Chemical Oxygen Demand (COD), and chlorides), TCL volatiles and semi-volatiles, and TAL metals (dissolved). Field parameters (temperature, pH, specific conductance, and dissolved oxygen) were also collected prior to sampling. The samples were taken at the tap.

Results of the 2-Acre Property Private Well Monitoring Effort

A preliminary review of the 2-acre property private well monitoring reports was completed through the course of this FYR. The reports are draft, pending completion of a full technical review. Based off of preliminary review of the sampling results, analytes detected in the 2-acre property private well through the monitoring effort were: 2-butanone, toluene, arsenic, barium, beryllium, calcium, chromium, copper, magnesium, manganese, nickel, potassium, sodium, and zinc. Of these, arsenic is the only contaminant that is consistently detected in on-Site monitoring wells above applicable state and federal criteria (MCLs, AAC, CAC, and HHC). Arsenic was not detected above its respective MCL in the 2-acre property private well. Indicator parameters detected at least once in the 2-acre property private well were ammonia, chloride, and COD. Sampling results are summarized in Table 6, below.

Table 6: Contaminant detections observed during 2-acre property private well monitoring effort compared to MCLs or EPA's resident tapwater Regional Screening Levels (RSLs), for contaminants for which no MCL is established (µg/L)

Parameter	MCL / RSL (µg/L)	Quarter and Calendar Year of Sampling Event (QQ/YY)							
		2Q15 (µg/L)	1Q16 (µg/L)	3Q16 (µg/L)	4Q16 (µg/L)	1Q17 (µg/L)	2Q17 (µg/L)	3Q17 (µg/L)	4Q17 (µg/L)
VOCs/SVOCs									
2-Butanone	- / 5600	2.1 J	X	X / X*	X / X	X / X	X / X	X / X	X / X
Toluene	1000	0.37 J	X	X / X	X / X	X / X	X / X	X / X	X / X
Metals (Dissolved)									
Arsenic	10	X	X	3.3 J / 2.7 J	X	X / X	X / X	X / X	X / X
Barium	2000	124 J	107 J	130 / 130	123 J	116 J / 116 J	108 J / 103 J	103 J / 111 J	111 J / 111 J
Beryllium	4	X	0.097 J	X / X	X	X / X	X / X	X / X	X / X
Calcium	- / -	125000	115000	130000 / 120000	116000	108000 / 108000	101000/ 96900	101000 / 107000	105000 J / 104000 J
Chromium	100	X	X	X / X	X	X / X	X / X	X / X	1.6 J / 0.94 J
Copper	1300	2.9 J	45.9	11 / 13	38.8	19.1 J / 17.8 J	8.3 J / 7.6 J	15.0 J / 16.7 J	18.9 J / 19.0 J
Magnesium	- / -	35800	33700	38000 / 37000	36100	32300 / 32100	27500 / 26600	29600 / 31500	30600 J / 30400 J
Manganese	- / 430	X	0.47 J	1.1 J / 0.94 J	X	X / X	X / X	X / X	X / X
Nickel	- / -	3.9 J	1.5 J	X / X	12.7 J	X / X	X / X	X / X	X / X
Potassium	- / -	2200 J	X	2700 J / 2600 J	X	2750 J / 2690 J	2600 J / 2420 J	2230 J / 2420 J	2330 J / 2340 J
Sodium	- / -	19200	21300	20000 / 20000	23500	22600 / 22700	23800 / 22600	19300 / 20600	16300 J / 16200 J
Zinc	- / 6000	X	109	17 J / 18 J	66.5	27.2 J / 25.8	12.4 J / 12.8 J	12.1 J / 13.6 J	27.7 J / 19.0 J
Indicator Parameters									
Ammonia-Nitrogen	- / -	70 J	X	X / X	X / X	X / X	X / X	X / X	X / X
Chloride	- / -	80000	29000	37000 / 36000	34000 / 34000	38000 / 38000	37000 / 37000	28000 / 29000	30000 / 30000
COD	- / -	X	14000	X / X	X / X	X / X	8000 J / 8300 J	X / X	X / X

MCL = maximum contaminant level; RSL – Regional Screening Level; µg/L = micrograms per liter; VOCs/SVOCs = volatile organic compounds/semi-volatile organic compounds; J = estimated value; * results from duplicate samples when taken are provided after the forward slash; COD = chemical oxygen demand;

Based off of preliminary review of the sampling reports, there is no unacceptable risk to receptors under the current industrial use scenario, as concentrations of potentially Site-related contaminants have not exceeded MCLs or RSLs, which are set to be protective of a residential drinking water use scenario and are therefore protective of the current industrial uses at the property. A full technical review of detections of Site-related contaminants, groundwater flow patterns, or other information, will determine if an IC restricting use, and/or on-going periodic monitoring or abandonment, plugging, and reinstallation of this well in the lower aquifer is warranted.

1,4-Dioxane Sampling Results

1,4-Dioxane is a likely contaminant at many Sites contaminated with certain chlorinated solvents because of its widespread use as a stabilizer for chlorinated solvents, particularly 1,1,1-trichloroethane. 1,4-dioxane was added as a parameter to the Site water quality conditions monitoring and 2-acre property private well monitoring in 2016 due to the presence of chlorinated solvents in Site groundwater. EPA risk assessments indicate that the drinking water concentration representing a 1×10^{-6} excess lifetime cancer risk level for 1,4-dioxane is 0.35 µg/L, and the current EPA Region 5 tap water screening level is 0.46 µg/L. A Site-specific risk-based screening level for 1,4-dioxane has not been developed. Results specific to each monitoring event type are discussed in more detail, below.

1,4-Dioxane Sampling Results – Site Water Quality Conditions Monitoring

During 5th quarterly monitoring events, only samples from on-Site monitoring wells MB 1, MB 2, and MB 8 were analyzed for 1,4-dioxane. All locations sampled during the 2019 FYR Monitoring Event were analyzed for 1,4-dioxane. 1,4-Dioxane concentrations exceeded the drinking water concentration representing a 1×10^{-6} excess lifetime cancer risk level (0.35 µg/L) and the current EPA Region 5 tap water screening level (0.46 µg/L) at on-Site wells MB 8 and MB 2, as shown in Table 7, below.

Table 7. 1,4-Dioxane sampling results in on-Site wells summary

Parameter	**1,4-Dioxane**			
Limit	**LOQ: 2 µg/L DL: 0.51 µg/L 1 x 10^{-6} CR: 0.35 µg/L Region 5 Tap Water SL: 0.46 µg/L**			
Sample Location / Year	**2016**	**2017**	**2018**	**2019**
MB 2	1.2 J	X	X	X
MB 8	2.8	2.1	1.6 J	7.7
	LOQ = Limit of Quantitation; µg/L = micrograms per liter; DL = Detection Limit; CR = cancer risk; SL = Screening Level; J = estimated value; x = below LOQ or DL			

Based upon the available information, there is no current risk to human receptors via the drinking water ingestion exposure pathway. The drinking water ingestion exposure pathway is incomplete as no drinking water wells are installed on-Site, and ICs are in-place where contaminated groundwater may flow, preventing the installation of drinking water wells in the upper aquifer. Sampling in the Mississinewa River and on-Site pond conducted during the 2019 FYR Monitoring Event did not detect

1,4-dioxane in the surface water bodies, indicating that exposure pathways associated with the surface water bodies do not pose a risk to human health or the environment.

1,4-Dioxane Sampling Results – 2-acre Property Private Well Monitoring Effort

1,4-Dioxane was included as a parameter in seven out of eight of the 2-acre property private well monitoring effort sampling events. 1,4-Dioxane was not included in the 2Q15 2-acre property private well sampling event because it occurred prior to inclusion of 1,4-dioxane in the Site water quality conditions monitoring effort.

The contract-required quantitation limit (CRQL) for the 1Q16 event was set at 100 µg/L and at 2.0 µg/L for the remaining events. Results did not exceed the CRQLs. The CRQLs were not set conservatively enough to determine if 1,4-dioxane results are above the 1×10^{-6} cancer risk level of 0.35 µg/L or above the EPA Region 5 tap water screening level of 0.46 µg/L and below the CRQL. Thus, it is unknown if 1,4-dioxane is present at concentrations which may present a risk via the drinking water exposure pathway; however, the well is not being used for drinking water purposes. The drinking water ingestion exposure pathway therefore is currently incomplete.

Site Inspection

The inspection of the Site was conducted on 9/5/2019. In attendance were Viral Patel of EPA, the lead agency for the Site; Resa Ramsey of IDEM, the support agency for the Site; and Bennie Underwood of de maximus, inc., and Pete Burton of O&M, Inc. representing the project coordinator consultant and the O&M consultant for the six PRPs, respectively. The purpose of the inspection was to assess the protectiveness of the remedy.

The Site inspection did not identify any major issues with the remedy, as noted in Site Inspection Checklist, Appendix H to this report. The landfill cover was well-vegetated. No areas of cracking, subsidence, erosion, mounding, ponding or other damage was observed. Monitoring wells were capped, locked, and in good condition. The fence line and monitoring well bollards were generally in good condition, with the exception of a few areas along the southern fence line where mild damage was observed, and one monitoring well bollard which was down and lying next to the monitoring well. These areas of mild damage are documented in the Site Inspection Photo Documentation Log, Appendix I, and should be addressed (see "Other Findings" Section in this FYR).

V. TECHNICAL ASSESSMENT

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

Question A Summary:

Yes, the remedy is functioning as intended by the decision documents. The remedial action continues to operate and function as designed. Containment of the surface soils and on-Site wastes is effective. During the FYR Site inspection, no major damage to the constructed elements of the remedy were observed. The landfill cover is well-vegetated and no areas of cracking, subsidence, erosion, mounding, ponding or other damage have been observed. A perimeter fence has been installed to minimize unauthorized access to the Site. The fence line is generally in good condition, with the exception of a

few areas along the southern fence line where mild damage has been observed and will be addressed. No uses of the Site that would present a risk to a receptor based on the available information were observed. Groundwater and surface water continue to be monitored at the Site for exceedances of applicable criteria. During the FYR period, while exceedances were observed in on-Site monitoring wells, no exceedances are predicted at the point of exposure in the Mississinewa River based on application of the mixing equation. ICs are currently in place, but EPA and IDEM are in the process of preparing and implementing the new ERCs necessary to replace the 1989 Covenant Running with the Land. Also, revisions are being made to the 2011 ICIAP to include updates to IC maps to accurately depict ICs developed and in place for the Site, and to include procedures for LTS of ICs at the Site. O&M of the remedy continues to be implemented effectively by the six PRPs and the city of Marion.

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?

Question B Summary:

No. Exposure assumptions and cleanup levels may need to be updated based on the information presented below.

Changes in Exposure Pathways

1,4-dioxane has been identified in on-Site groundwater wells during the FYR period, but not in the surface water bodies. A Site-specific screening level should be developed for protection of surface water receptors to compare against 1,4-dioxane concentrations detected in on-Site wells and after application of the mixing equation to ensure that 1,4-dioxane does not present a risk to human health or the environment.

Per- and polyfluoroalkyl substances (PFAS) have not been sampled in on-Site groundwater wells or in on-Site and adjacent surface water bodies. According to EPA's basic information regarding PFAS, they can be found in commercial household products, including stain- and water-repellent fabrics, nonstick products (e.g., Teflon), polishes, waxes, paints, cleaning products, and fire-fighting foams. Further, people can be exposed to PFAS if they are released during biodegradation or disposal of consumer products that contain PFAS. According to the Initial Site Evaluation/Initial Site Inspection, wastes that were historically disposed of at the Site included municipal wastes and industrial wastes, including foundry sand, solidified paint sludges, acetone, plasticizers, lacquer thinners, enamels, cadmium wastes, lead wastes, sewage sludge, and liquid digester sludge. PFAS may be present at the point of exposure in the on-Site pond and the Mississinewa River. PFAS should be added to the Site sampling program to ensure PFAS do not pose a risk to human health or the environment.

During the 2015 FYR, the Region 5 Toxicologist evaluated the results of the 2014 FYR Monitoring Event to determine the potential for the vapor intrusion pathway at the Site. The Region 5 Toxicologist concluded at that time that it was not believed that vapor intrusion was a current or future problem, but that if VOC concentrations begin to rise in the future, an additional vapor intrusion review should be performed. In addition, during the 2020 FYR Site Inspection, no changes to Site conditions which may provide cause to conduct further vapor intrusion studies, such as a new on-Site building, were observed. Mean TCE concentrations are lower for the fifth FYR period than for the fourth FYR period. As TCE concentrations are not rising, an additional vapor intrusion review was not deemed necessary for this FYR.

Changes in Standards and TBCs

Surface water contaminant concentrations and on-Site groundwater contaminant concentrations are compared against MCLs, HHCs, AACs, and CACs to determine if contaminant concentrations in adjacent surface waters pose a risk to human health and the environment. The criteria used for this FYR period are included in Appendix G and have not been updated since 2000. A review for the most up-to-date criteria should be conducted and appropriate revisions should be made for future monitoring events.

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

No additional information has come to light that could question the protectiveness of the remedy. Impacts from climate change or natural disasters have not been noted at the Site.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the Five-Year Review:
None.

Issues and Recommendations Identified in the Five-Year Review:

OU(s): 1, 2, 3	**Issue Category: Institutional Controls**			
	Issue: The existing 1989 IC is not in accordance with updated Indiana Code.			
	Recommendation: Remove and replace the existing IC with new ICs prepared to be in accordance with updated Indiana Code, as necessary.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA/State	8/12/2021

OU(s): 1, 2, 3	**Issue Category: Institutional Controls**			
	Issue: The ICIAP including LTS procedures is not complete and needs to be updated.			
	Recommendation: Revise the ICIAP to address remaining concerns from the January 5, 2016 review, add LTS procedures, including updated IC maps, and revisions necessary due to new ICs.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**

No	Yes	PRP	EPA/State	8/12/2022

OU(s): 2	**Issue Category: Monitoring**			
	Issue: Full technical review of the 2-acre property private well monitoring reports is incomplete.			
	Recommendation: Complete the full technical review of the 2-acre property private well monitoring reports.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA/State	EPA	11/30/2020

OU(s): 2	**Issue Category: Monitoring**			
	Issue: Preliminary review of 2-acre property private well monitoring results indicates that Site-related contaminants have been detected in the well.			
	Recommendation: Based on a full technical review of the 2-acre property private well monitoring reports, determine whether the existing IC can be removed or should be replaced with a new ERC, and if the well should be monitored on a periodic basis or should be abandoned, plugged, and replaced with a well in the lower aquifer.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA/State	EPA	3/31/2021

OU(s): 2, 3	**Issue Category: Monitoring**			
	Issue: Site-specific risk-based criteria have not been established for 1,4-dioxane against which groundwater and surface water concentrations should be compared.			
	Recommendation: Calculate Site-specific risk-based 1,4-dioxane criteria against which groundwater and surface water concentrations will be compared.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA/State	3/31/2021

OU(s): 2, 3	Issue Category: Monitoring			
	Issue: PFAS have not been sampled for at the Site.			
	Recommendation: Sample for PFAS in the next Site water quality conditions monitoring event.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA/State	3/31/2021

OU(s): 2, 3	Issue Category: Monitoring			
	Issue: Standards and criteria against which groundwater and surface water concentrations are compared have not been updated since 2000.			
	Recommendation: Review the standards and criteria against which groundwater and surface water concentrations are compared and revise these standards and criteria as necessary.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA	3/31/2021

OTHER FINDINGS

- The cemetery property was not inspected during the 2020 FYR Site Inspection for confirmation that no shallow-use wells had been installed on the property, as an ERC reaffirming groundwater restrictions had been signed the day prior to the 2020 FYR Site Inspection. Nonetheless, it should be confirmed via direct observation that no wells are present during EPA's next annual Site inspection.
- The Site Inspection identified minor damage to the Site fence and one monitoring well bollard which should be addressed.
- The Termination of the 1998 Environmental Protection Agreement Restricting Use of Groundwater was recorded with errors that do not affect the protectiveness of the new ERC, but should be corrected for clarity of the property chain of title. The September 4, 2019 Termination contained errors in Section II, Paragraph B, and did not include a copy of the replacement ERC as "Exhibit B," as intended. A Corrected Termination of the 1998 Environmental Protection Agreement Restricting Use of Groundwater that accounts for these errors should be recorded.

VII. PROTECTIVENESS STATEMENT

Protectiveness Statement(s)	
Operable Unit:	*Protectiveness Determination:*
1	Short-term Protective

Protectiveness Statement:
The remedy at OU1 currently protects human health and the environment because construction activities are complete, the remedial action objectives have been achieved, operation and maintenance activities are occurring, current Site use does not affect the effectiveness, protectiveness, or integrity of the remedy, and ICs are in-place.

However, in order for the remedy to be protective in the long-term, the following actions need to be taken to ensure protectiveness: remove and replace existing ICs with new ICs prepared to be in accordance with updated Indiana Code, as necessary; and revise the ICIAP to address remaining concerns from the January 5, 2016 review, add LTS procedures, including updated IC maps, and revisions necessary due to new ICs.

Protectiveness Statement(s)	
Operable Unit:	*Protectiveness Determination:*
2	Short-term Protective

Protectiveness Statement:
The remedy at OU2 currently protects human health and the environment because results from on-Site groundwater monitoring conducted during the FYR period have not exceeded the established criteria after application of the mixing equation for groundwater, and the groundwater exposure pathway is not complete.

However, in order to be protective in the long-term, the following actions need to be taken to ensure protectiveness: remove and replace existing ICs with new ICs prepared to be in accordance with updated Indiana Code, as necessary; revise the ICIAP to address remaining concerns from the January 5, 2016 review, add LTS procedures, including updated IC maps, and revisions necessary due to new ICs; complete the full technical review of the 2-acre property private well monitoring reports; based on a full technical review of the 2-acre property private well monitoring reports, determine whether the existing IC can be removed or should be replaced with a new ERC, and if the well should be monitored on a periodic basis or should be abandoned, plugged, and replaced with a well in the lower aquifer; calculate Site-specific risk-based 1,4-dioxane criteria against which groundwater and surface water concentrations will be compared; sample for PFAS in the next Site water quality conditions monitoring event; and review the standards and criteria against which groundwater and surface water concentrations are compared and revise these standards and criteria as necessary.

Protectiveness Statement(s)	
Operable Unit: 3	*Protectiveness Determination:* Short-term Protective

Protectiveness Statement:
The remedy at OU3 is currently protective of human health and the environment. Results from on-Site groundwater monitoring conducted during the FYR period have not exceeded the established standards and criteria for protection of surface water after application of the mixing equation to groundwater concentrations.

However, in order to be protective in the long-term, the following actions need to be taken to ensure protectiveness: remove and replace existing ICs with new ICs prepared to be in accordance with updated Indiana Code, as necessary; revise the ICIAP to address remaining concerns from the January 5, 2016 review, add LTS procedures, including updated IC maps, and revisions necessary due to new ICs; sample for PFAS in the next Site water quality conditions monitoring event; and review the standards and criteria against which groundwater and surface water concentrations are compared and revise these standards and criteria as necessary.

Sitewide Protectiveness Statement
Protectiveness Determination: Short-term Protective

Protectiveness Statement:
The remedy currently protects human health and the environment because exposure pathways that could result in unacceptable risks are being controlled. All immediate threats at the Site have been addressed through capping of the waste material, monitoring, access controls and implementation of effective ICs. The implemented remedial actions at the Marion (Bragg) Dump Site are functioning as intended. The existing Site use is consistent with the RAOs set forth in the 1987 ROD. Groundwater and surface water monitoring has not identified a current risk to human health and the environment.

However, in order to be protective in the long-term, the following actions need to be taken to ensure protectiveness: remove and replace existing ICs with new ICs prepared to be in accordance with updated Indiana Code, as necessary; revise the ICIAP to address remaining concerns from the January 5, 2016 review, add LTS procedures, including updated IC maps, and revisions necessary due to new ICs; complete the full technical review of the 2-acre property private well monitoring reports; determine whether the existing IC can be removed or should be replaced with a new ERC, and if the well should be monitored on a periodic basis; calculate Site-specific risk-based 1,4-dioxane criteria against which groundwater and surface water concentrations will be compared; sample for PFAS in the next Site water quality conditions monitoring event; and review the standards and criteria against which groundwater and surface water concentrations are compared and revise these standards and criteria as necessary.

VIII. NEXT REVIEW

The next FYR report for the Marion (Bragg) Dump Superfund Site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

Adamkus, Valdas, V. *Record of Decision (ROD) (Signed) - Marion Bragg Landfill*. Chicago: U.S. Environmental Protection Agency, 1987. <https://semspub.epa.gov/src/document/05/84689>.

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Karl, Richard C. *Fourth Five Year Review Report (Signed) - 2015*. Chicago: U.S. Environmental Protection Agency, 2015. <https://semspub.epa.gov/src/document/05/494171>.

Marion Cemetery Corportation. "Environmental Restrictive Covenant." Grant County Recorder, 4 September 2019.

Muno, William, E. *Record of Decision (ROD) (Signed) - OU2, OU3 - Marion Bragg Landfill*. Chicago: U.S. Environmental Protection Agency, 1997. <https://semspub.epa.gov/src/document/05/84869>.

O & M Inc. *O&M Inc. - 8/91 Operation and Maintenance Plan (Revised December 1992)*. Chicago: U.S. Environmental Protection Agency, 1992. <https://semspub.epa.gov/src/document/05/84790>.

Shrader, Robin. *2016 Marion Bragg Landfill Report*. Chicago: U.S. Environmental Protection Agency, 2017.

—. *2017 Marion Bragg Landfill Report*. Chicago: U.S. Environmental Protection Agency, 2018.

—. *2018 Marion Bragg Landfill Report*. Chicago: U.S. Environmental Protection Agency, 2019.

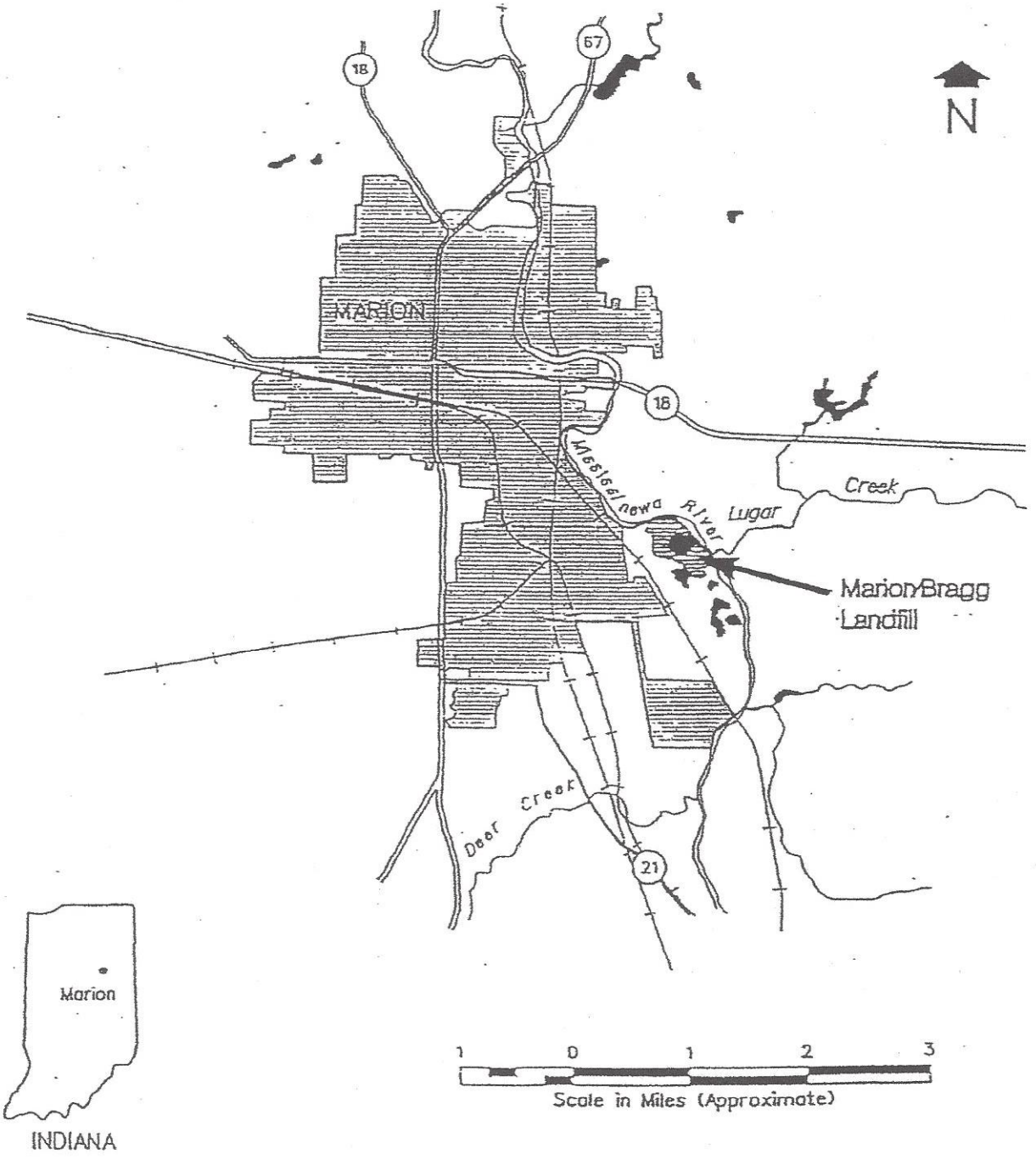
—. *2019 Marion Bragg Landfil Report*. Chicago: U.S. Environmental Protection Agency, 2020.

United States District Court for the Northern District of Indiana, Fort Wayne Division. "United States of America v. Richard Yount, et. al., State of Indiana v. Richard Yount et. al. ." *Consent Decree - Civil Action No. P90-00142*. 1991. <https://semspub.epa.gov/work/05/84776.pdf>.

Yount, Richard Leon, Ruthadel Yount and John N Hanson. "Covenant Running with the Land." Grant County Recorder, 13 April 1989.

APPENDIX B – SITE MAP

Figure 1
Site Location
Marion (Bragg) Landfill



APPENDIX C – SITE CHRONOLOGY

SITE CHRONOLOGY

Table A-1 lists a chronology of events for the Marion (Bragg) Dump Site.

Table A-1

Event	Date
Site Discovery	1975
Listed on NPL	1983
RI/FS Report Complete	1987
1987 ROD Signed	1987
Consent Decree Signed	1991
1997 ROD Signed	1997
First FYR Signed	2000
Second FYR Signed	2005
Third FYR Signed	2010
Fourth FYR Signed	2015
Site-Wide Ready for Anticipate Use	2016

APPENDIX D – SITE ICs

COVENANT RUNNING WITH LAND

This Agreement is made this 24 day of March, 1989 by Richard Leon Yount and Ruthadel Yount and the Marion-Bragg Generator Group (consisting of Dana Corporation, GenCorp, Inc., General Motors Corporation, Owens-Illinois, Inc., RCA Corporation, and Essex Group, Inc.). Richard Leon Yount and Ruthadel Yount are the owners of a seventy-two acre tract of real property located just outside the southeastern boundary of Marion, Indiana (the "Marion-Bragg Site" or the "Site"), described in Exhibit A. The Marion-Bragg Generator Group and Richard Leon Yount and Ruthadel Yount desire to protect the remedial action to be performed at the Site, pursuant to the attached portions of the draft Consent Decree. Accordingly,

1. Richard Leon Yount and Ruthadel Yount hereby bar any use of the Site in any manner that may threaten the effectiveness, protectiveness, or integrity of the work performed under the attached portions of the draft Consent Decree. This includes (but is not limited to) a bar on the use of groundwater at the Site or the installation of shallow wells at the Site, except that Dobson Construction Company, Inc. may continue to use, during the duration of its tenancy, the well drilled on July 25, 1988.

2. This covenant shall run with the land and shall be binding upon all persons who acquire any interest in the Marion-Bragg Site.

3. Any deed, title, or other instrument of conveyance shall contain notice of this covenant.

4. This covenant and the restrictions under it are granted for the benefit of and shall be enforceable by the Marion-Bragg Generator Group, their successors and assigns.

OWNERS

Date: 3-24-89 Richard Leon Yount

State of Indiana) ss

I hereby certify that on this 24th day of March, 1989, before me, a Notary Public, personally appeared Richard Leon Yount and acknowledged this instrument to be his act.

Teresa A. Poe

My Commission expires:

July 24, 1990

Date: 3-24-89 Ruthadel Yount

State of Indiana) ss

I hereby certify that on this 24th day of March, 1989, before me, a Notary Public, personally appeared Ruthadel Yount and acknowledged this instrument to be her act.

Teresa A. Poe

My Commission expires:

July 24, 1990

1183D

CONSENT

Marion-Bragg Generator Group

Date: 3/13/89

John N. Hanson
Counsel

DISTRICT OF COLUMBIA)
ss

I hereby certify that on this 13th day of March, 1989, before me, a Notary Public, personally appeared John N. Hanson and acknowledged this instrument to be his act.

Elizabeth G Downing

My Commission expires:

July 14, 1989

1183D

18901 Warranty Deed

THIS INDENTURE WITNESSETH, That RICHARD LEON YOUNT, over the age of eighteen (18) years

of Grant County in the State of Indiana

Convey and Warrant to RICHARD LEON YOUNT and RUTHADEL YOUNT, husband and wife

of Grant County in the State of Indiana

for and in consideration of One Dollar ($1.00) and other valuable considerations

the receipt whereof is hereby acknowledged, the following Real Estate in the State of Indiana, to-wit:

Grant County

Commencing at a point 6.86 chains South of the Northeast corner of Section 17, Township 24 North, Range 8 East (said point being the point of beginning named in a deed from the Trustees of Mississinewa Lodge No. 96 I.O.O.F. to Enos K. Nebeker, Trustee and recorded in Deed Record No. 63, page 377 of the records of Grant County) then West with the North line of the land described in said deed 10.329 chains to a stone, thence North parallel with the East line of 5th and 6th Additions to the I.O.O.F. Cemetery 12.736 chains to a stone, thence West 3.918 chains to a stone, thence North parallel with the East line of said Additions and 3.167 chains East therefrom 17.127 chains to a stone on the bank of the Mississinewa River, thence up said river with the meanderings thereof to a stake in the North line of the lands described in the aforementioned deed, thence West with the said North line 21.045 chains to the place of beginning, containing 72 acres, more or less, and being 7.085 acres out of the North part of the North East Quarter of said Section 17 and 31.12 acres out of the South East corner of the South East Quarter of Section 8 and 20.2 acres out of the South West Quarter of the South West Fractional Quarter of the North West Quarter of Section 9, and 13.6 acres out of the North West Quarter of Section 16, all in Township 24 North, Range 8 East.

RECEIVED FOR RECORD SEP 20 1979 AT 12 O'CLOCK PM

DULY ENTERED FOR TAXATION SEP 2 1979

IN WITNESS WHEREOF, the said RICHARD LEON YOUNT, over the age of eighteen (18) years

has hereunto set his hand and seal this 19th day of September, 1979.

RICHARD LEON YOUNT (Seal)

(Seal)

(Seal)

STATE OF INDIANA, Grant COUNTY, ss:

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared the within named RICHARD LEON YOUNT, over the age of eighteen (18) years

who acknowledge the execution of the foregoing Deed to be his voluntary act and deed.

WITNESS my hand and Notarial seal this 19th day of September, 1979.

My commission expires August 9, 1980

Robert L. Milford, Notary Public
A Resident of Grant County, Indiana

This instrument was prepared by Robert L. Milford, Attorney at Law

Recorded September 20, 1979 in Deed Micro 79 page 2188 in the Grant County, Indiana, Recorder's Office.

Doc ID: 003554460014 Type: MIS
Recorded: 09/04/2019 at 01:31:07 PM
Fee Amt: $25.00 Page 1 of 14
Grant County Recorder
Kathy D. Foy County Recorder
File 2019-006299

Environmental Restrictive Covenant

THIS ENVIRONMENTAL RESTRICTIVE COVENANT is made this 2nd day of August, 2019, by Marion Cemetery Corporation, of 1506 Bentley St Wabash, IN, 46992 (together with its successors, assignees and heirs, collectively "Owner").

RECITALS

WHEREAS: Owner owns certain real estate in the County of Grant, Indiana, which is listed as property identification numbers 27-07-08-400-019.000-002 and 27-07-17-102-006.000-002 and more particularly described in the attached **Exhibit "A"** ("Real Estate"), which is hereby incorporated and made a part hereof. A map depicting the boundaries of the Real Estate is attached and incorporated herein as **Exhibit "B"**. This Real Estate (along with other real estate that is not subject to this Covenant) was acquired by deed dated April 30, 2001 and recorded on June 6, 2001 in Deed Record I 200106412 in the Office of the Recorder of Grant County, Indiana.

WHEREAS: The Real Estate has been impacted by contamination associated with, and by the remediation of, the Marion (Bragg) Dump Superfund Site ("Site"), which the United States Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on September 8, 1983 at 48 Fed. Reg. 40658, due to the presence of hazardous substances on the Site.

WHEREAS: The Real Estate is a cemetery located to the west and southwest of the Site. The Site was formerly used as a sand and gravel quarry from 1935 until approximately 1961. Radio Corporation of America ("RCA") leased and used portions of the Site for industrial refuse disposal from 1949 through 1970. From 1957 to 1975, Bragg Construction leased and used the Site for a municipal landfill. As a result of these activities, hazardous substances (as defined in Section 101 of CERCLA, 42 U.S.C. 9601, and under Indiana Code 13-11-2-99, hereinafter "Hazardous Substances") were deposited on the Site, and those Hazardous Substances have affected the Real Estate. The EPA selected a remedy that consists of certain response actions for the Site, as well as certain operation and maintenance activities to protect human health and the environment in the Records of Decision ("RODs") issued on September 30, 1987 and September 30, 1997, together known as the "Remedial Action."

WHEREAS: Effective April 24, 1991, the United States of America and the State of Indiana entered into a Consent Decree, in *United States v. Yount*, Civil Action No. F90-00142, United States District Court for the Northern District of Indiana, Fort Wayne Division (the "Consent Decree" or "CD"). The purpose of the Consent Decree was to, among other things, set forth the agreements and undertakings with respect to the Remedial Action to be performed on the Site.

WHEREAS: The Remedial Action for the Site was prepared and implemented in accordance with CERCLA under EPA ID No. IND980794366 and with Title 13 of the Indiana Code and/or other applicable Indiana law relating to the Site under Indiana Department of Environmental Management ("IDEM") No. 7500019. In the September 30, 1987 ROD, EPA identified three operable units ("OUs"), and selected an interim Remedial Action for the on-Site surface soils and wastes (OU 1). The 1987 ROD has been implemented under the April 1991 Consent Decree with Richard Yount; Dana Corporation, DiversiTech General, Inc., General Motors Corporation, Owens-Illinois, Inc., RCA Corporation, and Essex Group, Inc. ("Generator Defendants"); and the City of Marion, Indiana ("City Defendant"). The Remedial Action for the Site included: isolation and containment through construction of a clay cap over the landfill; installation of flood protection measures; establishment of soil/vegetative cover; fencing around the Site perimeter to restrict access to the Site; abandonment and replacement of existing water supply and groundwater monitoring wells; continued groundwater and surface water monitoring; preventing the future use of groundwater from the shallow on-Site aquifer and under the cemetery located to the west of the Site; and implementing institutional controls ("ICs"). In the September 30, 1997 ROD, EPA selected "No Action" for OU 2 (groundwater) and OU 3 (on-Site pond). Under the 1997 ROD remedy, monitoring of the groundwater, the on-Site and large off-Site ponds, and the Mississinewa River will continue in accordance with the requirements of the 1991 CD and the 1987 ROD for OU 1. The 1987 ROD (available in the IDEM Virtual File Cabinet ("VFC") as Document #82606931), the 1997 ROD (VFC #46507703), and the 1991 CD (VFC #53248239) are incorporated herein by reference. These and other related documents may be examined at the U.S. EPA Region V public File Room at 77 W. Jackson Boulevard, Chicago, Illinois 60604 and at IDEM's office, located in the Indiana Government Center North, 100 N. Senate Ave., Indianapolis, Indiana and may be available electronically through the IDEM's Virtual File Cabinet system which, at the time of the execution of this document, can be found at www.IN.gov/idem/.

WHEREAS: The Remedial Action, as concurred with by IDEM, provides that Hazardous Substances will remain on or beneath the Site in the soil and/or groundwater of the Site, and that groundwater from the Site may flow under a small part of the Real Estate. The Remedial Action requires institutional controls in the form of an Environmental Restrictive Covenant as defined under Indiana

Code 13-11-2-193.5 and pursuant to the requirements set out in Indiana Code 13-25-4-24 that must be maintained to ensure the protection of public health, safety and welfare, and the environment. To the extent feasible, the contaminants known to be remaining in the Site groundwater as of the date of this Covenant are in Table 1 attached hereto and incorporated herein as **Exhibit "C".** Specifically, contaminants that were positively identified during the Fourth Five-Year Review sampling event (October 2014; VFC #80044228; incorporated herein by reference) and/or the most recent sampling event (March 2016; VFC #80385272; incorporated herein by reference) as of the recording of this ERC are provided in **Exhibit "C".** More extensive lists of the contaminants that were detected during the remedial investigation of the Site are summarized on Table 1 (Waste Boring Sampling Results) and Table 2 (Groundwater Sampling Results) of the 1987 ROD. Site Reports of Water Quality Conditions may be found in the VFC under the IDEM Site No. 7500019.

NOW, THEREFORE, by this instrument, Owner subjects the Real Estate to the following restrictions and provisions:

I. RESTRICTIONS AND OBLIGATIONS

1. **The Owner**:

   a) Shall prohibit any use of the Real Estate that may interfere with the Remedial Action for the Marion (Bragg) Dump Superfund Site, long-term monitoring, maintenance of soil cover, or measures necessary to ensure the effectiveness and integrity of any response action, or component thereof, selected or undertaken at the Real Estate. Among the prohibited activities are actions that damage or prevent access to any monitoring wells or surface water sampling locations (i.e., on-Site pond, Mississinewa River, or Lugar Creek) for the Site; damage or prevent maintenance of the fence that surrounds the Site; or damage the integrity of the soil cover of the Site.

   b) Shall neither engage in nor allow the installation or use of groundwater wells on the Real Estate into the upper aquifer (i.e., in the sand and gravel outwash deposits above the glacial till deposits) for any non-Remedial Action purpose. There shall be no use of the groundwater from the upper aquifer underlying the Real Estate for any purpose, including, but not limited to: human or animal consumption, gardening, and industrial process or cooling. However, groundwater may be extracted as part of an environmental site investigation and/or remediation.

   c) Shall not engage in nor allow the installation of any wells into the lower aquifer (i.e., the limestone bedrock) at the Real Estate, unless such wells are constructed to prevent the movement of fluids between the upper aquifer and lower aquifer, as certified by an Indiana licensed well driller or an Indiana licensed geologist.

   d) Shall prohibit activities on the Real Estate that cause any existing contamination to migrate, increase the costs of Remedial Action, or otherwise exacerbate the existing contamination located on the Real Estate or adjacent Marion (Bragg) Dump Superfund Site.

   e) Shall grant no easements or other rights allowing the actions prohibited by paragraphs 1. a) through 1. d).

2. Nothing in this Covenant is intended to void, modify or alter in any way the rights and obligations of the City Defendant and Generator Defendants, under the 1991 Consent Decree.

II. GENERAL PROVISIONS

3. **Property Conveyance - Continuance of Provisions**. The Owner shall prevent any conveyance of title, easement, or other interest in the Real Estate from being transferred without adequate and complete provision for compliance with this Covenant and prevention of exposure to Hazardous Substances as described above.

4. **Restrictions to Run with the Land**. The restrictions and other requirements described in this Covenant shall run with the land and be binding upon the Owner of the Real Estate and the Owner's successors, assignees, heirs and lessees and their authorized agents, employees, contractors, representatives, licensees, invitees, guests, or other persons acting under their direction or control (hereinafter "Related Parties") and shall continue as a servitude running in perpetuity with the Real Estate. No transfer, mortgage, lease, license, easement, or other conveyance of any interest in all or any part of the Real Estate by any person shall limit the restrictions set forth herein. This Covenant is imposed upon the entire Real Estate. By taking title to the Real Estate, any subsequent owner agrees to comply with these restrictions and the terms of this Covenant.

5. **Access for IDEM, EPA, City Defendant, and Generator Defendants**. The Owner shall provide the right of access to IDEM, EPA, City Defendant, and Generator Defendants, and to their designated representatives to enter upon the Real Estate at reasonable times for the purpose of monitoring compliance with this Covenant and with the effectiveness of the Remedial Action. This right includes, but is not limited to, access for the purposes of:

   a) Carrying out and maintaining the Remedial Action and to ensure protection of public health, safety or welfare and the environment;

   b) Monitoring the Remedial Action;

   c) Monitoring compliance with the RODs and 1991 Consent Decree;

   d) Monitoring compliance with this Environmental Restrictive Covenant;

   e) Determining whether the restrictions described in paragraph 1 above are being maintained in a manner that ensures the protection of public health, safety or welfare and the environment;

   f) Verifying that no action is being taken on the Real Estate in violation of the terms of this Environmental Restrictive Covenant or of any federal or state environmental laws or regulations;

   g) Conducting periodic reviews of the Remedial Action, including but not limited to, reviews required by applicable statutes and regulations; and

h) Implementing additional or new response actions that EPA or IDEM determine are necessary to protect public health or the environment because either: (i) the original Remedial Action has proven to be ineffective, or (ii) new technology has been developed which will accomplish the purposes of the Remedial Action in a significantly more efficient or cost effective manner and will not impose any significantly greater burden on the Real Estate or unduly interfere with the then-existing uses of the Real Estate.

Nothing in this document shall limit or otherwise affect IDEM's or EPA's rights of entry and access under applicable laws, or IDEM's or EPA's authority to take response actions under CERCLA, the NCP, or other applicable laws. No right of access or use by the general public to any portion of the Real Estate is conveyed by this Covenant.

6. **Covenant to be Recorded and Written Notice Provided**. The Owner shall include in any instrument conveying any interest in any portion of the Real Estate, including but not limited to deeds, leases and subleases (excluding mortgages, liens, similar financing interests, and other non-possessory encumbrances), the following notice provision (with blanks to be filled in):

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL RESTRICTIVE COVENANT, DATED Aug 2 2019, RECORDED IN THE OFFICE OF THE RECORDER OF GRANT COUNTY ON _____, 20__, IN INSTRUMENT NUMBER (or other identifying reference) _____, PAGE NUMBER _____ IN FAVOR OF AND ENFORCEABLE BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND THE U.S. EPA.

7. **Notice to IDEM, EPA, City Defendant, and Generator Defendants of the Conveyance of Property.** Owner shall provide notice to IDEM, EPA, City Defendant, and Generator Defendants of any conveyance (voluntary or involuntary) of any ownership interest in the Real Estate (excluding mortgages, liens, similar financing interests, and other non-possessory encumbrances). Owner must provide IDEM, EPA, City Defendant, and Generator Defendants with notice within thirty (30) days of the conveyance and include: (a) a certified copy of the instrument conveying any interest in any portion of the Real Estate, (b) its recording reference, and (c) the name and business address of the transferee.

8. **Indiana Law**. This Covenant shall be governed by, and shall be construed and enforced according to, the laws of the State of Indiana.

III. ENFORCEMENT

9. **Enforcement**. Pursuant to Indiana Code 13-14-2-6 and other applicable law, IDEM may proceed in court, by appropriate action, to enforce this Covenant. Owner also hereby acknowledges that EPA has jurisdiction to enforce this Covenant through the CERCLA action on the Real Estate and any documents in support thereof. Damages alone are insufficient to compensate IDEM, EPA, City Defendant, or Generator Defendants if any Owner of the Real Estate, or its Related Parties, breach this Covenant or otherwise default hereunder. As a result, if any Owner of the Real Estate, or its Related Parties, breach this Covenant or otherwise default hereunder, IDEM, EPA, City Defendant, and Generator Defendants shall each have the right to demand specific performance and/or immediate injunctive relief to enforce this Covenant in addition to any other remedies at law or at equity. Owner agrees that the provisions of this Covenant are enforceable, and agrees not to challenge the appropriate court's jurisdiction.

IV. TERM, MODIFICATION AND TERMINATION

10. **Term**. The restrictions shall apply until IDEM and EPA determine that the Hazardous Substances no longer present an unacceptable risk to the public health, safety, or welfare, or to the environment.

11. **Modification and Termination**. This Covenant shall not be amended, modified, or terminated except by prior written approval of IDEM and EPA. The City Defendant and Generator Defendants shall be provided with Notice and an opportunity to comment on any proposed modification or terminations. Within thirty (30) days of executing an amendment, modification, or termination (including the written approval of IDEM and EPA) of the Covenant, Owner shall record such amendment, modification, or termination with the Office of the Recorder of Grant County and within thirty (30) days after recording, provide a true copy of the recorded amendment, modification, or termination to IDEM, EPA, City Defendant, and Generator Defendants.

V. MISCELLANEOUS

12. **Waiver.** No failure on the part of IDEM, EPA, City Defendant, and/or Generator Defendants at any time to require performance by any person of any term of this Covenant shall be taken or held to be a waiver of such term or to in any way affect IDEM's, EPA's, City Defendant's, and/or Generator Defendants' right to enforce such term, and no waiver on the part of IDEM, EPA, City Defendant, and/or Generator Defendants of any term shall be taken or held to be a waiver of any other term or to constitute a breach of this Covenant.

13. **Conflict of and Compliance with Laws.** If any provision of this Covenant is also the subject of any law or regulation established by any federal, state, or local government, the strictest standard or requirement shall apply. Compliance with this Covenant does not relieve the Owner from complying with any other applicable laws.

14. **Change in Law or Regulation**. In the event of any change in applicable law or regulations, this Covenant shall be interpreted so as to ensure the continuing validity and enforceability of the restrictions listed in paragraph 1 above. In no event shall this Covenant be rendered unenforceable if Indiana's laws, regulations or policies (including those for environmental restrictive covenants, closure levels or institutional or engineering controls) change as to form or content. All statutory references include any successor provisions.

15. **Notices.** Any notice, request, consent, approval or other communication that Owner desires or is required to give pursuant to this Covenant shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Owner:
Marion Cemetery Corporation
1506 Bentley St
Wabash, IN 46992

Owner hereby attests to the accuracy of the statements in this document and all attachments.

IN WITNESS WHEREOF, the said Owner of the Real Estate described above has caused this Environmental Restrictive Covenant to be executed on this 2 day of August, 2019.

I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, as required by law.

By: M. Neil Jeffrey

Printed: M. Neil Jeffrey

Title: President

STATE OF INDIANA)
) SS:
COUNTY OF Wabash)

BRANDI K. STACKHOUSE
COUNTY OF RESIDENCE - WABASH
Commission #NP0715653
Commission Expires 08-31-2026

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared M Neil Jeffrey, who acknowledged the execution of the foregoing instrument for and on behalf of said entity.

Witness my hand and Notarial Seal this 2nd day of August, 2019.

Brandi K Stackhouse
(Signature)

BRANDI K STACKHOUSE
(Printed Name) Notary Public

Residing in WABASH County, IN

My Commission Expires:

08/31/2026

This instrument was prepared by the Indiana Department of Environmental Management:

IDEM, Office of Land Quality
IGCN-Suite 1101
100 N. Senate Ave.
Mail Code 66-31
Indianapolis, IN 46204-2251

I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, unless required by law.

Brandi K Stackhouse

To IDEM:
IDEM, Office of Land Quality
IGCN-Suite 1101
100 N. Senate Ave.
Mail Code 66-31
Indianapolis, IN 46204-2251
Attn: State Project Manager Marion (Bragg) Dump

To EPA:
Remedial Project Manager, Marion (Bragg) Dump
U.S. Environmental Protection Agency, Region 5
Superfund Division
77 W. Jackson Blvd.
Chicago, IL 60604

To City Defendant:
301 South Branson Street
Marion, IN 46952
Attn: City Attorney

To Generator Defendants:
Beveridge & Diamond, P.C.
1350 "I" Street NW, Suite 700
Washington, D.C. 20005-3311
Attn: Mr. John N. Hanson, Esquire

An Owner may change its address by giving written notice to IDEM, EPA, City Defendant, and Generator Defendants via certified mail.

16. **Severability.** If any portion of this Covenant or other term set forth herein is determined by a court to be invalid for any reason, the surviving portions of this Covenant shall remain in full force and effect as if such portion found invalid had not been included herein.

17. **Authority to Execute and Record.** The undersigned persons executing this Covenant on behalf of the Owner represent and certify that they are duly authorized and have been fully empowered to execute, record, and deliver this Covenant.

EXHIBIT A

LEGAL DESCRIPTION OF REAL ESTATE

TRACT I-D:

Commencing at the intersection of the centerline of South Lincoln Boulevard and the low water mark of the Mississinewa River in the City of Marion; thence Eastwardly and up stream on said low water mark with is meanderings thereof, a distance of one thousand seven hundred (1700) feet, more or less , or to an existing property corner; thence South on an existing property line a distance of one thousand two hundred nineteen (1219) feet or to an existing property corner; thence East on an existing property line a distance of two hundred sixty-two and six-tenths (262.6) feet or to an existing property corner; thence South on an existing property line a distance of eight hundred forty and six-tenths (840.6) feet or to a point of the centerline of Central Avenue; thence East on said centerline a distance of seventy (70) feet or to a point on the centerline of Central Avenue to the South; thence Southeast on said centerline a distance of one thousand one hundred ten (1110) feet or to an existing property corner; thence Westwardly on an existing property line a distance of nine hundred twenty (920) feet or to a point on the Easterly right of way line of Conrail; thence Northwestwardly on said Easterly right-of- way line a distance of one thousand two hundred (1200) feet or to a point on the centerline of the aforesaid Central Avenue, if extended West; thence continuing Northwestwardly on said Easterly right-of-way line a distance of one thousand two hundred sixty (1260) feet or a point on the centerline of the aforesaid Lincoln Boulevard; thence Northwardly on said centerline a distance of six hundred fifty (650) feet or to the place of beginning; containing eighty-one (81) acres, more or less, of which forty-seven (47) acres, more or less are situated in the Southeast Fractional Quarter of Section Eight (8) and thirty-four (34) acres, more or less, are situated in the northeast Quarter of Section Seventeen (17)--all in Township Twenty-four (24) North, Range Eight (8) East in the City of Marion, Center Township, Grant County, State of Indiana.

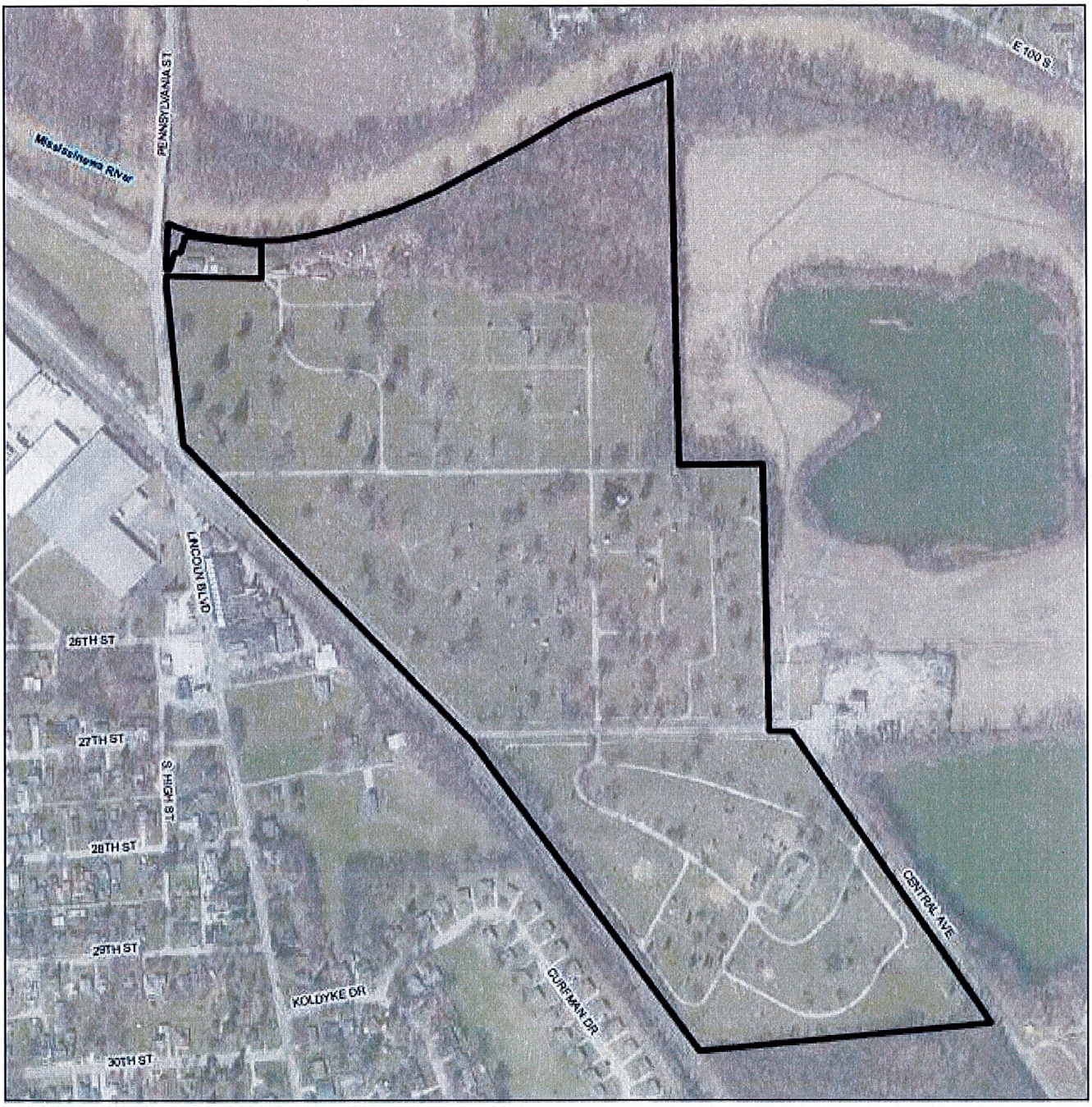
EXCEPT:

Being a part of the Southeast Fractional Quarter of Section Eight (8), Township Twenty-four (24) North, Range Eight (8) East in Center Township, Grant County, Sate of Indiana, further described as follows: Commencing at the point of intersection of the West line of the aforesaid Southeast Fractional Quarter and the centerline of Lincoln Boulevard, said point also being the place of beginning; thence South 87 degrees-20'-00" East a distance of thirty and no-tenths (30.0) feet; thence North 02 degrees-40'-00" East a distance of eight and twenty-five hundredths (8.25) feet; thence North 09 degrees-19'-00" East a distance of seventy-two and no-tenths (72.0) feet; thence south 84 degrees-40'-00" East a distance of twenty and no-tenths (20.0) feet; thence North 05 degrees-20'-00" East a distance of ten and no-tenths (10.0) feet ; thence North 05 degrees-31'-30" East a distance of fifty-three (53) feet or to a point on the Southerly water line of the Mississinewa River; thence Southeastwardly on said Southerly water line with its meanderings thereof a distance of two hundred thirty- nine and six-tenths (239.6) feet; thence South 01 degrees-39'-04" West a distance of one hundred five (105) feet; thence North 88 degrees-20'-56" West a distance of two hundred ninety-seven and eight-tenths (297.8) feet or to a point on the centerline of Lincoln Boulevard; thence North 04 degrees-28'-05" West on said centerline a distance of eleven and six-hundredths (11.06) feet or to the place of beginning; containing seventy-six hundredths (0.76) acres, more or less.

EXHIBIT B

MAP OF REAL ESTATE

Real Estate (Associated with SF 7500019 - Marion (Bragg) Dump)



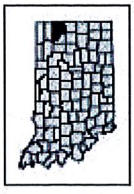
Mapped By:	Mike Hil, IDEM, Office of Land Quality, Science Services Branch, Engineering & GIS Services, July 19, 2016
Orthophoto Info:	GIS Layer Name: ImageryBestAvailable State of Indiana Best Available Orthophotography (2013 to 2017)
Grant County Deed Info:	Instrument #: 200106412 Recorded 06/06/2001 Corporate Warranty Deed (Tract 1-O)
Parcel IDs:	27-07-08-400-019.000-002 27-07-17-102-005.000-002 (2 parcels landlocked)
PLSS Info:	Sections 8 & 17, T24N, R8E, Center Township, Grant County, IN
Property:	1101 South Lincoln Boulevard, Marion, IN
Disclaimer:	This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Real Estate

0 250 500 Feet

0 75 150 Meters

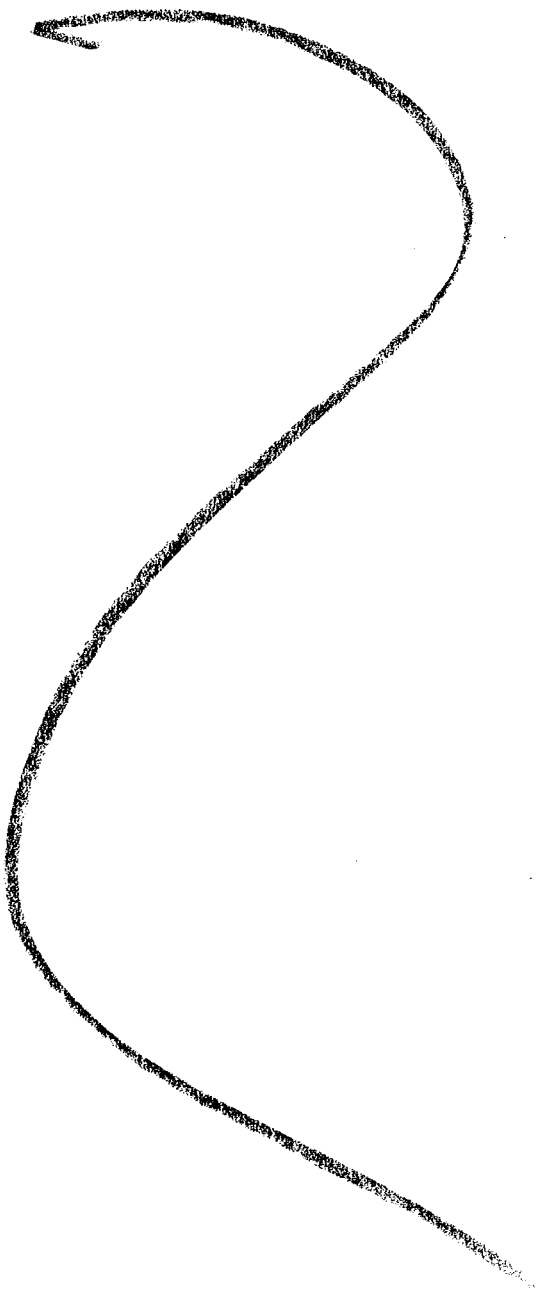
Grant County



Project Area

EXHIBIT C

POSITIVELY IDENTIFIED COMPOUNDS IN SITE GROUNDWATER



RECEIVED
AUG 6 _ 2019
By

Table 1 lists compounds positively identified in groundwater during the Fourth Five-Year Review sampling event (October 2014; VFC #80044228; incorporated herein by reference) and/or the most recent sampling event (March 2016; VFC #80385272; incorporated herein by reference) as of the recording of this ERC. Refer to the sampling event reports, available in the IDEM VFC under the document numbers provided, for the specific groundwater analytical results. Results cannot be relied upon to depict future environmental conditions at the Site.

Table 1

COMPOUND
Target Compound List (TCL) - Volatiles Organic compounds (VOCs)
Acetone
Benzene
Trichloroethene
Cis,1,2-Dichloroethene
Chlorobenzene
Isopropylbenzene
TCL - Semi-volatiles (SVOCs)
1,4-Dioxane
Dissolved Target Analyte List (TAL) - Metals
Arsenic
Barium
Beryllium
Cadmium
Calcium
Chromium
Copper
Iron
Magnesium
Manganese
Nickel
Potassium
Selenium
Sodium
Zinc

APPENDIX E – SITE ICs MAP

Figure 2

Site Map

Marion/ Bragg Landfill

Marion, Indiana

Indiana

Map Legend:

Approx. Property Boundary

- Estates of Serenity Cemetery
- Marion/Bragg Landfill
- RJT Properties

Estates of Serenity Cemetery

Environmental protection agreement resticting use of groundwater recorded 16 SEP 1998 with the Grant County Recorder

Onsite Pond

Marion/Bragg Landfill

Restrictive covenant running with the land recorded 13 APR 1989 with Grant County Recorder

RJT Properties

Restrictive covenant running with the land recorded 13 APR 1989 with Grant County Recorder

Offsite Pond

Estates of Serenity Cemetery

Environmental protection agreement resticting use of groundwater recorded 16 SEP 1998 with the Grant County Recorder

SCALE

500 250 0 500 Feet

Spatial Projection:

N

Coordinate System:
PA State Plane South
FIPS Zone: 3702
Units: US Survey Feet
Datum: NAD83

Plot Info:

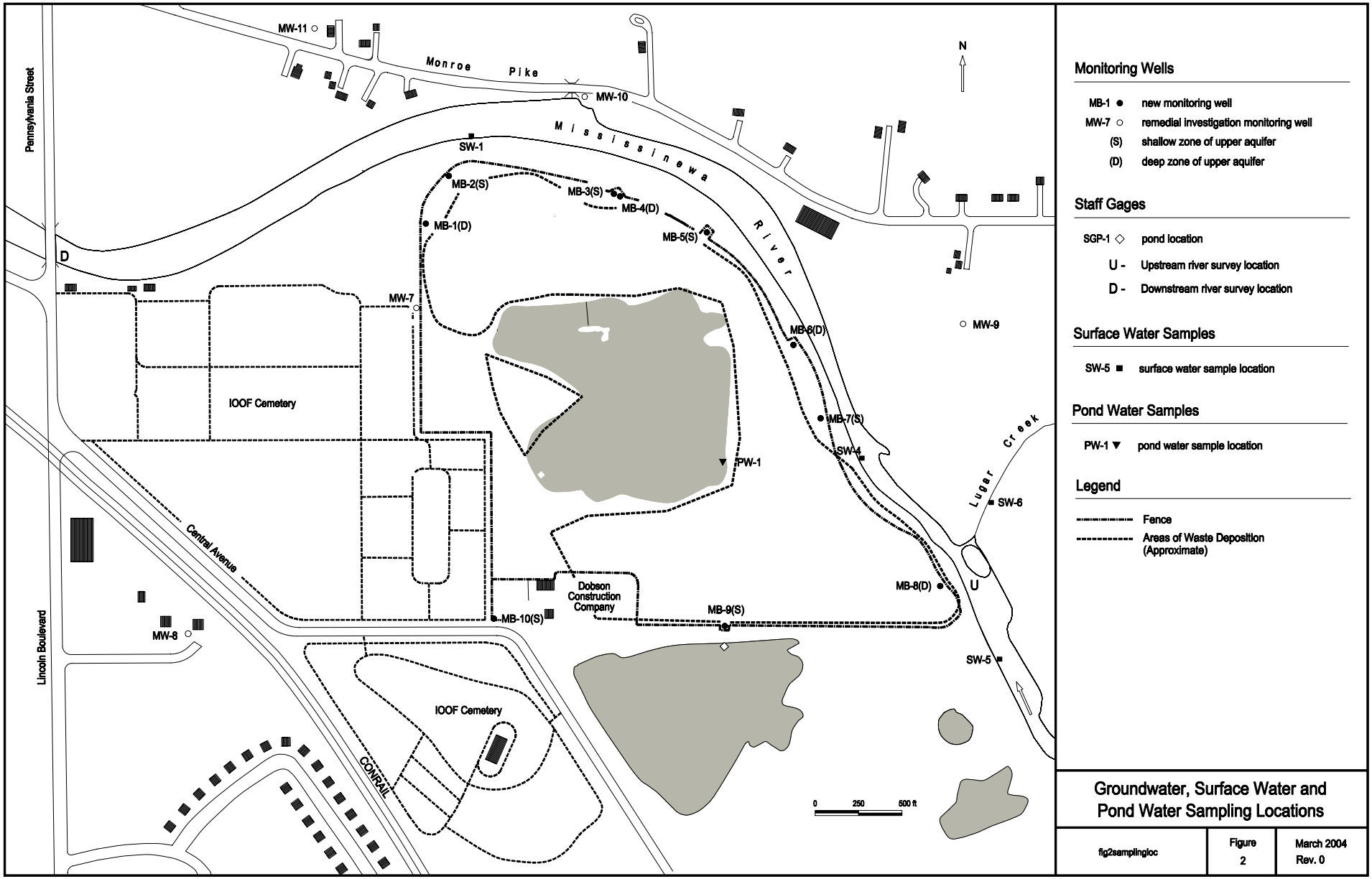
File: 110908-SiteMap.mxd
Project No: 3004
Plot Date: 8 Sept, 2011
Arc Operator: MEP
Reviewed by: BLU

ddms
de maximis Data Management Solutions
www.ddmsinc.com | (651) 842-4224

ddms server path: R:\Projects\DEF\demax-1547\3004-MarionBragg\DataAnalysis\GISData\Projects

APPENDIX F – GROUNDWATER AND SURFACE WATER MONITORING LOCATIONS

Figure 2
Sampling Locations
Marion (Bragg) Landfill



Groundwater, Surface Water and Pond Water Sampling Locations

fig2samplingloc	Figure 2	March 2004 Rev. 0

APPENDIX G – GROUNDWATER AND SURFACE WATER CRITERIA

TABLE 9: WATER QUALITY CRITERIA - UPDATED 2000

Parameter	Acute Aquatic Criteria		Chronic Aquatic Criteria		Human Health		MCL	
TCL Volatiles (ug/L)								
Acetone	10000	+	222	+	- -		- -	
Benzene	5300	E	118	+	400	I	5	E
Chlorobenzene	1950	+	50	E	2026	+	- -	
1,2-Dichloroethene (total) (1)	- -		- -		- -		70 and 100	E
Methylene Chloride	193000	E	4289	+	157	E	- -	
Toluene	17500	E	389	+	424000	I	1000	E
Trichloroethane	45000	E	21900	E	807	I	5	E
Vinyl Chloride	- -		- -		5246	I	2	E
TCL Semivolatiles (ug/L)								
Phenol	10200	E	2560	E	3500	E	- -	
Phthalate Esters	940	E	3	E	50000	I	- -	
TAL Metals and Cyanide (ug/L)								
Aluminum	- -		- -		- -		- -	
Antimony	- -		- -		45000	I	6	E
Arsenic	360	I	190	I	0.175	I	50	E
Barium	- -		- -		- -		2000	E
Beryllium	- -		- -		1.17	I	4	E
Cadmium*	6.7	I	1.6	I	60	+	5	E
Calcium	- -		- -		- -		- -	
Chromium	16	I	11	I	3389	+	100	E
Cobalt	- -		- -		- -		- -	
Copper* (2)	28	I	18	I	- -		1300	E
Cyanide	22	I	5.2	I	24242	+	200	E
Iron	1000	E	- -		- -		- -	
Lead* (2)	150	I	5.8	I	51	+	15	E
Magnesium	- -		- -		- -		- -	
Manganese	- -		- -		- -		- -	
Mercury	2.4	I	0.012	I	0.15	I	2	E
Nickel*	2100	I	240	I	100	I	100	E
Potassium	- -		- -		- -		- -	
Selenium	130	I	25	I	- -		50	E
Silver*	9.2	I	0.12	E	- -		50	E
Sodium	- -		- -		- -		- -	
Thallium	- -		- -		48	I	2	E
Vanadium	11000	+	100	+	- -		- -	
Zinc*	175	I	160	I	- -		- -	
IDEM Parameters (mg/L)								
Ammonia, Total Unionized**	0.027	I	0.0029	I	- -		- -	
COD	- -		- -		- -		- -	
Chloride	860	I	230	I	- -		- -	
TSS	- -		- -		- -		- -	

Notes:

*Acute and chronic criteria calculated based on worst-case hardness=161 mg/L
**Acute and chronic criteria calculated based on worst-case t=5C, pH=7.0
- - Criteria not developed
MCL - Maximum Contaminant Level (Updated per the Safe Drinking Water Act of 1986 and later revisions known as the Phase I, Phase II, and Phase V rules. Phase I became effective January 9, 1989, Phase II became effective in 1992, and Phase V became effective January 17, 1994.)
Source of Data
E - U.S. EPA
I - IDEM (327 IAC 2)
+ - See section 6.2 of February 1990 report by Beak Consultants Limited Baseline Water Quality Conditions for discussion of sources for the criteria.
(1) The 1,2-Dichloroethene MCL standards are divided into cis-1,2-Dichloroethene at 70 ug/L and trans-1,2 Dichloroethene at 100 ug/L.
(2) - The "MCL" value is an action level for lead and copper (i.e., the lead and copper rule) but it only applies to water supplies as measured at the household tap.

APPENDIX H – SITE INSPECTION CHECKLIST

Site Inspection Checklist

I. SITE INFORMATION	
Site name: **Marion (Bragg) Dump**	**Date of inspection:** **9/5/2019**
Location and Region: **Marion, Grant County, Indiana**	**EPA ID:** **IND980794366**
Agency, office, or company leading the FYR: EPA	**Weather/temperature:** 70 deg F/Clear skies

Remedy Includes: (Check all that apply)

☒ Landfill cover/containment	☐ Monitored natural attenuation
☒ Access controls	☐ Groundwater containment
☒ Institutional controls	☐ Vertical barrier walls
☐ Groundwater pump and treatment	☒ Other: Surface water and groundwater monitoring
☐ Surface water collection and treatment	

Attachments:

☐ Inspection team roster attached	☐ Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M Site Manager** **Walter Peter Burton,** **Mr.,** **5/12/2020**

Interviewed: ☐ at site ☐ at office ☒ by phone Phone Number: Click here to enter text.

Problems, suggestions: ☐ Report attached

Mr. Burton reported no major issues with O&M of the Site. He indicated that the Site has remained relatively the same during his 20 years of experience at the Site. He noted that some trespassing and vandalism had been reported to him by the Site owner in the previous two weeks. Mr. Burton reported that he notified the City of Marion of the vandalism to the Site fence.

2. **O&M Staff** **Robin Shrader, Ms,** Click or tap to enter a date.

Interviewed: ☐ at site ☐ at office ☒ by phone Phone Number: Click here to enter text.

Problems, suggestions: ☐ Report attached

Note: Ms. Shrader is the O&M Manager for the City Defendant and not the O&M Staff. Ms. Shrader reported no major issues with respect to implementation of O&M of the remedy. She noted only minor recurring issues have needed to be addressed such as periodic fence repair. Ms. Shrader also noted that on a couple of occasions, the front gate had been left unlocked by the Site Owner.

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency: Click or tap here to enter text.

Contact: Name , Title , Click or tap to enter a date., P: Phone Number

Problems, suggestions: ☐ Report attached

Click or tap here to enter text.

Agency: Click or tap here to enter text.

Contact: Name , Title , Click or tap to enter a date., P: Phone Number

Problems, suggestions: ☐ Report attached

Click or tap here to enter text.

Agency: Click or tap here to enter text.

Contact: Name , Title , Click or tap to enter a date., P: Phone Number

Problems, suggestions: ☐ Report attached

Click or tap here to enter text.

Agency: Click or tap here to enter text.

Contact: Name , Title , Click or tap to enter a date., P: Phone Number

Problems, suggestions:

Click or tap here to enter text.

4. **Other Interviews (optional):** ☐ Report attached

The Site Property Owner was interviewed on 05/12/2020. According to the Site Property Owner, the Site has been well maintained. The landfill road in particular has been well maintained recently. Trespassing and vandalism had occurred recently. The Site fence along the western perimeter had been damaged by the vandals. The Site Property Owner reported the damage to Mr. Burton. The Site Propety Owner noted that the City of Marion repaired the Site fence within a week of the report.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. O&M Documents

☒ O&M manual	☒ Readily available	☒ Up to date	☐ N/A
☒ As-built drawings	☐ Readily available	☐ Up to date	☐ N/A
☒ Maintenance logs	☒ Readily available	☒ Up to date	☐ N/A

Remarks: **Mr. Bennie Underwood, of de maximus, inc., consultant to the City Defendant, reported that these documents are readily available either on-Site during monitoring events in hard-copy format (O&M manual), available at their corporate offices (As-built drawings), or available at the City of Marion (maintenance logs). Ms. Shrader reported that the O&M manual and maintenance logs are available at the city waste water treatment plant. Ms. Shrader reported that staff had looked into whether as-built drawings were available, but were unable to locate as-built drawings.**

2. Site-Specific Health and Safety Plan ☒ Readily available

☒ Contingency Plan/Emergency Response Plan ☒ Readily available

Remarks: Mr. Underwood reported that the Site Health and Safety Plan, including contingency/response, is located with the O&M Manager, and is brought on-Site during groundwater monitoring events. Ms. Shrader reported that the comprehensive health and safety plan is available at the city's wastewater treatment plant.

3. O&M and OSHA Training Records

☒ Readily available ☒ Up to date ☐ N/A

Remarks: Mr. Underwood reported that training records are available at de maximus, inc. corporate offices and available electronically, as needed. Ms. Shrader indicated that training records are available at the City's wastewater treatment plant.

4. Permits and Service Agreements

☐ Air discharge permit	☐ Readily available	☐ Up to date	☒ N/A

☐ Effluent discharge	☐ Readily available	☐ Up to date	☒ N/A
☐ Waste disposal, POTW	☐ Readily available	☐ Up to date	☒ N/A

☐ Other permits: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

5. Gas Generation Records

☐ Readily available ☐ Up to date ☒ N/A

Remarks: Click or tap here to enter text.

6. Settlement Monument Records

☐ Readily available ☐ Up to date ☒ N/A

Remarks: Click or tap here to enter text.

7. Groundwater Monitoring Records

☒ Readily available ☒ Up to date ☐ N/A

Remarks: Mr. Underwood reported that groundwater monitoring records are available at de maximus, inc. corporate offices and are available electronically as needed.

8. Leachate Extraction Records

☐ Readily available ☐ Up to date ☒ N/A

Remarks: Click or tap here to enter text.

9. Discharge Compliance Records

☐ Air	☐ Readily available	☐ Up to date	☒ N/A
☐Water (effluent)	☐ Readily available	☐ Up to date	☒ N/A

Remarks: Click or tap here to enter text.

10. Daily Access/Security Logs

☐ Readily available ☐ Up to date ☒ N/A

Remarks: Click or tap here to enter text.

IV. O&M COSTS

1. O&M Organization

☐ State in-house	☐ Contractor for State
☒ PRP in-house	☒ Contractor for PRP
☐ Federal Facility in-house	☐ Contractor for Federal Facility

Remarks: O&M, Inc. and de maximus, inc., contractors for the Generator Defendants are responsible for O&M of the groundwater monitoring network. The City of Marion conducts O&M of the remaining portions of the remedy in-house, barring mowing, which is contracted out.

2. O&M Cost Records

☒Readily available ☒ Up to date ☐ Funding mechanism/agreement in place

Original O&M cost estimate Click or tap here to enter text. ☐ Breakdown attached

Total annual cost by year for review period if available

From	To	Total cost	
1/1/2015	12/31/2015	$1800.00	☐ Breakdown attached
1/1/2016	12/31/2016	$1500.00	☐ Breakdown attached
1/1/2017	12/31/2017	$1500.00	☐ Breakdown attached
1/1/2018	12/31/2018	$1500.00	☐ Breakdown attached
1/1/2019	12/31/2019	$1500.00	☐ Breakdown attached

3. Unanticipated or Unusually High O&M Costs During Review Period

Describe costs and reasons:

See Section II – "Systems Operations & Maintenance" of the 2020 FYR Report.

V. ACCESS AND INSTITUTIONAL CONTROLS

☒ Applicable ☐ N/A

1. Fencing Damaged ☐ Location shown on site map ☒ Gates secured ☐ N/A

Remarks: Fencing was slightly damage along the southern perimeter of the Site. See Site Inspection Photo Documentation Log.

2. Other Access Restrictions ☐ Location shown on site map ☒ Gates secured

Remarks: Locks at front entrance, man-gates, and moniotirng wells appeared to be in good working condition.

3. Institutional Controls (ICs)

A. Implementation and Enforcement

Site conditions imply ICs not properly implemented ☒ Yes ☐ No ☐ N/A

Site conditions imply ICs not being fully enforced ☒ Yes ☐ No ☐ N/A

Type of monitoring (*e.g.*, self-reporting, drive by)	Site visit		
Frequency	5th Quarterly		
Responsible party/agency	Generator Defendants		
Contact: Bennie Underwood, Mr. , 9/5/2019, P: Phone Number			
Reporting is up-to-date	☐ Yes	☐ No	☒ N/A
Reports are verified by the lead agency	☐ Yes	☐ No	☒ N/A
Specific requirements in deed or decision documents have been met	☐ Yes	☒ No	☐ N/A
Violations have been reported	☒ Yes	☐ No	☐ N/A

Other problems or suggestions:

Private well was discovered on the Miller Construction property during the 2015 FYR. See Section II – "Status of Access Restrictions and ICs" of the 2020 FYR. Reporting is note required as an ICIAP has not yet been finalized.

B. Adequacy ☐ ICs are adequate ☒ ICs are inadequate ☐ N/A

Remarks: **A review of Site ICs following the 2015 FYR found that the ICs should be revised for up-to-date Indiana Administrative Code. See Section II – "Status of Access Restrictions and ICs" of the FYR Report for further details.**

4. General

A. Vandalism/Trespassing ☐ Location shown on site map ☒ No vandalism evident

Remarks: No vandalism visible during the Site Inspection. Vandalism reported in May 2020 by the property owner.

B. Land use changes on site ☒ N/A

Remarks: Click or tap here to enter text.

C. Land use changes off site ☒ N/A

Remarks: Click or tap here to enter text.

VI. GENERAL SITE CONDITIONS

1. Roads ☒ Applicable ☐ N/A

A. Roads damaged ☐ Location shown on site map ☒ Roads adequate ☐ N/A

Remarks: Gravel road appeared to be in good condition.

B. Other Site Conditions

Remarks: Click or tap here to enter text.

VII. LANDFILL COVERS

Site Inspection Checklist

1. Landfill Surface	☒ Applicable	☐ N/A
A. Settlement (Low Spots)	☐ Location Shown on Site Map	☒ Settlement Not Evident
Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
B. Cracks	☐ Location Shown on Site Map	☒ Cracking Not Evident
Lengths: Click or tap here to enter text.	Widths: Click or tap here to enter text.	Depths: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
C. Erosion	☐ Location Shown on Site Map	☒ Erosion Not Evident
Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
D. Holes	☐ Location Shown on Site Map	☒ Holes Not Evident
Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
E. Vegetative Cover	☒ Grass	☒ Cover Properly Established
☐ Tress/Shrubs (indicate size and locations on a diagram		☒ No Signs of Stress
Remarks: Click or tap here to enter text.		
F. Alternative Cover (armored rock, concrete, etc.)		☒ N/A
Remarks: Click or tap here to enter text.		
G. Bulges	☐ Location Shown on Site Map	☒ Bulges Not Evident
Areal Extent: Click or tap here to enter text.		Height: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
H. Wet Areas/Water Damage	☒ Wet Areas/Water Damage Not Evident	
☐ Wet Areas	☐ Location Shown on Site Map	Areal Extent: Click or tap here to enter text.
☐ Ponding	☐ Location Shown on Site Map	Areal Extent: Click or tap here to enter text.
☐ Seeps	☐ Location Shown on Site Map	Areal Extent: Click or tap here to enter text.
☐ Soft Subgrade	☐ Location Shown on Site Map	Areal Extent: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		

Site Inspection Checklist

I. Slope Instability ☐ Location Shown on Site Map ☒ Slope Instability Not Evident

☐ Slides Areal Extent: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

2. Benches ☐ Applicable ☒ N/A

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

A. Flows Bypass Bench ☐ Location Shown on Site Map ☒ N/A or Okay

Remarks: Click or tap here to enter text.

B. Bench Breached ☐ Location Shown on Site Map ☒ N/A or Okay

Remarks: Click or tap here to enter text.

C. Bench Overtopped ☐ Location Shown on Site Map ☒ N/A or Okay

Remarks: Click or tap here to enter text.

3. Letdown Channels ☒ Applicable ☐ N/A

(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

A. Settlement ☐ Location Shown on Site Map ☒ Settlement Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Material Degradation ☐ Location Shown on Site Map ☒ Degradation Not Evident

Material Type: Click or tap here to enter text. Areal Extent: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

C. Erosion ☐ Location Shown on Site Map ☒ Erosion Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

D. Undercutting ☐ Location Shown on Site Map ☒ Undercutting Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

E. Obstructions ☐ Location Shown on Site Map ☒ Undercutting Not Evident

Type: Click or tap here to enter text.

Areal Extent: Click or tap here to enter text. Size: Click or tap here to enter text.

Remarks: Site inspection form notes “Undercutting Not Evident”. Should read “Obstructions Not Evident”

F. Excessive Vegetative Growth ☐ Location Shown on Site Map ☒ Excessive Growth Not Evident

Areal Extent: Click or tap here to enter text. ☐ Vegetation in channels does not obstruct flow

Remarks: Click or tap here to enter text.

4. Cover Penetrations ☒ Applicable ☐ N/A

A. Gas Vents ☐ Active ☐ Passive

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled

☐ Good condition ☐ Evidence of leakage at penetration

☐ Needs Maintenance ☒ N/A

Remarks: Click or tap here to enter text.

B. Gas Monitoring Probes

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled

☐ Good condition ☐ Evidence of leakage at penetration

☐ Needs Maintenance ☒ N/A

Remarks: Click or tap here to enter text.

C. Monitoring Wells

☒ Properly secured/locked ☒ Functioning ☒ Routinely sampled

☒ Good condition ☐ Evidence of leakage at penetration

☐ Needs Maintenance ☐ N/A

Remarks: Monitoring wells do not penetrate cover, except for MB 8 which was drilled thorugh Site wastes. However, their conditions are reported here for the purposes of recording the MW conditions in the Site Inspection Form. Both on-Site and off-Site monitoring wells were inspected and found to be secured, functions, and in good condition. All monitoring wells are routinely sampled every 5 years.

D. Leachate Extraction Wells

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled

☐ Good condition ☐ Evidence of leakage at penetration

☐ Needs Maintenance ☒ N/A

Remarks: Click or tap here to enter text.

E. Settlement Monuments ☐ Located ☐ Routinely Surveyed ☒ N/A

Remarks: Click or tap here to enter text.

5. Gas Collection and Treatment	☐ Applicable	☒ N/A
A. Gas Treatment Facilities		
☐ Flaring	☐ Thermal Destruction	☐ Collection for Reuse
☐ Good condition	☐ Needs Maintenance	
Remarks: Click or tap here to enter text.		
B. Gas Collection Wells, Manifolds, and Piping		
☐ Good condition	☐ Needs Maintenance	☐ N/A
Remarks: Click or tap here to enter text.		
C. Gas Monitoring Facilities (e.g. gas monitoring of adjacent homes or buildings)		
☐ Good condition	☐ Needs Maintenance	☐ N/A
Remarks: Click or tap here to enter text.		
6. Cover Drainage Layer	☐ Applicable	☒ N/A
A. Outlet Pipes Inspected	☐ Functioning	☐ N/A
Remarks: Click or tap here to enter text.		
B. Outlet Rock Inspected	☐ Functioning	☐ N/A
Remarks: Click or tap here to enter text.		
7. Detention/Sediment Ponds	☐ Applicable	☒ N/A
A. Siltation	☐ Siltation Not Evident	☐ N/A
Areal Extent: Click or tap here to enter text.	Depth: Click or tap here to enter text.	
Remarks: Click or tap here to enter text.		
B. Erosion	☐ Erosion Not Evident	
Areal Extent: Click or tap here to enter text.	Depth: Click or tap here to enter text.	
Remarks: Click or tap here to enter text.		
C. Outlet Works	☐ Functioning	☐ N/A
Remarks: Click or tap here to enter text.		
D. Dam	☐ Functioning	☐ N/A
Remarks: Click or tap here to enter text.		
8. Retaining Walls	☐ Applicable	☒ N/A
A. Deformations	☐ Location Shown on Site Map	☐ Deformation Not Evident

Horizontal Displacement: Click or tap here to enter text.

Vertical Displacement: Click or tap here to enter text.

Rotational Displacement: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Degradation ☐ Location Shown on Site Map ☐ Deformation Not Evident

Remarks: Click or tap here to enter text.

9. Perimeter Ditches/Off-Site Discharge ☐ Applicable ☒ N/A

A. Siltation ☐ Location Shown on Site Map ☐ Siltation Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Vegetative Growth ☐ Location Shown on Site Map ☐ N/A

☐ Vegetation Does Not Impede Flow

Areal Extent: Click or tap here to enter text. Type: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

C. Erosion ☐ Location Shown on Site Map ☐ Erosion Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

D. Discharge Structure ☐ Functioning ☐ N/A

Remarks: Click or tap here to enter text.

VIII. VERTICAL BARRIER WALLS

☐ Applicable ☒ N/A

1. Settlement ☐ Location Shown on Site Map ☐ Settlement Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

2. Performance Monitoring Type of Monitoring: Click or tap here to enter text.

☐ Performance Not Monitored ☐ Evidence of Breaching

Frequency: Click or tap here to enter text. Head Differential: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

IX. GROUNDWATER/SURFACE WATER REMEDIES

☐ Applicable ☐ N/A

Site Inspection Checklist

1. Groundwater Extraction Wells, Pumps, and Pipelines ☒ Applicable ☐ N/A

A. Pumps, Wellhead Plumbing, and Electrical ☒ N/A

☐ Good Condition ☐ All Required Wells Properly Operating ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

B. Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances

☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

C. Spare Parts and Equipment ☐ Needs to be Provided

☐ Readily Available ☐ Good Condition ☐ Requires Upgrade

Remarks: Click or tap here to enter text.

2. Surface Water Collection Structures, Pumps, and Pipelines ☐ Applicable ☒ N/A

A. Collection Structures, Pumps, and Electrical

☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

B. Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances

☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

C. Spare Parts and Equipment ☐ Needs to be Provided

☐ Readily Available ☐ Good Condition ☐ Requires Upgrade

Remarks: Click or tap here to enter text.

3. Treatment System ☐ Applicable ☒ N/A

A. Treatment Train (Check components that apply)

☐ Metals removal ☐ Oil/Water Separation ☐ Bioremediation

☐ Air Stripping ☐ Carbon Absorbers

☐ Filters Click or tap here to enter text.

☐ Additive (e.g. chelation agent, flocculent) Click or tap here to enter text.

☐ Others Click or tap here to enter text.

☐ Good Condition ☐ Needs Maintenance

☐ Sampling ports properly marked and functional

☐ Sampling/maintenance log displayed and up to date

☐ Equipment properly identified

☐ Quantity of groundwater treated annually Click or tap here to enter text.

☐ Quantity of surface water treated annually Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Electrical Enclosures and Panels (properly rated and functional)

☒ N/A ☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

C. Tanks, Vaults, Storage Vessels ☒ N/A

☐ Proper Secondary Containment ☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

D. Discharge Structure and Appurtenances

☒ N/A ☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

E. Treatment Building(s)

☒ N/A ☐ Good condition (esp. roof and doorways)

☐ Needs repair ☐ Chemicals and equipment properly stored

Remarks Click or tap here to enter text.

F. Monitoring Wells (Pump and Treatment Remedy) ☒ N/A

☐ Properly secured/locked ☐ Functioning

☐ Routinely sampled ☐ All required wells located

☐ Good condition ☐ Needs Maintenance

Remarks See VII.4, Cover Penetrations.

4. Monitoring Data

A. Monitoring Data:

☒ Is Routinely Submitted on Time ☐ Is of Acceptable Quality

B. Monitoring Data Suggests:

☐ Groundwater plume is effectively contained ☒ Contaminant concentrations are declining

5. Monitored Natural Attenuation

A. Monitoring Wells (natural attenuation remedy) ☒ N/A

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled

☐ All required wells located ☐ Needs Maintenance ☐ Good condition

Remarks: Click or tap here to enter text.

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

1. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).
The constructed elements of the remedy are designed to prevent direct contact with on-site wastes and surface soils, control migration off-site and to surface water, minimize migration to groundwater, minimize direct contamanant consumption of ground water, and control migration of ground water to surface water.

The constructed elements of the remedy appear to be effective and functioning as designed. The cap is well maintained and vegetated. The perimeter fencing has minor damage; however it is regularly repaired by the City. Groundwater and surface water contamination has not exceeded the applicable criteria established for the FYR period.

2. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.
The O&M of the remedy presents no barriers for long-term or short-term effectiveness of the remedy. O&M of the constructed elements of the remedy have been well-maintained. Minor issues with O&M were noted – some damage to the Site fence along the southern perimeter and one monitoring well bollard was down and laying next to the monitoring well. Site fencing is routinely addressed by the City Defendant. Repair of the monitoring well bollard has been recommended in the FYR for the Generator Defendants.

3. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.

No early indicators of potential remedy problems were noted.

4. Early Indicators of Potential Remedy Problems

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.
Note, Site Inspection Form lists “Early Indicators of Potential Remedy Problems,” where this Seciton should probably be titled “Opportunities for Optimization”. At this time, means for remedy optimization include decreasing the number of Site inspections or decreasing the frequency of groundwater monitoring. However, that O&M of the engineering components of the remedy under the current site inspection frequency has generally been effective, reduction in the frequency of Site inspections is not adviseable.

Similarly, frequency of groundwater monitoring has been reduced to 5th quarterly events to select wells. Full groundwater monitoring events are conducted every 5 years. Further reduction is not adviseable.

APPENDIX I – SITE INSPECTION PHOTO DOCUMENTATION LOG

Photo 1. Vegetative growth along southwest fence line, looking south.

Photo 2. Fence line needing repair along southern fence line, looking south.

Photo 3. Southern fence line, needing repair.

Photo 4. Obstruction along foot of fence line, needing removal and potential fence line repair. Photo taken facing south.

Photo 5. Downed monitoring well bollard needing replacement.

APPENDIX J – 2020 FIVE YEAR REVIEW PUBLIC NOTICE

RAISE

Continued from A1

employees face when compared to counties of similar size, like Wabash and Howard counties.

"What they passed tonight isn't the end of it. It's a marathon. It's not a sprint," Ogden said.

Ogden went on to say that while employees with the sheriff's department are happy for their fellow county employees, they fully intend to keep fighting.

"From a labor standpoint, this was a good deal, but there's still a long way to go," he said.

Ogden said that union members are disappointed in the way everything played out, as IUPA negotiators feared they would have to walk away empty handed if they continued to push.

The agreement states that the rates of pay will be in effect until Dec. 31, 2020.

The involved parties will be able to reopen base pay negotiations in 2021, with those negotiations beginning by July 1, 2020, according to documents.

LIGHTS

Continued from A1

favorite part of the event was everything.

"It's the joy of Christmas," Edwards said. "Everybody's feeling festive."

According to the department's administrative assistant Pam Leming, approximately 200 people came through the terminal that night. Edwards said he thought there were more people this year based on how many donuts and punch were taken.

Edwards said that to him, Christmas is about God and family, and marrying into a big family has impacted that too. Citizen Megan Hall brought her three children and a neighbor she watches to see the lights. The children noted they especially liked the walking dinosaur lights, and Hall said she liked that it was free to the public. To her Christmas is all about love, she said.

"It's just a good time… if you can mix a good time with Jesus," Edwards said. "Nobody's in a bad mood when they come here."

"It's just a time of holiday cheer," Leming said.

Photos by Grace Hooley / Chronicle-Tribune

DONUTS: The public enjoys donuts and punch as they wait for their free ride to the Walkway of Lights.

RECOVERY

Continued from A1

he is currently working on reducing stigmas through events such as Voices of Recovery and sharing his own journey. He also has a stigma reduction campaign named "Just say 'no' to rock bottom" where they ask individuals how they can help in reducing myths surrounding substance use disorder.

"My hope is that by helping others find recovery and sharing my own journey that others will overcome the stigma of addiction and ask for help," Beal said. "My goal is for a healthier community in which those in recovery continue to grow and become the best versions of themselves. If you're struggling, it's okay. Help is only a prayer away. Please ask for help today."

Shane Beal's wife, Amy Beal, said she thinks he deserves the award because of his tireless work helping the community tackle problems associated with substance use disorder and helping those in recovery.

She said she is most proud of his sense of vulnerability and passion for helping people. According to Amy Beal, he purely cares for those he walks alongside and desires to hear their struggles. From his own past with substance use disorder, he knows firsthand the real impact of making a recovery journey a priority, she said, and that draws people to him.

"I think the sky is the limit," Amy Beal said. "I know that he won't stop working until we have enough full-time transitional housing for men and women in this community, safe places for people in recovery to continue their journey toward health and life success. I know that he will also continue to partner with others to raise awareness in our community and to help reduce the stigma associated with those in recovery."

"I am humbled and honored to even be considered, let alone, awarded the Recovery Coach of the Year by Mental Health of America of Indiana," Shane Beal said. "My own recovery journey continues to amaze me in that I continue to experience redemption, forgiveness and grace from walking this recovery thing out."

Photos provided by Shane Beal

LUNCHEON: Shane Beal recieved this award during a Mental Health Association of Indiana luncheon.

AWARD: Shane Beal stands with his wife Amy Beal (left) and House Representative Ann Vermillion (right) after receiving the Recovery Coach of the Year award.

Photos provided by Shane Beal

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EPA Begins Review of Marion Bragg Dump Superfund Site

Marion, Indiana

U. S. Environmental Protection Agency is conducting a five-year review of the Marion Bragg Dump Superfund site immediately southwest of the Mississinewa River near Marion. 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 fifth five-year review of this site.

EPA's cleanup of the contamination at the site consisted of fencing the perimeter of the area, installing a landfill cap and protecting it from floodwaters, stabilizing the riverbank and imposing limits on use of the site. A monitoring program is in place to provide more information on the progress of the cleanup of groundwater, the on-site pond and river.

More information is available at the Marion Public Library, 600 S. Washington St., and at http://www.epa.gov/superfund/marion-bragg-dump. The review should be completed August 2020.

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

Janet Pope
Community Involvement Coordinator
312-353-0628
pope.janet@epa.gov

Viral Patel
Remedial Project Manager
312-886-6943
patel.viral@epa.gov

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