

**BEFORE THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III**

IN THE MATTER OF:

Enterprise Avenue Landfill/	:	
Philadelphia International Airport	:	
Runway 8-26 Site Area Project,	:	
	:	Docket No. III-2001-0007-DC
	:	
City of Philadelphia,	:	
	:	
Respondent.	:	
	:	
Proceeding under Sections 106(a)	:	MODIFICATION No. 2
and 122(a) of the Comprehensive	:	
Environmental Response,	:	
Compensation, and Liability Act of 1980,	:	
as amended by the Superfund	:	
Amendments and Reauthorization Act	:	
of 1986, 42 U.S.C. §§ 9606(a) and 9622(a)	:	
	:	

**ADMINISTRATIVE ORDER BY CONSENT
FOR REMOVAL ACTION**

Pursuant to Paragraph 18.2 of Section XVIII (Effective Date and Subsequent Modification) of the June 5, 2002 Administrative Order by Consent for Removal Action, Docket No. III-2001-0007-DC (“Consent Order” or “Order”), and by the mutual agreement of the City of Philadelphia (“City”) and the U.S. Environmental Protection Agency (“EPA”), modifications to the Order are as follows:

III. FINDINGS OF FACT

Original Paragraph 3.28 shall be renumbered Paragraph 3.34 and the following paragraphs shall be added to the Findings of Fact:

3.28 The Western Boundary Area Mitigation System (“WBAMS”) operated from April 1997 until September 10, 2008 when EPA and the City modified the Order (Modification No. 1) to allow the City to discontinue the WBAMS and to perform an evaluation of Monitored Natural Attenuation and other remedial technologies to address groundwater contamination at the Site. The WBAMS has not been operated since it was shut down approximately 11 years ago;

however, all of the system components have remained in-place as a contingency for reactivation if needed.

3.29 Groundwater contaminants are bound as residuals in the naturally occurring low permeability alluvial silty clay (“QAL unit”) which extends under the Site; this QAL unit greatly restricts the groundwater movement.

3.30 The maximum concentration of contaminants detected in groundwater during the 2017 sampling event are listed in Appendix 1 to this Order.

3.31 Remedial technologies have been investigated¹ by the City, which has determined that none are feasible for implementation on-site to remediate groundwater and achieve MCLs on a site-wide basis in a time frame less than 200 years. These findings are described in the report entitled “Evaluation of Remedial Technologies for Runway 8-26” submitted to EPA by the City on June 25, 2010, and the analysis entitled “Technical Basis for Modifying the Work Required by the Administrative Order on Consent” submitted to EPA by the City in October 2021.

3.32 Contamination that is present in the groundwater is restricted by a low-permeability clay and continuous pumping of the nearby Mingo Creek by the United States Army Corps of Engineers, which is regularly undertaken to reduce the groundwater table to provide stability to the airport. Therefore, groundwater contamination is not expected to migrate laterally or vertically from its present location.

3.33 There are no private drinking water wells in the vicinity of the Site and the drinking water source for residents is a public water supply.

VIII. RESPONSE ACTION PLAN DEVELOPMENT AND IMPLEMENTATION

8.1 The City shall commence and complete the performance of the following actions (“Work”) pursuant to the Order as amended by this Modification No. 2.

8.2 Within forty-five (45) days of the Effective Date of this Modification No. 2, or such longer time as may be specified by EPA in its discretion, the City shall submit a modified Response Action Plan (“RAP”) (“Modified RAP No. 2”) to EPA, which shall include a Groundwater Monitoring Plan (“GMP”) and other work as listed in modified Paragraph 8.6, below. Modified RAP No. 2 shall be consistent with the NCP and subject to EPA approval in accordance with Paragraphs 8.4 and 8.8 of the Order.

8.6 The Work shall consist of the following, which the City shall accomplish in accordance with the terms of the Order as modified by this Modification No. 2, which supersedes Modification No. 1.

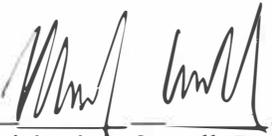
¹ Monitored natural attenuation, Enhanced In-Situ Bioremediation, and Permeable Reactive Barriers were considered and ultimately rejected for Site remediation.

1. Decommission the WBAMS and properly plug and abandon groundwater wells in accordance with the EPA approved Well Abandonment Plan dated May 14, 2021.
2. Notify EPA no less than sixty (60) days in advance of any construction projects or land use modifications in the area of the former landfill that could disrupt site conditions.
3. Conduct a comprehensive groundwater monitoring program in accordance with Modified RAP No. 2 and the GMP to confirm that water quality remains stable over time and that contaminants do not migrate from the Site at concentrations posing unacceptable risk to human health or the environment. The groundwater monitoring program shall provide for (1) a baseline groundwater sampling event to occur within ninety (90) days from the date upon which EPA approves the Modified RAP No. 2, and (2) groundwater sampling and analysis to occur every five (5) years beginning in 2026, the results of which will inform EPA's Five-Year Reviews for the Site. The numbers and locations of monitoring wells used to implement the GMP shall be approved by EPA.
4. Submit reports of the results of each groundwater monitoring event by email to Andrew Haneiko (haneiko.andrew@epa.gov) within sixty (60) days of each event.
5. Prepare a Sampling and Analysis Plan ("SAP") consisting of a Quality Assurance Project Plan ("QAPP") and Field Sampling Plan ("FSP") for sample collection, transportation, analysis, validation and reporting to be conducted pursuant to this Order. The SAP shall be submitted to EPA for review and approval as part of the Modified RAP No. 2, or if additional time is required, as such time as may be specified by EPA in its discretion. The FSP shall include the types, locations, and analytical parameters of samples. Selection of analytical methods shall be justified in conjunction with data quality objectives.
6. Provide Site-specific health and safety measures, including preparation and implementation of a health and safety plan ("HASP") to protect the health and safety of workers, other personnel and the public from Site contaminants when undertaking the work required by this Order. The HASP shall provide for proper documentation of personnel and equipment, monitoring and control of off-site migration of hazardous substances from the Site and protection of the public from exposure to hazardous substances. Applicable sections of the HASP shall be at least as stringent as the Occupational Safety and Health Administration and EPA requirements including but not limited to 29 C.F.R. § 1910.120.
7. Notify EPA by email to Andrew Haneiko (haneiko.andrew@epa.gov) not less than thirty (30) days in advance of any groundwater sampling activity undertaken as required by this Order. The City shall allow split or duplicate samples to be taken by EPA if requested by EPA.
8. Obtain a Hazardous Waste Generator Identification Number in accordance with the regulations set forth at 40 C.F.R. Part 262 and any applicable Commonwealth regulations.

9. Devise and implement a Contingency Plan for Remedial Action(s) to be undertaken by the City if groundwater monitoring indicates that contaminant concentrations have increased by an order of magnitude from the baseline sampling event or have migrated off-site at levels that pose an unacceptable risk to human health or the environment. The Contingency Plan for Remedial Action, together with the GMP and any other work required by this Paragraph 8.6, shall be included in the Modified RAP No. 2.

Except for the modifications set forth herein, which supersede the previous paragraphs so numbered, all other provisions of the Order shall remain in effect.

FOR THE CITY:

BY: 
Michael A. Carroll, Deputy Managing Director
Transportation, Infrastructure and Sustainability
City of Philadelphia

DATE 12/15/2022

Approved as to form:

BY: 
Scott Schwarz
Chief Deputy City Solicitor
City of Philadelphia

DATE 12/13/2022

FOR THE EPA:

BY: _____
Paul Leonard, Director
Superfund and Emergency Management Division
U.S. EPA Region 3

DATE _____

**Enterprise Avenue Landfill/
Philadelphia International Airport
Runway 8-26 Site Area Project**

**Administrative Order by Consent for Removal Action
Modification No. 2**

Appendix 1

Groundwater Sampling Data (05/16/2017)

COC	MCL (µg/L)	Well			
		LF-2	LF-3	LF-4	LF-5
Benzene	5	880	110	120	0.8J
Chlorobenzene	100	7700	1700	1100	10
1, 1 DCE	7	ND	ND	ND	ND
cis-1,2 DCE	70	ND	ND	ND	ND
trans-1,2 DCE	100	ND	ND	ND	ND
Vinyl Chloride	2	53	ND	ND	ND