January 31, 2025

Mr. Matthew Barch, P.G.
Licensed Professional Geologist
Pennsylvania Department of Environmental Protection
Bureau of Waste Management
400 Waterfront Drive
Pittsburgh, Pennsylvania 15222-4745

Dear Mr. Barch:

Subject: Response to Comments
Minor Permit Modification Application
Groundwater Monitoring Point PZ-6A
Westmoreland Sanitary Landfill
Rostraver Township, Westmoreland County, Pennsylvania
Permit I.D. No. 100277
Authorization No. 1513310
CEC Project 334-863

On behalf of Westmoreland Sanitary Landfill, LLC (WSL), Civil & Environmental Consultants, Inc. (CEC) is submitting one (1) electronic copy of the enclosed response to comments for the Westmoreland Sanitary Landfill minor permit modification to add groundwater monitoring point PZ-6A to WSL's permanent groundwater monitoring network.

This submittal is being made in response to the Pennsylvania Department of Environmental Protection (DEP) letter dated January 30, 2025. The DEP's comments from the January 30, 2025 letter are provided below verbatim in bold type, followed by WSL's response.

1. **The monitoring point presented for inclusion into the Water Quality Monitoring Network was identified in the application as PZ-6A. The monitoring point was identified as such in the attached Groundwater Monitoring Plan, and the Piezometer Log. The monitoring point was identified in the Form 18: Water Quality Monitoring System Phase II as PZ-6AU. As this monitoring point will be inserted into the permit as a permanent monitoring point, the name of the monitoring point must be consistent throughout the application.**

   The applicant should determine the correct name designated for this monitoring point. The applicant should revise the incorrect documents to represent the corrected name of the monitoring point. The corrected documents should be submitted to the Department via the public upload tool.

   RESPONSE: Form 18 has been revised to identify the monitoring point as PZ-6A. The revised form is attached.

We trust this submittal is sufficient for the DEP to complete review of the application. However, if you have any questions or require additional information, please contact either Mr. Brian Stewart at (412) 576-2236 or CEC at (724) 327-5200.

Very truly yours,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Jill R. Hamill, P.E.
Project Manager

Robert C. Dlugos, P.G.
Vice President

JRH:RCD/jg
Attachments

cc: Brian Stewart, P.E.

L-334863.Jan31/P

FORM 18
WATER QUALITY MONITORING SYSTEM

2540-PM-BWM0040 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised January 2025
DEP USE ONLY
Date Received

FORM 18
WATER QUALITY MONITORING SYSTEM
PHASE II

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 18, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Sections 273.281-273.283, 277.281-277.283, 279.233, 281.254, 283.233

SECTION A. SITE IDENTIFIER

Applicant/permittee: Westmoreland Sanitary Landfill, LLC

Site Name: Sanitary Landfill

Facility ID (as issued by DEP): 100277

SECTION B. FACILITY INFORMATION

County: Westmoreland

Township or Municipality: Rostraver Township

Anniversary Date (mm/dd/yyyy): 02/08/1982

Owner/Operator: Westmoreland Sanitary Landfill, LLC

Address: 111 Conner Lane, Belle Vernon, PA 15012

Phone: 724-929-7694

Consultant: Eagon & Associates, Inc

Address: 445 Hutchinson Ave., Suite 900, Columbus, OH 43235

Phone: 614-888-5760

Driller: Keystone Water Systems (Driller for PZ-6A) License Number: 2211

Address:

Phone:

To be submitted on completion of Ground Water Monitoring System and prior to Phase II approval.

SECTION C. GENERAL MONITORING INFORMATION (Attach Additional Sheets As Needed)

Total Number of Monitoring Points (including wells, springs, etc.) 24

Number of Upgradient Wells 3

Number of Downgradient Wells 12

Number of leachate detection monitoring points 4

Number of monitoring points other than wells or leachate detection monitoring points 5

Description of other monitoring points Surface water sites along Speers Run and the unnamed tributary to the Monongahela River

Number of water-bearing zones monitored 4

Characterization of water-bearing zones monitored (thickness, lithology, grain size, etc.) 1) Benwood Limestone - 40'+ fractured argillaceous marl. 2) Rock/Soil Interface - Redstone coal horizon, mined out. 3) Pittsburgh Coal - 6' thick. 4) Pittsburgh Limestone - 40'+ thick shale and argillaceous limestone

Name and Date of Topographic Map Donora, PA 7 1/2', 1954 (Photorevised 1979)

DEP topographic map code: 1707

SECTION D. MONITORING POINT GEOGRAPHIC AND HYDROGEOLOGIC DESCRIPTORS

ALL MONITORING POINTS MUST HAVE AN ASSOCIATED LATITUDE AND LONGITUDE DETERMINED ACCURATELY TO THE NEAREST ONE TENTH OF A SECOND (DD' MM' SS.S'). USE ABBREVIATIONS/ CODES LISTED ON PAGE 4 WHERE APPROPRIATE.

When additional space is needed use copies of this format.

Monitoring Point Number (1)	PZ-6A	MP-1RD	MP-2RD	MP-3RD
Latitude	40° 09' 21.23"	40° 08' 48.48"	40° 08' 53.34"	40° 08' 55.53"
Longitude	79° 51' 26.13"	79° 51' 03.31"	79° 51' 01.99"	79° 51' 01.36"
Method of measurement for Lat/Long (2)	SD	SD	SD	SD
Type of Monitoring Point (3)	W	W	W	W
Monitoring Point Function (4)	U	D	D	D
USGS Aquifer Code (5)	321 RDSNC	321 BNWD	321 BNWD	321 BNWD
MONITORING WELL INFORMATION				
Drilling Method (6)	AR	AR	AR	AR
Completion Date (mm/dd/yyyy)	03/05/1999	10/03/2002	10/03/2002	10/03/2002
Total Depth (ft.)	83.5	72.60	111.39	110.03
Depth to Bottom of Casing (ft.)	78.0	51.43	91.64	90.28
Ground Surface Elevation	1095.72	1080.16	1123.36	1123.76
Measuring Point Elevation (7)	1096.87	1081.58	1126.67	1126.23
Method of Measuring Elevation (9)	SD	SD	SD	SD
Measuring Point Description (10)	TWC	TWC	TWC	TWC`
Exposed Casing - above ground surface (ft.)	1.15	1.42	3.31	2.47
Well Casing Material (11)	PVC	PVC	PVC	PVC
Well Casing Diameter (in.)	2	2	2	2
Monitoring Point Number (1)	PZ-6A	MP-1RD	MP-2RD	MP-3RD
Depth to top of screened Interval (ft)	78	51.43	91.64	90.28
Depth to bottom of screened Interval (ft)	83	71.18	111.39	110.03
Screen Slot Size (in.)	Unknown	0.010"	0.010"	0.010"
Screen Material Type (11)	PVC	PVC	PVC	PVC
Packing Material Diameter (in.)	0.039	0.039	0.039	0.039
Packing Material Type (12)	CQ	CQ	CQ	CQ
Interval Grouted (Depth Range, ft.)	0-69	0-41.4'	0-84.6'	0-80.3'
Grout Type (13)	C	CBM	CBM	CBM
Annular Thickness of Grout (in.)	2	2	2	2
Protective Casing Diameter (in.)	6	6	6	6
Protective Casing Material (11)	OT (Steel)	OT (Steel)	OT (Steel)	OT (Steel)

MONITORING WELL INFORMATION (Continued)				
Protective Casing Grout Type (13)	C	CBM	CBM	CBM
Concrete Collar Placed - 3 foot minimum diameter	N/A	2' by 2'	2' by 2'	2' by 2'
Locking Cap (Y/N)	Y	Y	Y	Y
Sampling Device (14)	BLA	BLA	BLA	BLA
Dedicated Sampling Device (Y/N)	Y	Y	Y	Y
Sample Pump Capacity (gpm)	>1	>1	>1	>1
Sample Port Diameter (in.)	0.25	0.17	0.17	0.17
Dedicated Bailer (Y/N)	N	N	N	N
Use of Water Other Than Monitoring (15)	None	None	None	None
Type of Well Logs (16)	LI	LI	LI	LI
Type of Pump Used for Aquifer Testing (14)				
Pump Capacity for Aquifer Test (GPM)				
Depth to Aquifer Test Pump (ft.)				
GPM Pumped or Bailed for Test Intake (ft.)				
Static Water Level-Initial for Pump Test (7)				
Final Water Level for Pump Test (7)				
Monitoring Point Number (1)	PZ-6A	MP-1RD	MP-2RD	MP-3RD
Drawdown for Aquifer Test (ft.)				
Length of Aquifer Test (min.)				
Date of Aquifer Test (mm/dd/yyyy)				
Specific Capacity (gpm/ft)				
Transmissivity (gpd/ft)				
Storage Coefficient				
Hydraulic Conductivity (gpd/ft2)				
SPRING INFORMATION				
Monitoring Point Number (1)	SWM-1	SWM-2	SWM-3	SWM-4
Discharge Point Elevation (7)	893.79	904.71	838.20	818.23
Perennial (Y/N)	Y	Y	Y	Y
Flow Rate (gpm)	DRY	36	48	DRY
Method of Measurement (17)	SW	SW	SW	SW
Date of Measurement (mm/dd/yyyy)	5/13/99	5/13/99	5/13/99	5/13/99
Sampling Method (grab (G), composited (C)	G	G	G	G

SECTION D. MONITORING POINT GEOGRAPHIC AND HYDROGEOLOGIC DESCRIPTORS

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When additional space is needed use copies of this format.

Monitoring Point Number (1)	W-1U	W-2RD	W-3RD	W-5D
Latitude	40° 08' 53.5"	40° 06' 47.5"	40° 06' 53.2"	40° 06' 59.5"
Longitude	79° 51' 37.5"	79° 51' 17.2"	79° 51' 16.5"	79° 51' 02.3"
Method of measurement for Lat/Long (2)	SD	SD	UQ	SD
Type of Monitoring Point (3)	Well	Well	W	Well
Monitoring Point Function (4)	D	D	D	D
USGS Aquifer Code (5)	321 PBRGC	321 PBRGC	321 PBRGC	321 PBRGC
MONITORING WELL INFORMATION				
Drilling Method (6)	AR	AR	AR	AR
Completion Date (mm/dd/yyyy)	09/22/1990	03/06/1991	11/21/1989	10/24/1990
Total Depth (ft.)	148.68	58.11	234.63	226.33
Depth to Bottom of Casing (ft.)	138.68	48.11	224.63	216.32
Ground Surface Elevation	1055.68	944.61	1103.21	1099.88
Measuring Point Elevation (7)	1057.20	946.60	1105.78	1101.86
Method of Measuring Elevation (9)	SD	SD	SD	SD
Measuring Point Description (10)	TWC	TWC	TWC	TWC
Exposed Casing - above ground surface (ft.)	1.52	1.99	2.57	1.97
Well Casing Material (11)	PVC	PVC	PVC	PVC
Well Casing Diameter (in.)	4	4	2	4
Monitoring Point Number (1)	W-1U	W-2RD	W-3RD	W-5D
Depth to top of screened Interval (ft)	138.68	48.11	224.63	216.32
Depth to bottom of screened Interval (ft)	148.68	58.11	234.63	226.32
Screen Slot Size (in.)	0.020"	0.020"	0.020"	0.020"
Screen Material Type (11)	PVC	PVC	PVC	PVC
Packing Material Diameter (in.)	0.039	0.039	0.039	0.039
Packing Material Type (12)	CQ	CQ	CQ	CQ
Interval Grouted (Depth Range, ft.)	0-136.0	0-45	0-218	0-206
Grout Type (13)	CBM	CBM	CBM	CBM
Annular Thickness of Grout (in.)	2	2	2	2
Protective Casing Diameter (in.)	8	8	8	8
Protective Casing Material (11)	OT (Steel)	OT (Steel)	OT (Steel)	OT (Steel)

MONITORING WELL INFORMATION (Continued)				
Protective Casing Grout Type (13)	C	C	C	C
Concrete Collar Placed - 3 foot minimum diameter				
Locking Cap (Y/N)	Y	Y	Y	Y
Sampling Device (14)	BAI	BLA	BLA	BLA
Dedicated Sampling Device (Y/N)	Y	Y	Y	Y
Sample Pump Capacity (gpm)	N/A	>1	>1	>1
Sample Port Diameter (in.)	N/A	0.25	0.17	0.25
Dedicated Bailer (Y/N)	Y	N	N	N
Use of Water Other Than Monitoring (15)	None	None	None	None
Type of Well Logs (16)	LI	LI	DR	LI
Type of Pump Used for Aquifer Testing (14)				
Pump Capacity for Aquifer Test (GPM)				
Depth to Aquifer Test Pump (ft.)				
GPM Pumped or Bailed for Test Intake (ft.)				
Static Water Level-Initial for Pump Test (7)				
Final Water Level for Pump Test (7)				
Monitoring Point Number (1)	W-1U	W-2RD	W-3RD	W-5D
Drawdown for Aquifer Test (ft.)				
Length of Aquifer Test (min.)				
Date of Aquifer Test (mm/dd/yyyy)				
Specific Capacity (gpm/ft)				
Transmissivity (gpd/ft)				
Storage Coefficient				
Hydraulic Conductivity (gpd/ft2)				
SPRING INFORMATION				
Monitoring Point Number (1)	MD-1			
Discharge Point Elevation (7)	950.0			
Perennial (Y/N)	Y			
Flow Rate (gpm)	1122			
Method of Measurement (17)	SW			
Date of Measurement (mm/dd/yyyy)	3/17/99			
Sampling Method (grab (G), composited (C)	G			

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Monitoring Point Number (1)	W-6U	W-7RD	W-9R2	W-10R
Latitude	40° 06' 52.3"	40° 08' 43.0"	40° 08' 58.4"	40° 08' 48.8"
Longitude	79° 51' 37.8"	79° 51' 11.2"	79° 50' 59.0"	79° 51' 02.9"
Method of measurement for Lat/Long (2)	SD	SD	SD	SD
Type of Monitoring Point (3)	W	W	W	W
Monitoring Point Function (4)	D	D	D	D
USGS Aquifer Code (5)	321 PBRGLS	321 PBRGLS	321 PBRGLS	321 PBRGC
MONITORING WELL INFORMATION				
Drilling Method (6)	AR	HD	AR	AR
Completion Date (mm/dd/yyyy)	10/24/1989	4/27/2012	5/25/205	5/24/2005
Total Depth (ft.)	209.13	342.94	289.5	231.77
Depth to Bottom of Casing (ft.)	169.63	322.94	269.5	211.77
Ground Surface Elevation	1055.74	1103.46	1102.48	1087.71
Measuring Point Elevation (7)	1057.31	1106.52	1104.58	1090.50
Method of Measuring Elevation (9)	SD	SD	SD	SD
Measuring Point Description (10)	TWC	TWC	TWC	TWC
Exposed Casing - above ground surface (ft.)	1.57	3.06	2.10	2.73
Well Casing Material (11)	PVC	PVC	PVC	PVC
Well Casing Diameter (in.)	4	2	2	2
Monitoring Point Number (1)	W-6U	W-7RD	W-9R2	W-10D
Depth to top of screened Interval (ft)	169.63	322.94	269.5	211.77
Depth to bottom of screened Interval (ft)	209.13	342.94	289.5	231.77
Screen Slot Size (in.)	0.020	0.10	0.010	0.010
Screen Material Type (11)	PVC	PVC	PVC	PVC
Packing Material Diameter (in.)	0.039	0.039	0.039	0.039
Packing Material Type (12)	CQ	CQ	CQ	CQ
Interval Grouted (Depth Range, ft.)	0-157.0		0-247	0-206
Grout Type (13)	CBM	CBM	CBM	CBM
Annular Thickness of Grout (in.)	2	2	2	2
Protective Casing Diameter (in.)	6	6	8	8
Protective Casing Material (11)	OT (Steel)	OT (Steel)	OT	OT

MONITORING WELL INFORMATION (Continued)				
Protective Casing Grout Type (13)	CBM	C	CBM	CBM
Concrete Collar Placed - 3 foot minimum diameter			2' by 2'	2' by 2'
Locking Cap (Y/N)	Y	Y	Y	Y
Sampling Device (14)	BLA	BAI	BAI	BLA
Dedicated Sampling Device (Y/N)	Y	Y	Y	Y
Sample Pump Capacity (gpm)	>1	N/A	N/A	>1
Sample Port Diameter (in.)	0.25	N/A	N/A	0.25
Dedicated Bailer (Y/N)	N	Y	Y	N
Use of Water Other Than Monitoring (15)	None	None	None	None
Type of Well Logs (16)	LI	LI	LI	LI
Type of Pump Used for Aquifer Testing (14)				
Pump Capacity for Aquifer Test (GPM)				
Depth to Aquifer Test Pump (ft.)				
GPM Pumped or Bailed for Test Intake (ft.)				
Static Water Level-Initial for Pump Test (7)				
Final Water Level for Pump Test (7)				
Monitoring Point Number (1)	W-6U	W-7RD	W-9R2	W-10R
Drawdown for Aquifer Test (ft.)				
Length of Aquifer Test (min.)				
Date of Aquifer Test (mm/dd/yyyy)				
Specific Capacity (gpm/ft)				
Transmissivity (gpd/ft)				
Storage Coefficient				
Hydraulic Conductivity (gpd/ft2)				
SPRING INFORMATION				
Monitoring Point Number (1)				
Discharge Point Elevation (7)				
Perennial (Y/N)				
Flow Rate (gpm)				
Method of Measurement (17)				
Date of Measurement (mm/dd/yyyy)				
Sampling Method (grab (G), composited (C)				

SECTION D. MONITORING POINT GEOGRAPHIC AND HYDROGEOLOGIC DESCRIPTORS

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Monitoring Point Number (1)	W-11R	W-13D	W-14R	MW-16U
Latitude	40° 08' 49.0"	40° 08' 40.53"	40° 08' 48.7"	40° 09' 22.0"
Longitude	79° 51' 02.7"	79° 51' 25.4"	79° 51' 03.1"	79° 51' 46.0"
Method of measurement for Lat/Long (2)	SD	SD	SD	SD
Type of Monitoring Point (3)	W	Well	W	Well
Monitoring Point Function (4)	D	D	D	D
USGS Aquifer Code (5)	321 PBRGLS	321 RDSNC	321 RDSNC	321 PBRGLS
MONITORING WELL INFORMATION				
Drilling Method (6)	AR	HSA	AR	AR
Completion Date (mm/dd/yyyy)	5/24/2005	12/08/1989	5/25/2005	4/19/1999
Total Depth (ft.)	298.99	40.36	132.94	160.0
Depth to Bottom of Casing (ft.)	278.99	30.36	113.04	90.0
Ground Surface Elevation	1087.71	937.65	1086.43	1020.89
Measuring Point Elevation (7)	1092.12	939.16	1088.49	1023.26
Method of Measuring Elevation (9)	SD	SD	SD	SD
Measuring Point Description (10)	TWC	TWC	TWC	TWC
Exposed Casing - above ground surface (ft.)	4.41	1.84	2.06	2.37
Well Casing Material (11)	PVC	PVC	PVC	PVC
Well Casing Diameter (in.)	2	4	2	4
Monitoring Point Number (1)	W-11R	W-13D	W-14R	MW-16U
Depth to top of screened Interval (ft)	278.99	30.36	113.04	140.0
Depth to bottom of screened Interval (ft)	298.99	40.36	132.94	160.0
Screen Slot Size (in.)	0.010	0.020	0.010	0.010
Screen Material Type (11)	PVC	PVC	PVC	PVC
Packing Material Diameter (in.)	0.039	0.039	0.039	0.02
Packing Material Type (12)	CQ	CQ	CQ	CQ
Interval Grouted (Depth Range, ft.)	0-260	0-22	0-104	0-134.0
Grout Type (13)	CBM	CBM	CBM	CBM
Annular Thickness of Grout (in.)	2	2	2	2
Protective Casing Diameter (in.)	8	6	8	8
Protective Casing Material (11)	PV	OT (Steel)	PV	OT (Steel)

MONITORING WELL INFORMATION (Continued)				
Protective Casing Grout Type (13)	CBM	C	CBM	C
Concrete Collar Placed - 3 foot minimum diameter	2' by 2'	Y	2' by 2'	Y
Locking Cap (Y/N)	Y	Y	Y	Y
Sampling Device (14)	BLA	BLA	BLA	N/A
Dedicated Sampling Device (Y/N)	Y	Y	Y	Y
Sample Pump Capacity (gpm)	>1	>1	>1	N/A
Sample Port Diameter (in.)	0.25	0.25	0.25	N/A
Dedicated Bailer (Y/N)	N	N	N	N
Use of Water Other Than Monitoring (15)	None	None	None	None
Type of Well Logs (16)	LI	LI	LI	LI
Type of Pump Used for Aquifer Testing (14)				
Pump Capacity for Aquifer Test (GPM)				
Depth to Aquifer Test Pump (ft.)				
GPM Pumped or Bailed for Test Intake (ft.)				
Static Water Level-Initial for Pump Test (7)				
Final Water Level for Pump Test (7)				
Monitoring Point Number (1)	MW-11R	W-13D	W-14R	MW-16U
Drawdown for Aquifer Test (ft.)				
Length of Aquifer Test (min.)				
Date of Aquifer Test (mm/dd/yyyy)				
Specific Capacity (gpm/ft)				
Transmissivity (gpd/ft)				
Storage Coefficient				
Hydraulic Conductivity (gpd/ft2)				
SPRING INFORMATION				
Monitoring Point Number (1)				
Discharge Point Elevation (7)				
Perennial (Y/N)				
Flow Rate (gpm)				
Method of Measurement (17)				
Date of Measurement (mm/dd/yyyy)				
Sampling Method (grab (G), composited (C)				

SECTION D. MONITORING POINT GEOGRAPHIC AND HYDROGEOLOGIC DESCRIPTORS (Continued)

Definitions and abbreviations/codes are listed below:

(1) Number all monitoring points consecutively and permanently. The number should be followed by a 'U' or 'D' to designate upgradient or downgradient.
(2) Surveyed by Datum (SD), USGS Quad Sheet (UQ).
(3) Well (W), Spring (S), Boring (B), Well/Boring (WB), Stream (ST).
(4) Detection (D), Assessment (A), Corrective Action (C).
(5) Give reference to Code Number.
(6) Air Rotary (AR), Mud Rotary (MD), Reverse Rotary (RR), Water Rotary (WR), Hollow Stem Continuous - flight auger (HS), Solid Stem Contiguous - flight auger (SS), Air Drill with Casing Hammer (AD), Other (OT).
(7) Ft/MSL.
(8) Unless otherwise indicated, the measuring point is assumed to be top of inner casing (well casing), ft/MSL.
(9) Surveyed by datum (SD), USGS Quad (UQ), Altimeter (AL), Surveyed by temporary location (ST), Other (OT).
(10) Top of protective casing (TPC), Top of well casing (TWC), Top of land surface (LS), Other (OT).
(11) PVC (PV), Teflon (TE), Stainless Steel (SS), Other (OT).
(12) Clean Quartz Sand (CQ), Silica (S), Glass Beads (GB), Fabric (F), Gravel (GR), Other (OT).
(13) Cement (C), Sodium Bentonite (SB), Cement & Bentonite Mixture (CBM), Calcium Bentonite (CB), Other (OT).
(14) Bladder Pump (BLA), Bailer (BAI), Submersible Pump (SUB), Centrifugal (CEN), Turbine (TUR), Other (OTH).
(15) Inspection (IN), Fire (F), Domestic (D), Sanitary Facilities (SF), Public Supply (PS), Oil and Gas (OG), Residential (R), Industrial (ID), Livestock/Agric. (LA), Irrigation (IR).
(16) Gamma (GA), Lithologic (LI), Drillers (DR), Electric (EL), Neutron (NE), Caliper (CA), Other (OT).
(17) Flowmeter (F), Stop Watch (SW)