

**Maintenance and Monitoring Plan
North Berkeley Lake Road Site –
Gwinnett Regional Distribution Center
Georgia Hazardous Site Inventory No. 10844**

Prepared for:
3312 Berkeley Lake Road Investors, LLC

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List of Attachments

Attachment A: Property Layout

Attachment B: Annual Evaluation Form and Non-Scheduled Maintenance Form

Acronyms and Abbreviations

CAP	Corrective Action Plan
COPC	Constituent of Potential Concern
EPD	Georgia Environmental Protection Division
HSRA	Hazardous Site Response Act
MMP	Monitoring and Maintenance Plan
RRS	Risk Reduction Standards

1 Introduction

The approximately 51-acre parcel owned by 3312 Berkeley Lake Road Investors, LLC (Tax Parcel No. R6267 026 of Gwinnett County, Georgia; the “Property”) has been the subject of multiple soil and groundwater investigation and remediation activities since 2006, as discussed in the 2015 Compliance Status Report (CSR). As a result, arsenic-impacted soil associated with fill material used for grading the parcel during the original development of the site (**Attachment A**) was remediated in various locations across the site that are not covered by pavement, beneath the warehouse building, or adjacent to the railroad tracks, so that soil across the site meets Type 4 risk reduction standards (RRS).

Exposure to arsenic in the soil at the Property will be further mitigated through the use of engineering and institutional controls. Specifically, the engineering controls will consist of a protective surface cover to minimize exposure to arsenic-impacted soil, and the institutional controls will consist of an Environmental Covenant for the site that includes this Maintenance and Monitoring Plan (MMP). Per the Environmental Covenant, the Property shall be used only for non-residential purposes, as defined in Section 391-3-19-.02 of the Rules.

The remainder of this MMP presents the:

- Engineering controls for the Property (**Section 2**);
- Land use and disturbance plan, including the associated monitoring activities and control systems (**Section 3**);
- Planned land use of the Property (**Section 4**); and,
- Reporting associated with the Property (**Section 5**).

2 Engineering Controls

To maintain compliance with Type 4 RRS for arsenic in soil at the Property, a protective surface cover must remain in place to minimize exposure to arsenic-impacted soils. The Property is currently covered by pavement and building structures. In addition, permanent markers will be used to delineate the Property as a restricted area (**Attachment A**). The markers will be installed within 90 days of EPD's approval of the Environmental Covenant.

3 Land Use and Disturbance Plan

The Property shall be used only for non-residential purposes, as defined in Section 391-3-19-.02 of the HSRA Rules, and defined in and allowed under the Gwinnett County's zoning regulations as of the date of the Environmental Covenant. Any residential use of the Property shall be prohibited, unless approved in advance by the Director of the EPD.

Any activity on the Property that may result in exposure to arsenic in the soil at the Property that were contained as part of the EPD-approved Corrective Action Plan, or create a new exposure pathway associated with exceedances of the EPD-approved site-specific Type 4 RRS for arsenic in soil, is prohibited. Any intrusive activities or other site work that may impact the existing protective surface cover, including soil, pavement, and building foundations ("intrusive activities"), must be conducted in accordance with this plan. Intrusive activities include, but are not limited to, drilling; digging; placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability; piercing the surface with a rod, spike or similar item; bulldozing; or earthwork.

All intrusive activities must be evaluated before implementation to determine applicable health and safety requirements, and waste management and disposal requirements. During implementation of intrusive activities, hardscape and softscape materials will be properly characterized and appropriately managed on-site, and if necessary, disposed of at an offsite disposal facility. Any excavations that are undertaken will be backfilled with clean soil or fill material (analyzed by a certified laboratory to confirm that concentrations are less than background and/or the HSRA Notification Criteria), and the surface will be restored with material that is comparable to the existing protective surface cover. All intrusive activities will be conducted in compliance with applicable Occupational Health and Safety Administration requirements.

3.1 Maintenance and Inspection

The methods, procedures, and processes that must be used to inspect and maintain the engineering controls and other fixtures are discussed below. Inspections will be performed at least annually, and will be documented using the Annual Evaluation Form provided in **Attachment B**.

3.1.1 Protective Surface Cover

The protective surface cover at the site consists of two components, hardscape (asphalt, concrete, and buildings) and softscape (trees, shrubs, grass). Both components will be maintained to prevent exposure to soil exceeding the Type 4 RRS for arsenic. Specifically, the hardscape protective surface cover at the Property will be maintained to prevent cracks, movement, or damage that leads to soil exposure. The softscape protective surface cover at the Property will be maintained to prevent soil erosion. The integrity of the protective surface cover will be inspected annually and the results of the inspection will be recorded using the Annual Evaluation Form provided in **Attachment B**.

Any maintenance performed on the protective surface cover will be documented using the Maintenance Log Form provided in **Attachment B**. Any significant damage to the protective surface cover will be repaired within 60 days of discovery, and any less significant damage will

be repaired within 90 days of discovery. The repairs will be made in accordance with good engineering practices, and will be conducted by qualified personnel. If maintenance of the cover is required, documentation of the activities, including a description of the protective surface cover conditions, the severity of the observed damage, a description of the repairs, the dates that repairs were initiated and completed, and the name of the inspector, will be included on the Maintenance Log Form provided in **Attachment B**.

Any significant changes to the protective surface cover observed during the inspection will be noted in the Annual Evaluation Form provided in **Attachment B**.

3.1.2 Permanent Markers

The Environmental Covenant mandates that permanent markers be installed and maintained on the Property to delineate the restricted area as specified in Section 391-3-19-.07(10) of the Rules. The locations of the markers are illustrated in **Attachment A**. Disturbance or removal of the markers is prohibited.

The structural integrity of the markers will be inspected annually and maintained to avoid being crushed, broken, or defaced in a manner that makes the markers unreadable or removable. The results of the inspection will be recorded using the Annual Evaluation Form provided in **Attachment B**.

Any maintenance performed on the permanent markers will be documented using the Maintenance Log Form provided in **Attachment B**. Any significant damage to the permanent markers will be repaired within 60 days of discovery, and any less significant damage will be repaired within 90 days of discovery. The repairs will be made in accordance with good engineering practices, and will be conducted by qualified personnel. If maintenance of the permanent markers is required, documentation of the activities, including a description of the protective surface cover conditions, the severity of the observed damage, a description of the repairs, the dates that repairs were initiated and completed, and the name of the inspector, will be included on the Maintenance Log Form provided in **Attachment B**.

Any significant changes to the permanent markers observed during the inspection will be noted in the Annual Evaluation Form provided in **Attachment B**.

4 Planned Uses of the Property

The annual inspection must verify the use of the Property by owners, tenants, and other occupants to be consistent with non-residential use. In addition, all lease agreements and other agreements concerning the use of the Property must be reviewed to ensure the language is consistent with non-residential use of the Property.

The results of the inspection must be summarized in the Annual Evaluation Form provided in **Attachment B**.

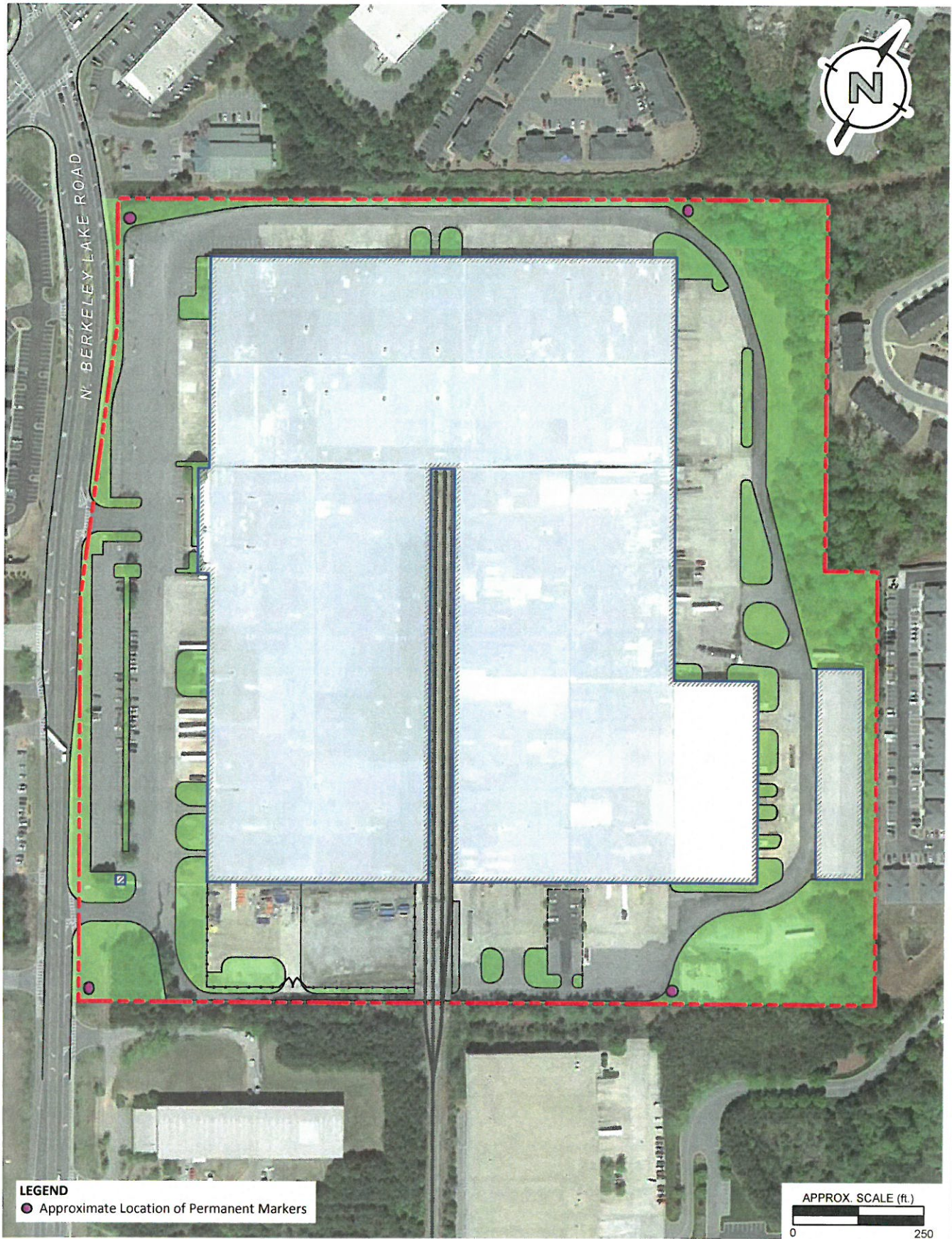
Advance notice to EPD must be provided for any planned future changes in the use of the Property that will significantly change the condition of the protective surface cover or otherwise significantly impact the engineering controls.

This MMP will be reviewed and revised as appropriate. If such revisions are necessary, the revised MMP will be submitted to EPD for review and approval within 60 days.

5 Reporting

The property owner shall complete and submit the Annual Evaluation Form provided in **Attachment B** to EPD annually by December 31. The cover letter for the Annual Evaluation Form shall include the name, mailing address, telephone number, facsimile number, and email of the person that EPD should contact regarding the requirements associated with the Property.

Attachment A
Property Layout



LEGEND
● Approximate Location of Permanent Markers

APPROX. SCALE (ft.)
0 250

C:\Users\brodriguez.ENVIRONCORP\Desktop\Projects\07\GRDC Final CSR 0730134C\02_Site Layout.dwg



SITE LAYOUT
NORTH BERKELEY LAKE ROAD SITE -
GWINNETT REGIONAL DISTRIBUTION CENTER - HSI No. 10844
3312 NORTH BERKELEY LAKE ROAD
DULUTH, GEORGIA

FIGURE
1

DRAFTED BY: ELS/APR

DATE: 2/9/15

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Attachment B

Annual Evaluation Form and Non-Scheduled Maintenance Log Form

ANNUAL EVALUATION FORM

North Berkeley Lake Road Site - Gwinnett Regional Distribution Center
3312 North Berkeley Road Northwest, Duluth, Gwinnett County, Georgia

TYPE	No.	CRITERIA RESPONSE	YES	NO
Land Use	1	Does this Property meet the definition of non-residential property as defined in HSRA Rule 391-3-19.02(2)? "Non-residential property means any property or portion of a property not currently being used for human habitation or for other purposes with a similar potential for human exposure, at which activities have been or are being conducted that can be categorized in one of the 1987 Standard Industrial Classification major group..."		
	1a	Has the use of the property changed or has construction occurred on the property?		
	1b	If no to 1 or yes to 1a, provide a written explanation to EPD with the subject Evaluation form.		
Exposure	2	Has there been any significant change in condition of the protective surface cover not previously identified to EPD? If yes, are corrective measures being taken? Provide a written explanation to the EPD with the subject Evaluation Form.		
Erosion	3	Is there evidence of soil erosion on the Property?		
	3a	If yes to 3, are corrective measures being taken? Provide a written explanation to the EPD with the subject Evaluation Form.		
Property Instruments/Markers	4a	Do all leases or other property instruments for the site have the applicable deed notice language inserted into them? (i.e. HSRA Rule 391-3-19-8 and O.C.G.A. 44.5-48.)		
	4b	Are permanent markers in place?		
	4c	If no to 4a or 4b, provide a written explanation (attached) to the EPD with the subject Evaluation Form.		
Inspection	5	Date of inspection:		
	5a	Name of inspector:		
	5b	Photographs with explanation showing current land use (attached):		

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (Please print or type)

Title

Signature

Date

NON-SCHEDULED MAINTENANCE FORM*

North Berkeley Lake Road Site - Gwinnett Regional Distribution Center
3312 North Berkeley Road Northwest, Duluth, Gwinnett County, Georgia

Date Issue Identified:

Name of Inspector:

Issue:

Protective Surface Cover:

Permanent Marker:

Description of the Protective Surface Cover or Permanent Marker Condition:

Severity of Observed Damage:

Start Date of Repair:

End Date of Repair:

Description of the Repairs:

*Non-Scheduled Maintenance Form to be used for documenting observations and maintenance activities that are not included in the Annual Evaluation. This form, and any other supporting materials, should be submitted to the EPD with the Annual Evaluation Form on December 31 of each calendar year.