MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land and Materials Administration
Solid Waste Program
1800 Washington Boulevard, Suite 605, Baltimore, Maryland 21230-1719

Larry Hogan
Governor

Ben Grumbles
Secretary

Groundwater Discharge Permit

No. 2021-GWD-2090

ISSUE DATE: Date ***EXPIRATION DATE:*** 5 year

Issued to: Waste Management of Maryland, Inc.

Authorizing: the discharge from the rubble cell floor at the closed Hunting Ridge Construction and Demolition Debris Landfill into underground waters of the State

Located at: 6801 East New Market-Ellwood Road, Hurlock in Dorchester County, Maryland

This permit is renewed pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and regulations promulgated thereunder, and is subject to the attached terms and conditions, and compliance with all applicable laws and regulations.

Edward M. Dexter, P. G., Administrator
Solid Waste Program

Kaley Laleker, Director
Land and Materials Administration

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GROUNDWATER DISCHARGE PERMIT
Permit No. 2021-GWD-2090
Issuance Date: Date
Expiration Date: 5 year

STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard
Baltimore, Maryland 21230-1719

This Groundwater Discharge Permit is renewed pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, by the Maryland Department of the Environment, Land and Materials Administration (MDE) to:

Waste Management of Maryland, Inc. (the "permittee")
10376 Bullock Drive
King George, Virginia 22485

to discharge from:

the rubble cell floor at the closed Hunting Ridge
Construction and Demolition Debris Landfill

located at:

6801 East New Market-Ellwood Road
Dorchester County, Maryland

via:

infiltration/percolation through the landfill
cell floor as identified and described herein;

into:

underground waters of the State in accordance with the
following special and general conditions and map made a part hereof.

This permit is subject to the terms and conditions specified in Parts I and II of this Permit as follows:

Part I: Special Conditions

Part II: General Conditions

PART I: <u>SPECIAL CONDITIONS:</u>

A. Groundwater Discharge Authorization:

1. The permittee is authorized to discharge wastewater (leachate) generated by rainwater percolating through the rubble landfill cell floor into the groundwater in accordance with Code of Maryland Regulations (COMAR), specifically 26.08.02.09C(1).

2. The characteristics or constituents of the groundwater in the aquifer or aquifers, which receive discharges from the rubble landfill cell floor shall not be caused to exceed primary or secondary drinking water standards outside the mixing zone or property boundary of the facility as provided in COMAR 26.04.01, "Quality of Drinking Water in Maryland", as a result of the discharge.

3. The permittee is prohibited from using the facility's stormwater management system for the collection, storage, or treatment of leachate generated by the landfill.

4. The permittee is prohibited from discharging any pollutants to waters of the State except under the following conditions:

    a. Landfill leachate to groundwater as expressly authorized by this permit;

    b. Stormwater runoff to surface water as authorized by a separate General Discharge Permit issued by the Department in accordance with Title 9, Subtitle 3 of the Environment Article and regulations promulgated thereunder; and

    c. Other pollutants to surface waters as authorized by separate State and federal discharge permits issued by the Department in accordance with Title 9, Subtitle 3 of the Environment Article and regulations promulgated thereunder.

B. Written Reports on Water Quality Analysis:

1. Within 90 days of the effective date of this permit, the permittee shall submit a hard copy and a searchable electronic/digital copy to the Department for review and approval a Groundwater and Surface Water Monitoring (G&SWM) Plan. The Plan shall be prepared in accordance with COMAR 26.04.07.08B(17), 26.04.07.09F and with the guidelines established by the Department.

2. a. The permittee shall submit to the Department an annual report on water quality containing summary and interpretative discussion of all analyses of the chemical quality of groundwater from all of the monitoring wells and all of the surface water monitoring points specified in the approved G&SWM Plan;

   b. The annual report on water quality shall be submitted to the Department within ninety days of the close of every first and third calendar quarters unless an alternative schedule is specified in the approved G&SWM Plan;

   c. Annual sampling of upgradient and downgradient wells shall occur during the period between January through March and semiannual sampling of downgradient wells shall occur during the period between July through September of each year unless an alternative schedule is approved by the Department;

   d. The permittee shall arrange for a qualified groundwater scientist to sample, or to oversee qualified environmental technicians who sample the wells at intervals specified in the approved G&SWM Plan or otherwise approved by the Department;

   e. The parameters to be measured and their Practical Quantitation Limits (PQL) are listed in Tables I and II of this permit. The Department may approve an alternative list of parameters or an alternative PQL for any parameter;

   f. The sampling, sample handling, analyses and reporting of analytical parameters shall be performed in accordance with the approved G&SWM Plan;

   g. A qualified independent laboratory certified for water quality analysis by the Department or which is otherwise acceptable to the Department shall perform the analyses;

h. A qualified groundwater scientist or professional shall evaluate the results and advise the permittee of any changes in water quality or any exceedances of the State and federal Maximum Contaminant Level (MCL), Action Level or other health standard;

i. A complete copy of the laboratory data, and the qualified groundwater scientist or professional's interpretive findings shall be included in each annual water quality report referenced in this permit;

j. If analytical results from samples collected from any sources associated with the landfill or surrounding properties exceed MCL, Action Level, or other health standard for the first time, the permittee must notify the Department within 24 hours of receipt of the analytical data detecting this occurrence. Thereafter, if there is any significant increases above the MCL, Action Level, or other health standard, the permittee must notify the Department within 24 hours of receipt of the analytical data detecting this occurrence;

k. Upon detection of the exceedance of an MCL, Action Level or other health standard for the first time, the monitoring point(s) in which the standard was exceeded must be immediately resampled to verify the initial detection. This resampling must occur as soon as possible, and no later than 30 days following receipt of the analytical data by the permittee or the qualified groundwater scientist or professional who is reviewing the analytical data which indicated the exceedance. If the permittee accepts the initial sampling result as a valid result, then the permittee can elect to not resample the monitoring point(s);

l. All "J" values must be reported. "J" values are analytical results that are below the PQL but can be estimated; and

m. All data for each well must be summarized and presented in time series format. The data for each well must be presented in a spreadsheet so that the water quality data for each parameter for each well can be observed simultaneously.

TABLE I
MONITORING PARAMETERS

VOLATILE ORGANIC COMPOUNDS	PQL (ppb)	VOLATILE ORGANIC COMPOUNDS	PQL (ppb)
Acetone	5.0	Cis-1,2-Dichloroethene	1.0
Acrylonitrile	5.0	Trans-1,2-Dichloroethene	1.0
Benzene	1.0	Methylene chloride	1.0
Bromochloromethane	1.0	1,2-Dichloropropane	1.0
Bromodichloromethane	1.0	Trans-1,3-Dichloropropene	1.0
Bromoform	1.0	Cis-1,3-Dichloropropene	1.0
Bromomethane	1.0	Ethylbenzene	1.0
2-Butanone	5.0	2-Hexanone	5.0
Carbon disulfide	1.0	Iodomethane	1.0
Carbon tetrachloride	1.0	4-Methyl-2-pentanone	5.0
Chlorobenzene	1.0	Methyl Tertiary Butyl Ether	2.0
Chloroethane	1.0	Styrene	1.0
Chloroform	1.0	1,1,1,2-Tetrachloroethane	1.0
Chloromethane	1.0	1,1,2,2-Tetrachloroethane	1.0
Dibromochloromethane	1.0	Tetrachloroethene	1.0
1,2-Dibromo-3-chloropropane	0.04	Toluene	1.0
1,2 – Dibromoethane (EDB)	0.04	1,1,1-Trichloroethane	1.0
Dibromomethane	1.0	1,1,2-Trichloroethane	1.0
1,2 – Dichlorobenzene	1.0	Trichloroethene	1.0
1,4 – Dichlorobenzene	1.0	Trichlorofluoromethane	1.0
Trans-1,4-dichloro-2-butene	5.0	1,2,3-Trichloropropane	1.0
1,1-Dichloroethane	1.0	Vinyl acetate	1.0
1,2-Dichloroethane	1.0	Vinyl chloride	1.0
1,1-Dichloroethene	1.0	Xylene	1.0

TABLE II
MONITORING PARAMETERS

ELEMENTS AND INDICATOR PARAMETERS	PQL (ppm)	ELEMENTS AND INDICATOR PARAMETERS	PQL (ppm)
Total Arsenic	0.0020	Total Sodium	0.2
Total Barium	0.0100	PH	0.1 (SU)
Total Cadmium	0.0040	Alkalinity	1
Total Chromium	0.0100	Hardness	0.5
Total Calcium	0.08	Chloride	0.39
Total Iron	0.005	Specific conductance	1
Total Lead	0.0020	Nitrate	0.06
Total Magnesium	0.004	Turbidity	0.11 (NTU)
Total Manganese	0.0100	Ammonia	1
Total Mercury	0.0002	Sulfate	0.38
Total Potassium	0.39	Total dissolved solids	10

3. The annual report on water quality must include a time series analysis of the data. The historical data from each well should be presented in a tabular form in each annual report. The discussion should emphasize historical trends in the data.

4. A copy of the most current topographic map of the landfill shall be included in each annual report on water quality and shall depict the location of all monitoring wells and piezometers.

5. A copy of a current groundwater contour map depicting the location of all monitoring wells from which groundwater data is collected shall be included in each annual report on water quality. Multiple aquifers shall be depicted on separate groundwater contour maps; and

6. The Department may specify an alternative sampling schedule upon a determination that an impact to the groundwater is or may be occurring, or for other good cause.

PART II: GENERAL CONDITIONS:

A. Monitoring and Reporting:

1. Representative Sample

Sample collection, measurements and other monitoring data gathered and reported in accordance with the approved G&SWM Plan or this permit shall be taken at such times as to be representative of the quantity and quality of the discharges during the specified monitoring periods.

2. Reporting of Monitoring Results

Monitoring results obtained pursuant to the requirements of this permit shall be submitted to the Department in accordance with the schedule specified in the approved G&SWM Plan or as otherwise required by the Department.

3. Sampling and Analysis Methods

The analytical and sampling methods used shall conform to procedures for the analysis of pollutants as identified in Title 40 CFR Part 136 - "Guidelines Establishing Test Procedures for the Analysis of Pollutants" unless otherwise specified in the approved G&SWM Plan or approved by the Department.

4. Data Recording Requirements

For each measurement of sample taken pursuant to this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling or measurement;
b. The person(s) who performed the sampling or measurement;
c. The dates and times the analyses were performed;
d. The person(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of all required analyses.

5. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the locations designated herein more frequently than specified by this permit, using approved analytical methods as specified in this permit, the results of such monitoring shall be reported to the Department.

6. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation, original recordings from continuous monitoring instrumentation, and inspection results shall be retained by the permittee for a minimum of five (5) years. The Department reserves the right to require an extension of this period in the event of litigation or for other legitimate reasons.

B. Management Requirements:

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant not specifically authorized by this permit shall constitute a violation of the terms and conditions of this permit. Anticipated facility expansions or modifications which will result in new, different, or an increased discharge of pollutants shall be reported by the permittee by submission of a new application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Department. Following such notice, this permit may be modified by the Department to specify and limit any pollutants not previously limited.

2. Noncompliance With Effluent Limitations

If for any reason the permittee does not comply or is unable to comply with any terms and conditions of this permit, the permittee shall notify the Department at (410) 537-3315 on the same day or on the next working day, following any noncompliance. Within five (5) working days after this notification, the permittee shall provide the Department with the following information in writing:

a. A description of the noncomplying discharge including its impact upon the receiving waters;

b. Cause of noncompliance;

c. Anticipated time the noncompliance is expected to continue or if such condition has been corrected;

d. Steps taken by the permittee to correct the noncompliance; and

e. A description of the accelerated or additional monitoring by the permittee to determine the nature and impact of the noncomplying discharge.

3. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any adverse impact to waters of the State or to human health resulting from noncompliance with any effluent limitation specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Removed Pollutant Substances

Unless previous written approval for disposal has been given by the Department, wastes such as solids, sludge, or other materials removed from or resulting from the treatment or control of waste waters or facility operations, shall be disposed of at a facility approved to accept such materials, and in a manner to prevent any removed substances or runoff from such substances from entering or from being placed in a location where they may enter the waters of the State.

5. Monitoring Equipment Maintenance

a. All ground and surface water monitoring systems shall be installed in accordance with the manufacturer's recommendations and plans and specifications approved by the Department. All ground and surface water monitoring systems shall remain operational and shall be maintained in accordance with the provisions of the approved plans and specifications.

b. Any incidence of damage to this facility's monitoring systems shall be reported to the Department at (410) 537-3315 within two hours of the incident, or within two hours of the discovery of the damage if the damage occurred outside of working hours. All repairs needed to correct the damage shall be completed as soon as practical or as specified by the Department.

6. Penalties for Tampering:

Section 9-343 of the Environment Article, Annotated Code of Maryland, provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by fines or by imprisonment, or by both.

C. Responsibilities:

1. Right of Entry

The permittee shall allow the Department's authorized representatives, at reasonable times and upon the presentation of credentials:

a. To enter this facility covered under this permit or where any records are required to be kept under the terms and conditions of this permit;

b. To have access to and copy any records required to be kept under the terms and conditions of this permit;

c. To inspect any equipment or process required in this permit;

d. To inspect any collection, treatment, pollution management, or discharge facilities required by this permit; and

e. To sample any waste, groundwater, surface water, soil or vegetation on the site; and

f. To obtain photographic documentation or evidence.

2. Availability of Reports

Except for data determined to be confidential under COMAR 26.08.04.01F, all submitted data shall be available for public inspection at the offices of the Department.

3. Duty to Provide Information

The permittee shall furnish to the Department within a reasonable time, any information that the Department may request, to determine whether cause exists for modifying, revoking, reissuing, or terminating this permit, or to determine compliance with this permit.

4. Water Construction and Obstruction

This permit does not authorize the construction or placing of physical structures, facilities, or debris, or the undertaking of related activities in any waters of the State.

5. Compliance with Water Pollution Abatement Statutes

The permittee shall comply at all times with the provisions of Title 4, Subtitle 4 and Title 9, Subtitle 3 of the Environment Article, Annotated Code of Maryland.

6. Reopener Clause for Permits

This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved if the effluent standard or limitation so issued or approved:

a. Contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or

b. Controls any pollutant not limited in this permit. The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the Act then applicable.

7. Toxic Pollutants

Notwithstanding General Condition C.6, if a Toxic Effluent Standard or Prohibition (including any schedule of compliance specified in such Toxic Effluent Standard or Prohibition) is established by the U.S. Environmental Protection Agency or pursuant to Section 9-314 of the Environment Article, Annotated Code of Maryland for a toxic pollutant which is present in the discharges authorized herein and such standard is more stringent than any limitation upon such pollutant in this permit, this permit shall be revoked and reissued or modified in accordance with the Toxic Effluent Standard or Prohibition and the permittee so notified. Any effluent standard established in this case for a pollutant which is injurious to human health is effective and enforceable by the time set forth in the promulgated standard, even absent permit modification.

8. Civil and Criminal Liability

Nothing in this permit shall be construed to neither preclude the institution of any legal action nor relieve the permittee from civil or criminal responsibilities and/or penalties for noncompliance with Title 9 of the Environment Article, Annotated Code of Maryland, or any federal, local, or other State laws or regulations.

9. Property Rights

The issuance of this permit does not intend to convey any property rights in either real or personal property, or any exclusive privilege or franchise,

nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, State, or local laws or regulations.

10. Action on Violations

The issue or reissue of this permit does not constitute a decision by the State not to proceed in administrative, civil, or criminal action for any violations of State law or regulations occurring before the issue or reissue of this permit, nor a waiver of the State's right to do so.

11. Penalties for Violations of Permit Conditions

Sections 9-342 and 9-343 of the Environment Article, Annotated Code of Maryland, provide that any person who violates a permit condition implementing Environment Article, Section 9-322 et seq. is subject to a civil penalty in an amount not to exceed $10,000 per day for such violation; an administrative penalty up to $1,000 for each day of violation not exceeding $50,000 total; or criminal fines of $25,000 or imprisonment not exceeding one year or both for a first offense, and a $50,000 fine or imprisonment not exceeding two years or both for subsequent offenses.

12. Permit Modification

A permit may be modified by the Department upon written request of the permittee and after notice and opportunity for a public hearing in accordance with and for the reasons set forth in COMAR 26.08.04.10 and Title 1, Subtitle 6 of the Environment Article of the Annotated Code of Maryland.

13. Permit Suspension or Revocation

a. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked and reissued in whole or in part during its term for causes including, but not limited to, the following:

i. Violation of any terms or conditions of this permit;

ii. Obtaining this permit by misrepresentation or failure to fully disclose all relevant facts;

iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or

iv. A determination that the permitted discharge poses a threat to human health, welfare or to the environment and can only be regulated to acceptable levels by permit modification or termination.

b. This permit may be suspended or revoked upon a final, unreviewable determination that the permittee lacks, or is in violation of, any federal, State or local approval necessary to conduct the activity authorized by this permit.

14. Severability

If any provision of this permit shall be held invalid for any reason, the remaining provisions shall remain in full force and effect, and such invalid provision shall be considered severed and deleted from this permit.

15. Signatory Requirements

All applications, request for alterations, renewal requests, or monitoring reports submitted to the Department shall be signed and verified in accordance with Section 1-201 of the Environment Article, Annotated Code of Maryland, by the permittee or authorized representative of this facility as being true.

16. Transfer of Ownership or Control of Facilities

This permit is not transferable to any person except after notice to the Department. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and may incorporate other requirements as may be necessary. The written notice to the Department shall include at least the following information:

a. The legal name, address and telephone number of the new owner or operator;

b. A statement, signed by the new owner or operator, indicating that the new owner or operator has read, understands and accepts the terms and conditions of the existing permit; and

c. The date that the new owner or operator took control or expects to take control of the facility. In the event that the new ownership or control is expected in the future, the current permittee and the anticipated new owner or operator both must sign the written notice to the Department.

17. Reapplication for a Permit

At least 180 days before the expiration date of this permit, unless permission for a later date has been granted by the Department, the permittee shall submit a new application for a permit or notify the Department of the intent to cease discharging by the expiration date. In the event that a timely and sufficient reapplication has been submitted and the Department is unable, through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit are automatically continued and remain fully effective and enforceable.

18. Permit Expiration

This permit and the authorization to discharge shall expire at midnight on the expiration date of this permit. In order to receive authorization to discharge after the expiration date, the permittee shall submit such information, forms, and fees as are required by the Department no later than 180 days prior to the expiration date.

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SOURCE:

AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, DATED MAY 2015.

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SCALE IN FEET

TITLE: **SITE LOCATION MAP**

LOCATION: **Hunting Ridge C&D Landfill**
Hurlock, Maryland

TETRA TECH

APPROVED	PR	FIGURE
DRAFTED	CP	1
PROJECT#	117-2402152	
DATE	1-8-16	