



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III
STATEMENT OF BASIS
Kelly Run Sanitation Inc.
Elizabeth, PA
PAD 004 810 222

I. Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the Kelly Run Sanitation Inc. facility located at 1500 Hayden Boulevard, Elizabeth, Allegheny County, Pennsylvania (Facility). EPA's proposed remedy consists of the following:

- operation, maintenance and inspection of the landfill caps;
- monitoring of the groundwater, surface water and leachate;
- operation and maintenance of the leachate detection and collection system;
- operation and maintenance of the existing groundwater remediation system; and
- compliance with and maintenance of institutional controls that restrict certain land and groundwater uses at the entire Facility.

The operation, maintenance and monitoring components of EPA's proposed remedy are being implemented under the Facility's state-issued RCRA Post-Closure Permit and Municipal Solid Waste Operating Permit, described more fully below.

This SB highlights key information relied upon by EPA in making its proposed remedy.

The Facility is subject to EPA's Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. §§ 6901 et seq. (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and hazardous constituents that have occurred at their property. Pennsylvania is not authorized for the Corrective Action Program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the Commonwealth for the Corrective Action Program.

The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which EPA's proposed decision is based. See Section IX, Public Participation, for information on how you may review the AR.

II. Facility Background

The Facility property consists of approximately 390 acres and is surrounded by woodlands, farms and residential properties. A location map is attached as Figure 1.

The Facility has operated as a waste disposal facility since 1965. The Facility has five

disposal areas, as described below.

- A 17-acre disposal area, identified as the Old Waste Area (OWA), operated as a pre-RCRA landfill. It was closed in early 1970's and capped in 1997.
- A 35-acre area, identified as the Western Disposal Area (WDA), is a closed RCRA hazardous waste landfill. It operated from 1975 to 1984. It was constructed with a clay liner and a leachate collection system. The Pennsylvania Department of the Environment (PADEP) issued a closure and post-closure permit for the WDA in 1992. The WDA was capped in 1994.
- Three PADEP-permitted municipal waste disposal areas exist at the Facility:
 - a 9-acre area, identified as Phase 1 Area, was permitted in 1991 and capped in 1996;
 - a 19-acre area, identified as Phase 2 Area, was permitted in 1995 and capped in 1998; and
 - a 48-acre area, identified as Phase 3 Area, was permitted in 1997 and is still an active municipal waste landfill area.

The WDA is currently maintained and monitored under a RCRA Post-Closure Permit, Permit No. PAD 004 810 222 (Post-Closure Permit), issued by PADEP on February 7, 1992 and renewed on August 14, 2006. The remaining landfill areas are maintained and monitored under PADEP Municipal Solid Waste Operating Permit No. 100663 (Solid Waste Permit), issued by PADEP on September 14, 1990 and renewed on April, 21, 2011.

The Facility's Post-Closure Permit and Solid Waste Permit prohibit any use of the Facility, other than as a municipal landfill, while the Phase 3 Area is operated as a municipal landfill. The permits also impose operation, maintenance and monitoring requirements on the entire Facility. As part of the post-closure care and operating requirements in those permits, the Facility conducts quarterly groundwater monitoring to assess releases from the disposal areas and maintains the integrity and protectiveness of the landfill caps. The monitoring system for the landfills includes 21 wells (Figures 2 and 3). Surface water samples are collected at 7 locations surrounding the disposal areas (Figure 4). In addition, the Facility operates a leachate collection system, a groundwater remediation system, and a methane monitoring system. Leachate and contaminated groundwater from the Facility are sent to the Elizabeth Borough Municipal Treatment Authority wastewater treatment plant for treatment.

III. Summary of Environmental Investigation

The Facility monitors the groundwater and surface water with quarterly sampling, in accordance with the Post-Closure Permit and the Solid Waste Permit. Groundwater and surface water samples are analyzed for metals, organic compounds and general chemistry parameters. Prior to the operation of the groundwater remediation system in 1996, the groundwater was contaminated with benzene, toluene, ethyl benzene and xylene (BTEX), chlorides and naphthalene. Current groundwater sampling data show that only benzene remains as a contaminant of concern. The contamination is localized under the five disposal areas. Surface water samples show no detectable levels of organic contamination.

During 2010 and the first quarter of 2011, benzene was the only contaminant detected above the Maximum Contaminant Level (MCL) for that contaminant promulgated at 40 C.F.R. Part 141 pursuant to Section 1412 of the Safe Drinking Water Act, 42 U.S.C. Section 300g-1, and the Pennsylvania's residential statewide health standards (SHSs) as summarized below:

Location	Benzene	Number of Quarters above Screening Levels	EPA MCL	PA Residential/Non-Residential Statewide Health Standards
MW-302-R	10.9 to 49.5 ug/l	5	5 ug/l	5 ug/l
MW-303-R	10.0 to 112 ug/l	4	5 ug/l	5 ug/l

Wells MW-302-R and MW-303-R are adjacent wells and are located within the disposal areas. MW-303-R is a recovery well for groundwater remediation at the Facility. The Post-Closure Permit requires the Facility to pump that well at the maximum sustainable rate on a continuous basis until the performance standard, 5 ug/l benzene, is attained. Monitoring at the other wells and at the surface water locations documents that the benzene contamination is not migrating.

IV. Corrective Action Objectives

EPA's Corrective Action Objectives for the Facility are the following:

1. Soils

EPA's Corrective Action Objective for Facility soils is to control human and environmental exposure to the hazardous constituents remaining in the soil.

2. Groundwater

EPA's corrective action objectives for groundwater at the Facility are to reduce contaminant levels throughout the groundwater to MCLs, and to prevent off-site migration of contaminants while levels remain above MCLs.

V. Proposed Remedy

1. Soils

EPA is proposing the operation, maintenance and inspection of the Facility's landfill caps in order to assure continued protection of human health and the environment at the Facility. In addition, because contaminants will remain in Facility soils above levels appropriate for residential and non-residential uses, this proposed remedy requires that land use restrictions be implemented through

institutional controls (ICs) in order to minimize the potential for human exposure to contamination and protect the integrity of the remedy. ICs are non-engineered instruments such as administrative and/or legal controls that minimize the potential for human exposure to contamination and/or protect the integrity of the remedy by limiting land or resource use.

2. Groundwater

Under this proposed remedy, EPA is requiring the following actions:

- a. monitoring of the groundwater, surface water and leachate;
- b. operation and maintenance of the leachate detection and collection system;
- c. operation and maintenance of the existing groundwater remediation system; and
- d. compliance with and maintenance of institutional controls that restrict groundwater use at the Facility.

EPA proposes to require the above listed actions until benzene concentrations in the groundwater under the Facility meet the corrective action objective of 5 ug/l. The benzene contaminated groundwater is not migrating beyond the Facility boundary. The Facility operates a groundwater treatment and monitoring system to maintain and document compliance with MCLs at and beyond the Facility boundary.

3. Implementation

The operation, maintenance and monitoring activities required by the proposed remedy are already requirements under the Post-Closure Permit and Solid Waste Permit, both of which were issued and are enforceable by PADEP. Those permits require Kelly Run Sanitation Inc. to operate and maintain the caps and to inspect them annually; to monitor the groundwater, surface water and leachate on a quarterly basis; to operate and maintain the leachate detection and collection system; and to operate and maintain the existing groundwater remediation system.

With respect to land and groundwater use restrictions, while the Facility is operated as a landfill, the Post-Closure Permit and Solid Waste Permit restrict land and groundwater uses for any other purpose other than as a landfill. EPA anticipates that when the landfill is no longer operating, the Facility's Post-Closure Permit will require compliance with and maintenance of land and groundwater use restrictions that minimize the potential for human exposure to contamination and protect the integrity of the remedy. If at any time EPA determines that additional land and groundwater use restrictions are necessary, EPA may require their implementation through an enforceable document such as an agreement and/or an Environmental Covenant to be entered pursuant to the Pennsylvania Uniform Environmental Covenants Act, 27 Pa. C.S. Sections 6501-6517, (UECA) and recorded in the chain of title for the Facility property.

VI. Evaluation of EPA's Proposed Decision

The following is a summary of EPA's evaluation of the proposed remedy for the Facility:

A. Threshold Criteria

1. Protect Human Health and the Environment

With respect to groundwater, while low levels of contaminants remain in the groundwater beneath the Facility, the contaminants are contained in the shallow aquifer and do not migrate beyond the disposal areas on the Facility property. Moreover, the area of contaminated groundwater is contained and is under active remediation. The PADEP- issued permits do not allow use of contaminated groundwater as a drinking water source. With respect to future uses, the proposed remedy requires groundwater use restrictions to minimize the potential for human exposure to contamination and protect the integrity of the remedy.

With respect to Facility soils, all contaminated soil and waste is contained within disposal cells. The completed disposal areas are capped with engineered covers to prevent direct exposure and contaminant migration. The PADEP- issued permits do not allow other uses of Facility property while the Facility is operating as a landfill. With respect to future uses, EPA requires land use restrictions in order to minimize the potential for human exposure to contamination and protect the integrity of the remedy.

2. Achieve Media Cleanup Objectives for Soil and Groundwater

The Facility has achieved MCLs at the perimeter of the waste disposal areas. The area of contaminated groundwater is contained under the waste disposal areas and is under active remediation. Under the Post-Closure Permit, the Facility is required to pump the groundwater from the contaminated areas at the maximum sustainable rate on a continuous basis until the MCL for benzene, 5 ug/l, is attained.

EPA's proposed final remedy also requires the implementation and maintenance of institutional controls to minimize the potential for human exposure to contamination and protect the integrity of the remedy.

3. Remediating the Source of Releases

In all remedy decisions, EPA seeks to eliminate or reduce further releases of hazardous wastes or hazardous constituents that may pose a threat to human health and the environment. The Post-Closure Permit and Solid Waste Permit impose strict controls on the Facility to prevent the release of contaminants into the environment. These controls include the collection and treatment of leachate generated at the disposal areas and the maintenance of engineered caps over the disposal areas.

B. Balancing/Evaluation Criteria

1. Long-Term Effectiveness

The proposed remedy will maintain protection of human health and the environment over time by controlling exposure to the hazardous constituents remaining in soils and groundwater. EPA's proposed remedy requires the compliance with and maintenance of land use and groundwater use restrictions at the Facility.

2. Reduction of Toxicity, Mobility, or Volume of the Hazardous Constituents

The reduction of toxicity, mobility and volume of hazardous constituents at the Facility has already been achieved by the construction and operation of the groundwater treatment system and the leachate collection system.

3. Short-Term Effectiveness

EPA's proposed final remedy does not involve any activities, such as construction or excavation, that would pose short-term risks workers, residents, and the environment.

4. Implementability

EPA's proposed remedy is readily implementable. The necessary components of the landfill caps; the groundwater, surface water and leachate monitoring systems; and the groundwater treatment and leachate collection systems are in place and are currently operational. In addition, the Post-Closure Permit and Solid Waste Permit impose current land and groundwater use restrictions that minimize the potential for human exposure to contamination and/or protect the integrity of the proposed remedy. EPA also anticipates that the Post-Closure Permit will restrict future land and groundwater uses. Therefore, EPA does not anticipate any regulatory constraints in implementing its proposed remedy.

5. Cost

The capital costs associated with the installation of the landfill caps; the groundwater, surface water and leachate monitoring systems; the groundwater treatment and leachate collection systems; and the groundwater treatment system have already been incurred. The remaining costs are minimal.

6. Community Acceptance

EPA will evaluate Community acceptance of the proposed remedy during the public comment period and will be described in the Final Decision and Response to Comments (FDRTC).

7. State/Support Agency Acceptance

EPA will evaluate State acceptance based on comments received from PADEP during the public comment period and will be described in the FDRTC.

VII. Environmental Indicators

EPA sets national goals to measure progress toward meeting the nation's major environmental goals. For Corrective Action, EPA evaluates two key environmental indicators for each facility: (1) current human exposures under control and (2) migration of contaminated groundwater under control. The Facility met these indicators on March 13, 2000.

VIII. Financial Assurance

EPA has evaluated whether financial assurance for corrective action is necessary to implement EPA's proposed remedy at the Facility. Under its Post-Closure Permit and Solid Waste Permit, the Facility maintains financial assurance in surety bonds in the amount of \$12,615,159. That amount is sufficient for operating and maintaining the landfill caps; the groundwater, surface water and leachate monitoring systems; and the groundwater treatment and leachate collection systems and for implementing the ICs.

IX. Public Participation

Before EPA makes a final decision on its proposal for the Facility, the public may participate in the remedy selection process by reviewing this SB and documents contained in the Administrative Record (AR) for the Facility. The AR contains all information considered by EPA in reaching this proposed decision. It is available for public review during normal business hours at:

U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103
Contact: Maureen Essenthier
Phone: (215) 814-3416
Fax: (215) 814-3113
Email: essenthier.maureen@epa.gov

Interested parties are encouraged to review the AR and comment on EPA's proposed decision. The public comment period will last forty-five (45) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Maureen Essenthier. EPA will hold a public meeting to discuss this proposed decision upon request. Requests for a public meeting should be made to Maureen Essenthier.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrant a modification to the proposed decision, EPA will modify the proposed decision or select other alternatives based on such new information and/or public comments. EPA will announce its final decision and explain the rationale for any changes in a

document entitled the FDRTC. All persons who comment on this proposed decision will receive a copy of the FDRTC. Others may obtain a copy by contacting Maureen Essenthier at the address listed above.

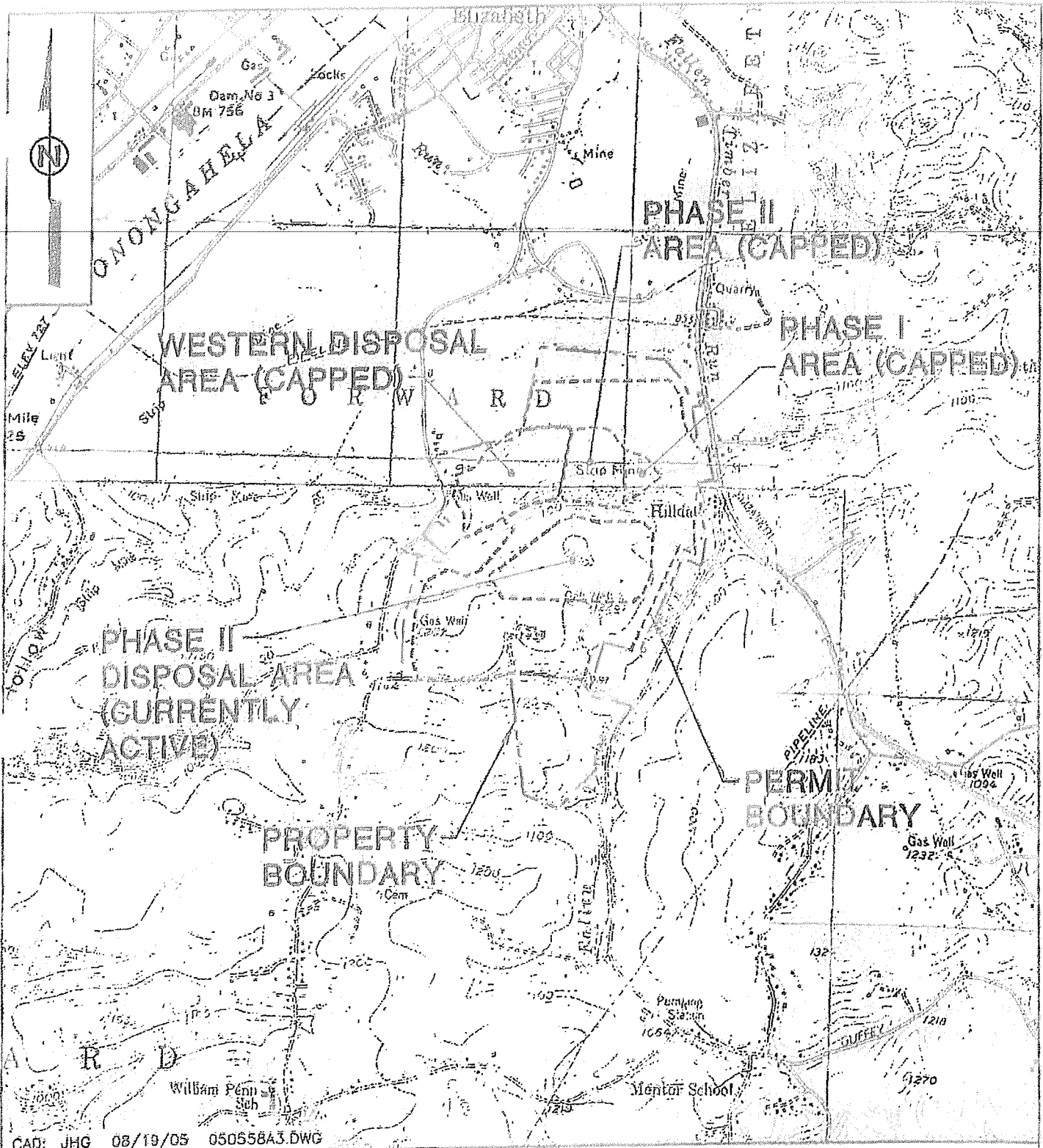
Concurrently with this SB, EPA is soliciting comments on a draft federal permit to be issued under Section 3004(u) of RCRA, 42 U.S.C. § 6924. The draft federal permit incorporates the Facility's Post-Closure Permit and Solid Waste Permit.

EPA will make a decision on the draft federal permit after considering the information submitted during the public comment period. The final federal permit will be signed concurrently with the Final Decision and both will become effective upon signature. The Final Decision will be incorporated into the final federal permit and made a part thereof.

Date: 11/23/2011

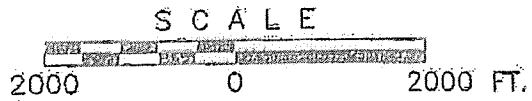
original signed

Abraham Ferdas, Director
Waste and Chemicals Management Division
US EPA, Region III



CAD: JHG 08/19/05 050558A3.DWG

REFERENCE
 U.S.G.S. 7.5 MINUTE TOPOGRAPHIC
 QUADRANGLE MAPS OF GLASSPORT,
 MCKESSPORT, MONOGAHELA AND DONORA, PA



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U.S.G.S. SITE LOCATION MAP
 KELLY RUN LANDFILL
 PERMIT NO. 100663

DWN. BY: JHG	SCALE: AS SHOWN	DATE: 08/19/05	PROJECT NO: 050558	FIGURE NO. 1
CHKD. BY: K				

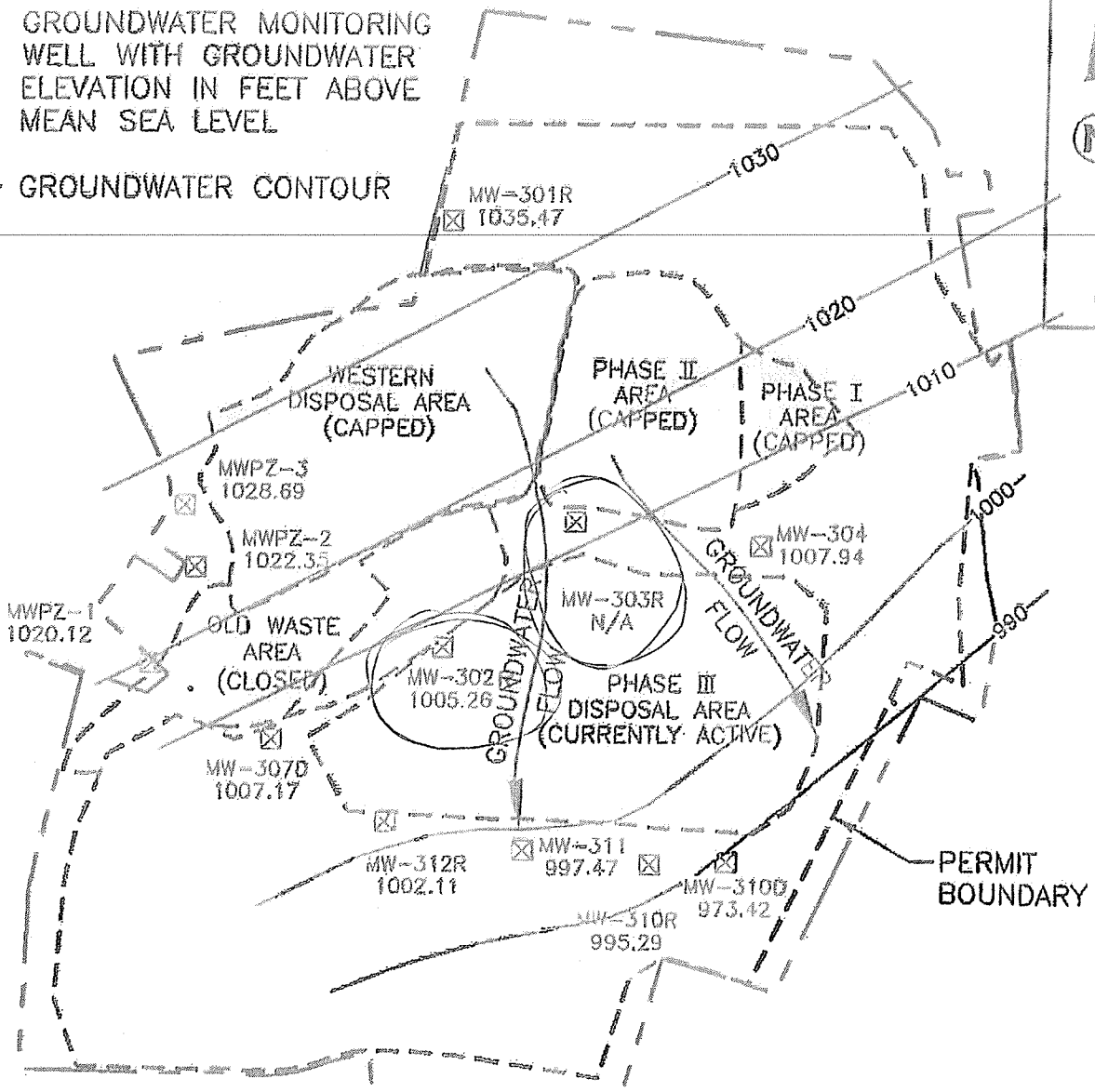
LEGEND

☒ MW-304
1007.94

GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL

1020

GROUNDWATER CONTOUR



i (MW-302 to MW-311) = 0.0081 ft/ft
 k = 3.23 ft/day
 ϕ = 10%
 V = 0.262 ft/day (95.6 ft/yr)
 MEASURED MARCH 8-10, 2010

NOTE:

1. THE WATER LEVELS PRESENTED HEREIN ARE APPLICABLE TO THE LOCATION AND TIME OF MEASUREMENT. WATER LEVELS MAY FLUCTUATE THROUGH TIME.



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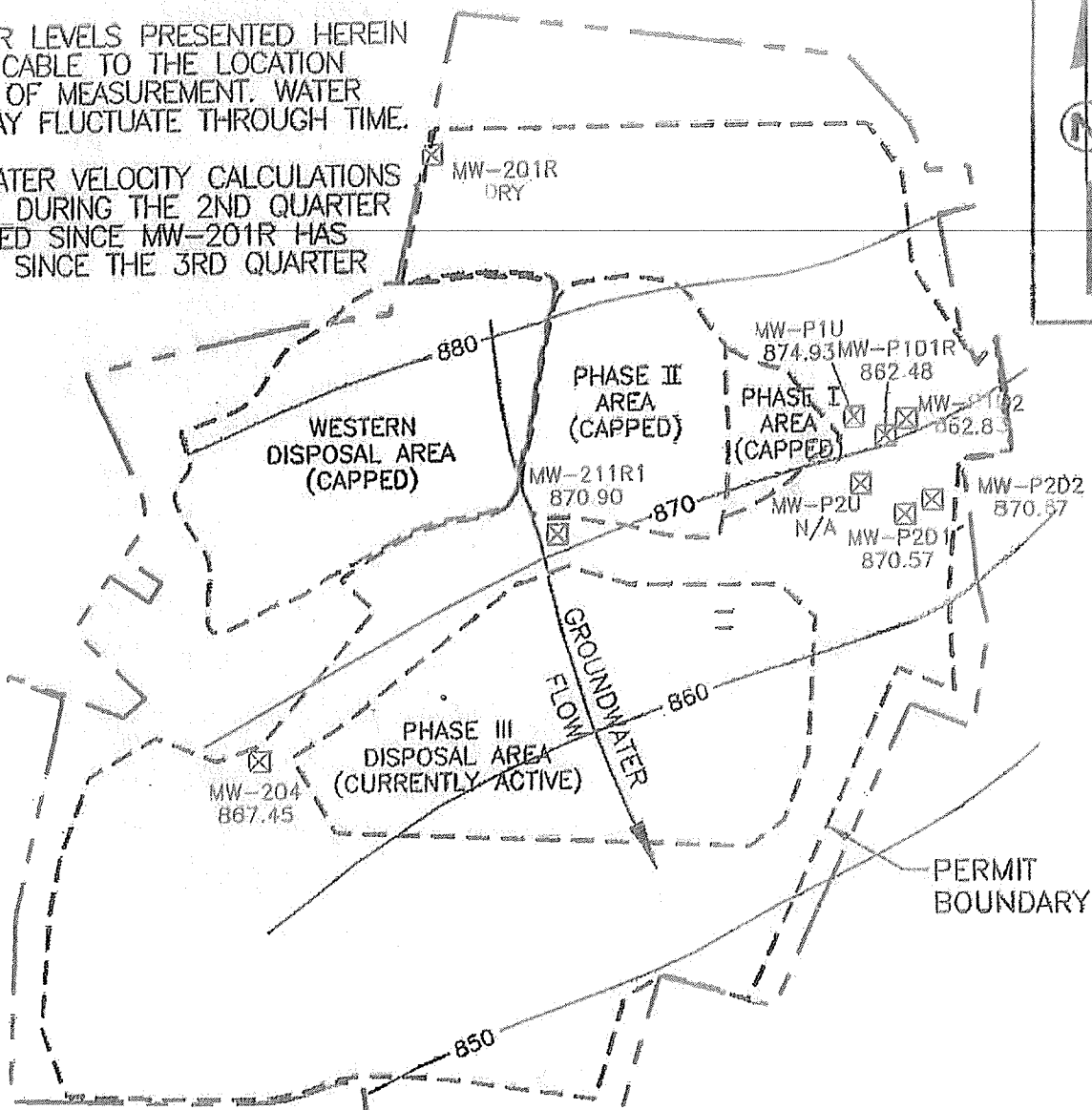
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BENWOOD LIMESTONE
 POTENTIOMETRIC MAP
 KELLY RUN LANDFILL
 PERMIT NO. 100663

DWN. BY: JHG	SCALE: AS SHOWN	DATE: 05/04/10	PROJECT NO: 050-558.0110	FIGURE NO. 2
CHKD. BY: JHG				

NOTE:

1. THE WATER LEVELS PRESENTED HEREIN ARE APPLICABLE TO THE LOCATION AND TIME OF MEASUREMENT. WATER LEVELS MAY FLUCTUATE THROUGH TIME.
2. GROUNDWATER VELOCITY CALCULATIONS MEASURED DURING THE 2ND QUARTER 2009 LISTED SINCE MW-201R HAS BEEN DRY SINCE THE 3RD QUARTER 2009.



$i(MW-201R \text{ to } MW-211R1) = 0.009 \text{ ft/ft}$
 $k = 2.103 \text{ ft/day}$
 $\phi = 10\%$
 $V = 0.189 \text{ ft/day (69 ft/yr)}$
 MEASURED MAY 4-6, 2009

LEGEND

- GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 MW-P2D1 870.57
- GROUNDWATER CONTOUR
 870



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PITTSBURGH COAL
 POTENTIOMETRIC MAP
 KELLY RUN LANDFILL
 PERMIT NO. 100663

DWN BY: JHG	SCALE: AS SHOWN	DATE: 05/04/10	PROJECT NO: 050-558.0110	FIGURE NO. 3
CHKD. BY: JSF				



PROPERTY
BOUNDARY

WESTERN
DISPOSAL AREA
(CAPPED)

PHASE II
AREA
(CAPPED)

PHASE I
AREA
(CAPPED)

PHASE III
DISPOSAL AREA
(CURRENTLY ACTIVE)

PERMIT
BOUNDARY

TR-2

SP-W

SS-3

SP-5

ST-5

ST-1

ST-2

SCALE

800 0 800 FT.



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**SURFACE WATER MONITORING
LOCATION MAP
KELLY RUN LANDFILL
PERMIT NO. 100663**

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DWN. BY: JHG
CHKD. BY: *Ry*

SCALE:
AS SHOWN

DATE:
08/19/05

PROJECT NO:
050558

FIGURE *A*