



## State of New Jersey

PHILIP D. MURPHY  
*Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SHAWN M. LATOURETTE  
*Commissioner*

SHEILA Y. OLIVER  
*Lt. Governor*

Mail Code 401-02B  
Division of Water Quality  
Bureau of Ground Water, Residuals, and Permit Administration  
P.O. Box 420 – 401 E State St  
Trenton, NJ 08625-0420  
Phone: (609) 984-4428  
[www.state.nj.us/dep/dwq/](http://www.state.nj.us/dep/dwq/)

August 23, 2023

Re: **FINAL NJPDES-DGW PERMIT**  
Ground Water Master General Permit Renewal  
Category: I1 – Stormwater Basins/SLF (GP)  
NJPDES Permit No. NJ0108308  
NJPDES Master General Permit Program Interest  
Trenton City, Mercer County

Dear Interested Party:

Enclosed is a **final** New Jersey Pollutant Discharge Elimination System (NJPDES) permit action identified above which has been issued in accordance with N.J.A.C. 7:14A. The permit authorizes stormwater basin discharges to ground water at operating sanitary landfills.

No written comments were received on the draft action during the comment period, and no provisions of the draft permit have been changed in the final permit. Therefore, the right by you, or any third party, to contest the permit conditions in an adjudicatory hearing is hereby waived pursuant to N.J.A.C. 7:14A-15.13.

Questions or comments regarding the final action should be addressed to Maame Konadu Wiafe of my staff at [MaameKonadu.Wiafe@dep.nj.gov](mailto:MaameKonadu.Wiafe@dep.nj.gov).

Sincerely,

Stephen Boyer, Section Chief  
Bureau of Ground Water, Residuals, and Permit Administration  
Division of Water Quality

Enclosures

cc: Michele Christopher, Chief, BGRPA

# Table of Contents

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New Jersey Department of Environmental Protection  
Division of Water Quality  
Bureau of Ground Water, Residuals, and Permit Administration  
401 East State Street, Trenton, NJ 08625

## FACT SHEET

This fact sheet sets forth the principal facts and the significant factual, legal, and policy considerations examined during preparation of the permit.

### **PERMIT ACTION: Ground Water Master General Permit Renewal**

#### **Category: I1 – Stormwater Basins/SLF (GP)**

#### **Name and Address of the Applicant:**

NJDEP Division of Water Quality  
401 E State St  
Trenton, NJ 08625

#### **Name and Address of the Facility/Site:**

NJPDES Master General Permit Program Interest  
401 E State St  
Trenton, NJ 08625

#### **Name and Classification of the Receiving Water:**

Ground Waters of the State  
Classes I, II & III

#### **Description of the Facility/Site:**

This general New Jersey Pollutant Discharge Elimination System-Discharge to Ground Water (NJPDES-DGW) permit (NJG0108308) is being renewed in accordance with the NJPDES Regulations, N.J.A.C. 7:14A-1*et seq.* The permit (Category I1) authorizes stormwater basin discharges to ground water at operating sanitary landfills. The permit is for site runoff into sedimentation basins, retention basins, detention basins, and surface impoundments (collectively referred to as basins). This runoff (rainwater) flows into basins without contacting landfill refuse.

Pursuant to the NJPDES Regulations, the New Jersey Department of Environmental Protection has determined that facilities with this category of discharge require the same effluent limitations and/or

operating conditions, require the same or similar monitoring, and are more appropriately controlled under a general permit than under individual permits. The general permit does not address and is not an approval of any past activity, which a landfill may have conducted, that has adversely affected or may affect ground waters of the State.

Table 1 lists the names of the eleven (11) permittees currently authorized under this general permit.

### **Location of the Facility:**

Statewide

### **Type and Quantity of the Wastes, Fluids, or Pollutants (as applicable):**

The permit (Category I1) applies only to discharges from stormwater basins at operating (accepting waste) sanitary landfills. The permit requires monitoring at basins to assure that stormwater discharges do not cause an adverse impact upon ground water quality. The permit addresses only stormwater discharges to ground water via basins at eligible operating sanitary landfills. The discharges associated with this permit shall not come into contact with solid waste. This general NJPDES-DGW permit does not supersede any existing permit the landfill currently possesses.

### **Description of Specific Conditions for the General Permit**

All applicants are required to comply with all other applicable federal, State, and local rules, regulations and ordinances. This may include, but is not limited to, such things as the Pineland Commission's development review approval and consistency with applicable Areawide Water Quality Management Plans. The issuance of this General NJPDES-DGW permit shall not be considered as a waiver of other requirements.

The purpose of the monitoring required in this permit is to determine that the facility has control over site conditions, which, if uncontrolled, could adversely impact the quality of runoff being collected in basins and on the ground water quality. The stormwater runoff will be analyzed for ammonia, pH, total dissolved solids, Kjeldahl Nitrogen, Lead, Mercury, Arsenic, and Oil & Grease. Such monitoring will indicate whether landfill leachate or site operations such as waste transport vehicle leachate are causing an impact upon the basin discharge at the site.

These parameters will be evaluated utilizing Shewhart-CUSUM control charts. The usage of these control charts is described in the "Guidance Document on the Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Interim Final Guidance" from the USEPA, April 1989. These control charts will provide a visual means by which trends or sudden increases in parameter concentrations can be identified quickly and effectively. Sudden increases in parameter concentrations would indicate that a contaminant source is causing an impact upon the quality of the basin discharge, and allows the permittee to identify the source and correct the situation before the discharge can contravene the Ground Water Quality Standards, N.J.A.C. 7:9C *et seq.*

Conditions and monitoring requirements in this permit are based on Federal and State Regulations, Best Available Technology and Best Professional Judgement, and have been established in a manner that will not cause a violation of N.J.A.C. 7:9C *et seq.*

**Name, Bureau, and Phone Number of Contact Person:**

Maame Konadu Wiafe, Environmental Services Trainee  
Bureau of Ground Water, Residuals, and Permit Administration – (609) 984-4428

**Permit Summary Table:**

The following items were used to formulate the basis of the permit:

1	N.J.S.A. 58:10A-1 <i>et seq.</i> , New Jersey Water Pollution Control Act.*
2	N.J.A.C. 7:14A-1 <i>et seq.</i> , New Jersey Pollutant Discharge Elimination System Regulations*
3	Ground Water Quality Standards (N.J.A.C. 7:9C)*

\*The document is part of the administrative record but is not physically included in the record.

The discharge described above is a regulated activity under the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 *et seq.*, and its implementing regulations, the New Jersey Pollutant Discharge Elimination System (NJPDES) N.J.A.C. 7:14A-1 *et seq.* The permit has been developed pursuant to these regulations and is based on the administrative record.

Table 1 - list of the 11 permittees currently authorized under this general permit

<b>NJPDES Permit Number</b>	<b>PI Number</b>	<b>Facility Name</b>	<b>County</b>	<b>Municipality</b>
NJG0128163	46089	ACUA HOWARD F HANEMAN ENVIRONMENTAL PARK	Atlantic	Egg Harbor Twp
NJG0130303	46157	BURLINGTON CNTY RESOURCE RECOVERY COMPLEX	Burlington	Mansfield Twp
NJG0128295	46768	PENNSAUKEN SANITARY LANDFILL	Camden	Pennsauken Twp
NJG0128155	46174	CMCMUA SECURE SANITARY LANDFILL	Cape May	Woodbine Boro
NJG0128104	46248	CUMBERLAND CNTY SOLID WASTE COMPLEX	Cumberland	Deerfield Twp
NJG0128180	46393	GLOUCESTER CNTY SOLID WASTE COMPLEX	Gloucester	Swedesboro Boro
NJG0128813	46628	MONMOUTH CNTY RECLAMATION CENTER	Monmouth	Tinton Falls Boro
NJG0128368	46724	OCEAN CNTY LANDFILL	Ocean	Manchester Twp
NJG0129585	46869	SALEM CNTY SOLID WASTE COMPLEX	Salem	Alloway Twp
NJG0128091	46966	SUSSEX CNTY MUA SOLID WASTE FACILITY	Sussex	Lafayette Twp
NJG0130621	46791	WARREN CNTY DIST LANDFILL	Warren	Oxford Twp



# NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

The New Jersey Department of Environmental Protection hereby grants you a NJPDES permit for the facility/activity named in this document. This permit is the regulatory mechanism used by the Department to help ensure your discharge will not harm the environment. By complying with the terms and conditions specified, you are assuming an important role in protecting New Jersey's valuable water resources. Your acceptance of this permit is an agreement to conform with all of its provisions when constructing, installing, modifying, or operating any facility for the collection, treatment, or discharge of pollutants to waters of the state. If you have any questions about this document, please feel free to contact the Department representative listed in the permit cover letter. Your cooperation in helping us protect and safeguard our state's environment is appreciated.

**Permit Number: NJ0108308**

**Program Interest Number: 50577**

**FINAL: Ground Water Master General Permit Renewal**

**Permittee:**

NJPDES Master General Permit  
Discharge Category II  
Division of Water Quality  
401-02B; P.O. Box 420  
401 East State Street  
Trenton, NJ 08625

**Co-Permittee:**

**Property Owner:**

NJPDES Master General Permit  
Discharge Category II  
Division of Water Quality  
401-02B; P.O. Box 420  
401 East State Street  
Trenton, NJ 08625

**Location Of Activity:**

NJPDES Master General Permit  
Discharge Category II  
Division of Water Quality  
401-02B; P.O. Box 420  
401 East State Street  
Trenton, NJ 08625

Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
I1 - Stormwater Basins/SLF (GP)	08/23/2023	09/01/2023	08/31/2028

By Authority of:  
Commissioner's Office

**DEP AUTHORIZATION**  
**Michele Christopher, Chief**  
**Bureau of Ground Water, Residuals, and Permit Administration**  
**Division of Water Quality**

(Terms, conditions and provisions attached hereto)

## PART I GENERAL REQUIREMENTS: NJPDES

### A. General Requirements of all NJPDES Permits

#### 1. Requirements Incorporated by Reference

- a. The permittee shall comply with all conditions set forth in this permit and with all the applicable requirements incorporated into this permit by reference. The permittee is required to comply with the regulations, including those cited in paragraphs b. through e. following, which are in effect as of the effective date of the final permit.
- b. General Conditions
  - Penalties for Violations N.J.A.C. 7:14-8.1 et seq.
  - Incorporation by Reference N.J.A.C. 7:14A-2.3
  - Toxic Pollutants N.J.A.C. 7:14A-6.2(a)4i
  - Duty to Comply N.J.A.C. 7:14A-6.2(a)1 & 4
  - Duty to Mitigate N.J.A.C. 7:14A-6.2(a)5 & 11
  - Inspection and Entry N.J.A.C. 7:14A-2.11(e)
  - Enforcement Action N.J.A.C. 7:14A-2.9
  - Duty to Reapply N.J.A.C. 7:14A-4.2(e)3
  - Signatory Requirements for Applications and Reports N.J.A.C. 7:14A-4.9
  - Effect of Permit/Other Laws N.J.A.C. 7:14A-6.2(a)6 & 7 & 2.9(c)
  - Severability N.J.A.C. 7:14A-2.2
  - Administrative Continuation of Permits N.J.A.C. 7:14A-2.8
  - Permit Actions N.J.A.C. 7:14A-2.7(c)
  - Reopener Clause N.J.A.C. 7:14A-6.2(a)10
  - Permit Duration and Renewal N.J.A.C. 7:14A-2.7(a) & (b)
  - Consolidation of Permit Process N.J.A.C. 7:14A-15.5
  - Confidentiality N.J.A.C. 7:14A-18.2 & 2.11(g)
  - Fee Schedule N.J.A.C. 7:14A-3.1
  - Treatment Works Approval N.J.A.C. 7:14A-22 & 23
- c. Operation And Maintenance
  - Need to Halt or Reduce not a Defense N.J.A.C. 7:14A-2.9(b)
  - Proper Operation and Maintenance N.J.A.C. 7:14A-6.12
- d. Monitoring And Records
  - Monitoring N.J.A.C. 7:14A-6.5
  - Recordkeeping N.J.A.C. 7:14A-6.6
  - Signatory Requirements for Monitoring Reports N.J.A.C. 7:14A-6.9
- e. Reporting Requirements
  - Planned Changes N.J.A.C. 7:14A-6.7
  - Reporting of Monitoring Results N.J.A.C. 7:14A-6.8
  - Noncompliance Reporting
    - Hotline/Two Hour & Twenty-four Hour Reporting N.J.A.C. 7:14A-6.10 & 6.8(h)
    - Written Reporting N.J.A.C. 7:14A-6.10(e) & (f) & 6.8(h)
  - Duty to Provide Information N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1
  - Schedules of Compliance N.J.A.C. 7:14A-6.4
  - Transfer N.J.A.C. 7:14A-6.2(a)8 & 16.2



## PART II

# GENERAL REQUIREMENTS: DISCHARGE CATEGORIES

### A. Additional Requirements Incorporated By Reference

#### 1. Additional Requirements Incorporated By Reference

- a. For new construction, expansion or major repairs of regulated discharge units subject to N.J.A.C. 7:14A-22 and 23, the permittee may be required to obtain a Treatment Works Approval. For new construction, the permittee shall obtain the necessary Treatment Works Approval(s) to design, construct and operate a discharge unit capable of meeting any limits set forth in this permit.
- b. The operation of the permittee's treatment works shall be under the supervision of a licensed operator who meets the NJDEP's requirements for the appropriate classification as contained in N.J.A.C. 7:10-13.1.

### B. General Conditions

#### 1. Scope

- a. The issuance of this permit shall not be considered as a waiver of any applicable federal, state, and local rules, regulations and ordinances.

#### 2. Permit Renewal Requirement

- a. Permit conditions remain in effect and enforceable until and unless the permit is modified, renewed or revoked by the Department.
- b. Authorization under this permit will be automatically renewed when this permit is reissued as provided by N.J.A.C. 7:14A-6.13(d)9 so long as the discharge authorized under this permit continues to be eligible. The Department shall issue a notice of renewed authorization to the facility.
- c. If the facility is aware of any information in the most recently submitted RFA that is no longer true, accurate, and/or complete, the facility shall provide the correct information to the Department within ninety (90) days of the effective renewal authorization notice.

#### 3. Notification of Non-Compliance

- a. The permittee shall notify the Department of all non-compliance when required in accordance with N.J.A.C. 7:14A-6.10 by contacting the DEP HOTLINE at 1-877-WARNDEP (1-877-927-6337).
- b. The permittee shall submit a written report as required by N.J.A.C. 7:14A-6.10 within five days.

#### 4. Notification of Changes

- a. The permittee shall give written notification to the Department of any planned physical or operational alterations or additions to the permitted facility when the alteration is expected to result in a significant change in the permittee's discharge and/or residuals use or disposal practices including the cessation of discharge in accordance with N.J.A.C. 7:14A-6.7.
- b. Prior to any change in ownership, the current permittee shall comply with the requirements of N.J.A.C. 7:14A-16.2, pertaining to the notification of change in ownership.

## **5. Access to Information**

- a. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to enter upon a person's premises, for purposes of inspection, and to access / copy any records that must be kept under the conditions of this permit.

## **6. Operation Requirements**

- a. The permittee shall notify the applicable Bureau of Water Compliance and Enforcement office and the Permit Administration Section, prior to initiating discharges from newly constructed discharge facilities.

## **7. Contingency Requirements**

- a. When a regulated unit causes contravention of the Ground Water Quality Standards of N.J.A.C. 7:9C, corrective measures shall be implemented to address the problem. Such measures may include more extensive monitoring of the soil and ground water, remediation of the release, or an upgrade or closure of the existing system.
- b. When any regulated unit must be removed from service for reasons other than routine maintenance and/or scheduled rotation; or creates an unpermitted discharge; or fails hydraulically, the permittee shall:
  - i. Immediately cease any unpermitted discharge and implement the appropriate section of the facility's O & M Manual.
  - ii. Immediately contact the Department's Emergency Hotline at 1-877-927-6337 and contact the appropriate regional Bureau of Water Compliance and Enforcement. For details on reporting time frames please refer to N.J.A.C. 7:14A-6.2 and 6.10.
  - iii. Notify the Bureau of Environmental, Engineering and Permitting to determine if a Treatment Works Approval is required prior to repairing the failing regulated unit.
  - iv. If a new or altered regulated unit is to be constructed, the permittee must first obtain approval through modification of a GWPP or by applying for a NJPDES Permit modification, demonstrate that the alteration or new system shall reasonably improve the existing situation and obtain a letter approving the technical information before applying for a Treatment Works Approval. The NJPDES permit may be modified at a later date to reflect the change in the disposal systems if the improvement significantly changes the conditions of the permit.
  - v. For units which rely on infiltration where the probable cause of hydraulic failure is unintentional overloading of the disposal area due to unequal distribution of the discharge or heavy rain, snow melt, etc., the permittee shall continue to implement the measures outlined in the facility's O & M Manual until the failing disposal area drains and returns to operational status. If the failing disposal area is determined to be under-sized for the given flow or physically clogged, Department approved measures must be taken to rectify the situation

## **8. Requirements for General Permits**

- a. A Request for Authorization (RFA) under this general permit shall include the following:  
NJPDES-1 form, a statement identifying which months the permittee intends to sample; a diagram illustrating the location of each basin, the areas of contribution to each basin, hydraulic connections between the basins, if applicable, and the proposed sampling locations chosen in accordance with the guidelines established in this permit.
- b. The RFA shall include a certification that arrangements have been made for a Public Notice stating that the applicant is requesting authorization under this general permit.
  - i. The Public Notice shall be placed in a daily or weekly newspaper with a circulation within the area that may be affected by the facility.
  - ii. The Public Notice shall incorporate the language outlined in the certification form included in the RFA package.
- c. Authorizations under this permit shall become effective upon notification from the Department, as allowed pursuant to N.J.A.C. 7:14A-6.13(d)5.iii. Authorization under this permit will be issued after the Department approved the proposed basin sampling locations and sampling months.
- d. For all facilities authorized under this general permit, the permit expiration date is the same as the general permit's expiration date. The effective date on each facility's permit page is the date the authorization was individually issued to that facility.
- e. Facilities with existing individual NJPDES-DGW permits who qualify for this general permit and wish to be authorized under it, will have the basin category and associated basin requirements in their individual permit terminated only after a valid authorization under this general permit is issued.

PART III

LIMITS AND MONITORING REQUIREMENTS

MONITORED LOCATION:  
I101 Stormwater Basin/LF

ROCK FORMATION:

DISCHARGE CATEGORY(IES):  
I1 - Stormwater Basins/SLF (GP)

Location Description

Basin monitoring point

GW Discharge WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 1: GW Discharge WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final                      PHASE Start Date: 09/01/2023                      PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
pH	Effluent Gross Value	REPORT	SU	Grab	January thru December
Oil and Grease	Effluent Gross Value	REPORT	MG/L	Grab	January thru December
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	REPORT	MG/L	Grab	January thru December
Nitrogen, Kjeldahl Total (as N)	Effluent Gross Value	REPORT	MG/L	Grab	January thru December
Solids, Total Dissolved (TDS)	Effluent Gross Value	REPORT	MG/L	Grab	January thru December
Arsenic, Total (as As)	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Lead, Total (as Pb)	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Mercury, Total (as Hg)	Effluent Gross Value	REPORT	UG/L	Grab	January thru December

## PART IV

### SPECIFIC REQUIREMENTS: NARRATIVE

#### Notes and Definitions

##### A. Footnotes

###### 1. Conditions Associated with Discharge Monitoring

- a. All completed Monitoring Report Forms (MRF) shall be submitted via NJDEP's Electronic MRF Submissions Service. Information regarding registration for NJDEP's Electronic MRF Submissions Service can be found at <https://www.state.nj.us/dep/dwq/mrf.htm>.
- b. After the first year of sampling, the permittee may propose another analytical method for Departmental approval. Such a proposal shall be accompanied by a statement explaining how the method adequately monitors all the compounds of concern.
- c. The Department reserves the right to direct the permittee to use other analytical methods by giving the permittee 30 days written notice to do so.
- d. The parameter pH is to be field determined.
- e. All biological and chemical parameters shall be analyzed by a New Jersey Certified Laboratory.
- f. Analysis for Oil and Grease shall be performed by 40 CFR USEPA Part 136 Method 1664A or another method approved by the Department and reported in ppm.
- g. Metals shall be analyzed by EPA methods capable of achieving the practical quantitation level listed in N.J.A.C. 7:9C, the Ground Water Quality Standards.

##### B. Definitions

###### 1. Conditions Associated with Discharge Monitoring

- a. "Grab" means an individual sample collected over a period not exceeding 15 minutes.
- b. "Semi-annual" means monitoring conducted at a minimum frequency of once every six calendar months.

## Stormwater Basins/SLF (GP)

### A. Monitoring and Data Analysis Requirements

#### 1. Conditions Associated with Discharge Monitoring, Table III-A-1

- a. The permittee shall collect and analyze samples at the discharge monitoring point in accordance with this permit.
- b. All biological and chemical parameters are to be analyzed by a New Jersey Certified Laboratory.
- c. Parameters with a "Report" limit do not have limits established by this permit, although the permittee is required to analyze the wastewater for the parameter and report its value. Failure to sample and report the value is a permit violation which is subject to penalties.
- d. TABLE III-A-1 lists the parameters to be monitored, sampling frequency, sample type, and the reporting frequency. All sampling shall be performed according to the procedures specified in the Department's Field Sampling Procedures Manual.
- e. If at any time during a discharge sampling period, the permittee believes an unrepresentative analytical discharge result was obtained, the permittee may take further samples and analyze more discharge samples than required.

#### 2. Discharge Monitoring Point Selection Requirements

- a. The Permittee shall maintain Department approved sampling locations in accordance with this general permit.
- b. DGW monitoring samples shall be collected from each basin at a point which is representative of average water quality unless the basin has a permitted surface water outfall. If the basin has a surface water outfall, DGW basin monitoring samples shall be taken in the basin near the surface water sampling point. DGW basin monitoring samples shall not be taken from an alternate location until the Department is notified in writing.
- c. Only one sampling point is necessary for a series of hydraulically connected basins as long as the basins, which are not being sampled, do not receive runoff from anywhere except the previous basin. This sampling point will be located downgradient of all influent points and as close to the landfill waste area as possible.
- d. If, during a sampling event, there is an active discharge to surface water, then the sample taken to fulfill the surface water sampling requirement shall fulfill the DGW sampling requirement. The sample shall be analyzed for all parameters in both the surface water monitoring table in the DSW permit and the DGW monitoring Table III-A-1 in this permit. If there are duplications in the tables, only one analysis for the duplicate parameters need be done, but the results must be reported separately for the DSW and DGW permits.
- e. If, during a sampling event, there is no active discharge to surface water, then the DGW sampling requirement shall be fulfilled by collecting a sample directly from the basin. The sample shall be analyzed for the parameters listed in Table III-A-1 of this permit. The permittee shall report DGW results on Waste Characterization Reports (WCRs). NJPDES-DSW permits may require different reporting forms.

## Stormwater Basins/SLF (GP)

- f. If there is no flow into the basins during a sampling month and a sample cannot be obtained from the basin, the permittee shall attempt to collect a sample for two subsequent consecutive months. If a basin sample is unobtainable after these two attempts, the permittee shall notify the Department, in writing, that no flow was discharged to the basin during that time. Submit the WCR forms and note that there was no discharge on the transmittal sheet. If there is also a discharge to surface water permit for the facility, refer to that document for requirements for the surface water discharge.
- g. Basins in which water infiltrates too quickly to allow an adequate sample to be collected must be equipped with a collection device or reservoir. Any design that allows an adequate sample to be collected is sufficient but should be small enough to allow the total replacement of any standing water when a discharge to the basin occurs. An adequate sample is twice the volume necessary to perform the required parameter analyses.

### 3. Statistical Analysis Requirements

- a. The permittee shall perform semi-annual statistical analyses for all constituents, except pH, listed in TABLE III-A-1, at each sampling location for the duration of the permit. Two simple methods of analyzing the data shall be used: time series graphs and Shewhart-CUSUM control charts. Each of these methods is a concentration vs. time graphical technique that allows one to easily notice if data is above or below a threshold line. Data results plotting below the thresholds are "in control" while those above represent anomalous results, which will need to be addressed. If 50% or more of the analyses show a specific parameter is non-detectable (ND) only a time series graph is required.
- b. TIME SERIES GRAPHS
  - i. Time series graphs are to be constructed by plotting the concentration of a given constituent on the y-axis, and the time (date) the sample was collected, on the x-axis. A separate graph should be constructed for each constituent. A line shall be drawn across the graph that represents the respective GWQS threshold for each constituent. This line provides an easy visual reference as to whether the data is above or below the GWQS. For any data plotting above the GWQS for Arsenic, Lead or Mercury, the permittee must provide written notice to the BGRPA with possible reasons for the excursion. The notification shall be to the following address: Chief, Bureau of Ground Water, Residuals, and Permit Administration, Division of Water Quality, P.O. Box 420, Trenton, NJ 08625, [dwq\\_groundwater@dep.nj.gov](mailto:dwq_groundwater@dep.nj.gov).
  - ii. Time series graphs are continuously growing as more data points are added. At some point, however, old data may not fit easily on the graph and may be removed as needed. In general, as much historical data as possible should be shown on each graph and, at a minimum, the 10 most recent sampling periods should be shown (i.e., data from the last 5 years, assuming semi-annual sampling.)
  - iii. Graphs should be prepared on 8.5 x 11 inch paper. No more than 4 graphs should appear on any one page.
- c. SHEWHART-CUSUM CHARTS

- i. Shewhart-CUSUM charts shall be constructed following the "Guidance Document on the Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities" Section 7 "Control Charts for Intra-Well Comparisons" (herein referred to as Section 7). This document may be obtained from the BGRPA. Charts shall be constructed for all constituents, except pH, listed in TABLE III-A-1 at each sampling location for the duration of the permit. At the permittee's request, the Department can provide a spreadsheet template that will easily perform the calculation and graph the results. NOTE: Where methodology in this section diverges from methodology in Section 7, please follow the permit.
  - ii. Be advised Shewhart-CUSUM control charts can only be constructed with normal data, therefore the permittee shall determine whether or not the data represents a "normal" Gaussian distribution, making any necessary adjustments. Tests of normality or methods of adjusting for normality can be found in Section 7.
  - iii. A minimum of eight independent samples is needed to construct the Shewhart-CUSUM control charts. These data establish a mean from which subsequent data are compared.
  - iv. When historical data exists for a constituent, the control charts will be constructed using all the data from the five years prior to the effective date on the individual facility's permit authorization page. When five years of historical data does not exist for a constituent, the facility shall collect samples eight times throughout the first year to yield adequate data to establish a Shewhart CUSUM control chart after the first year. If there is not enough water flow to collect eight independent samples during the first year, a notification must be submitted to the Bureau of Ground Water, Residuals and Permit Administration before the end of the first year.
  - v. Once the data have been checked and adjusted as appropriate, Shewhart-CUSUM control charts shall be constructed following the procedure outlined in Section 7. In the case where a transformation of the data was needed to provide a normal distribution, the control charts will still be constructed as above with a notation indicating the non-normal distribution characteristics of the data. Section 7 also provides guidance on how to update the chart.
- d. Once the control charts are established, data from each subsequent sampling event will be plotted on the charts to determine if the new data is consistent with past data. When a data point lies outside the thresholds established in the control chart, the permittee must notify the Chief, Bureau of Ground Water, Residuals and Permit Administration, in writing by certified mail, within thirty (30) days of receiving the analytical results.
- i. This notification shall include all occurrences at the facility that may have impacted water quality in the basins and any measures that may have been implemented to correct the situation.
  - ii. For each constituent, if the data exceed the guidelines established in the control charts for 2 consecutive sampling periods, the permittee shall conduct a site evaluation to consider what may be the cause of the change in runoff quality and submit a report within 60 days of this notification. This site evaluation and report shall identify the possible causes of the change in runoff quality, what actions are proposed to remedy the situation, and an implementation schedule. If the data continue to exceed the guidelines of the control charts for two consecutive sampling periods after corrective measures have been implemented, the permittee shall continue to re-evaluate the site and follow the procedures outlined above.



- iii. If the permittee does not re-evaluate the cause of the change in runoff quality or if none of the corrective measures are effective in eliminating the source of contaminants in the basin discharge, the Department may require the permittee to obtain an individual permit. This permit could include limits on the basin discharge or a more extensive ground water quality monitoring program including monitoring wells, to determine that the GWQS, N.J.A.C. 7:9C, have not been contravened.

#### **4. REPORTING REQUIREMENTS**

- a. The permittee shall report the results of analyses in accordance with this permit.
- b. The permittee shall submit analytical data on WCR forms. Failure to submit data to the Department on WCRs is a violation of the permit requirements and may place the permittee subject to civil and administrative penalties pursuant to N.J.S.A. 58:10A-10 et seq.
- c. If the permittee collects more discharge samples than is required by this permit, the results of all analyses shall be included in the semi-annual monitoring report and submitted to the Bureau of Ground Water, Residuals and Permit Administration. The permittee must document and submit to the Department in writing the reason for the additional samples. WCRs should contain only one value for each parameter.
- d. The frequency of reporting to the Department of the records kept under Part III shall be as specifically stated therein.
- e. All completed Monitoring Report Forms (MRF) shall be submitted via NJDEP's Electronic MRF Submissions Service. Information regarding registration for NJDEP's Electronic MRF Submissions Service can be found at <https://www.state.nj.us/dep/dwq/mrf.htm>.
- f. The required control charts shall be submitted to the Bureau of Ground Water, Residuals and Permit Administration at the same time the WCRs are submitted to the Permit Administration Section.

### **C. Submittals**

#### **1. Operations & Maintenance Manual**

- a. For new permittees, submit an Operation and Maintenance (O&M) manual within ninety (90) days of the effective date of the permit authorization.
- b. For existing permittees, the O&M manual shall be updated and maintained. Submit the updated O&M Manual within sixty (60) days of the facility operation changes.
- c. If the items required in the O&M Manual are addressed in another document which has been approved by the Department, the permittee may submit a letter to the Bureau of Ground Water, Residuals and Permit Administration referencing the specific document that contains the information.
- d. The permittee must educate all appropriate personnel and licensed operators (as applicable) about the contents and procedures of the O&M Manual to insure proper implementation.
- e. The most recent version of the O&M Manual, as well as all records of maintenance and inspections, must be kept on-site at all times and must be available for inspection upon request by the Department.
- f. The O&M Manual shall include, at a minimum, the following provisions, as applicable:

- i. A list of all pollutants generated and discharged to units regulated by this permit;
  - ii. A schedule of maintenance and inspections of the processes including the pollutant generation, conveyance and discharge units;
  - iii. A schedule of the required inspections for all monitoring devices;
  - iv. Requirements established by this permit for unit-specific maintenance and inspection;
  - v. An assessment of emergency situations which can affect the discharge activities. The permittee shall perform a vulnerability analysis of the entire pollutant generating, conveyance, and discharge system(s). Emergency procedures in the manual shall not create an unpermitted discharge or contravene any regulations. If the discharge flows to the regulated units without the aid of pumps, the emergency plan only needs to address equipment and emergency procedures.
  - vi. Procedures for correcting emergency situations and for notifying appropriate regulatory agencies;
  - vii. The location of any on-site temporary or permanent pollutant storage areas. All pollutant storage areas must be properly constructed and/or maintained in conformance with all applicable State and Federal rules;
  - viii. Provisions for utilizing previously approved and constructed diversion mechanisms until the regulated unit can be returned to operational status, if applicable. Provisions shall include the ability to monitor for permit compliance.
  - ix. Procedures shall address the ability of a Department approved reserve discharge unit(s) to accept and treat (if applicable) the given volume of pollutants, and the ability to monitor for permit compliance.
- g. After any emergency situation has been corrected, the permittee shall review the emergency procedures in place and, if necessary, revise the O&M Manual.
- h. The permittee shall notify the appropriate Bureau of Water Compliance and Enforcement office, in writing, no less than 180 days prior to the expected closure of the regulated unit, requesting current closure requirements. Upon receipt of these requirements, the permittee shall submit a proposed closure plan to the permit-issuing bureau for review and approval.

Bureau of Water Compliance & Enforcement-Northern (Jurisdiction: Counties of Bergen, Essex, Hudson, Hunterdon, Morris, Passaic, Somerset, Sussex, Union and Warren)  
7 Ridgedale Avenue  
Cedar Knolls, NJ 07927  
973-656-4099

Bureau of Water Compliance & Enforcement-Southern (Jurisdiction: Counties of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Middlesex, Monmouth, Ocean and Salem)  
2 Riverside Drive  
Suite 201  
Camden, NJ 08103  
856-614-3655.

## 2. Plot Plan

- a. The plot plan shall be updated and maintained. Submit a plot plan within 60 calendar days after a change in site conditions to the Bureau of Ground Water, Residuals, and Permit Administration. The plot plan shall include:
  - i. Legal site boundaries surveyed by a licensed New Jersey land surveyor within the last twelve (12) months. A survey of the property which is older than one year may be submitted to fulfill this requirement if the survey is signed and sealed by a licensed surveyor certifying that the survey is an accurate representation of current site conditions.
  - ii. The location of all regulated units. Each unit regulated by this permit shall be identified as Unit #1, Unit #2, etc. All pertinent information about the regulated unit shall be included with the plot plan. Information shall include basin lining, exact location and designation of discharge monitoring points, and, if applicable, a description of the sampling device and locations of surface water outfalls.
  - iii. The location of all existing and proposed ground water monitoring wells, piezometers and water supply wells, if applicable. Include a table with the plan which lists, a) the latitude and longitude of each well to the nearest one-tenth of a second; b) the vertical elevation of each well to the nearest one-hundredth (1/100) foot at top of casing, based on the most current New Jersey Control Survey datum; c) ground surface elevation to the nearest 1/100 foot; d) the Well Permit Number issued by the Bureau of Water Allocation; e) the monitoring well number as identified in the permit; f) the total depth of the well to the nearest 1/100 foot; g) the depth to the top of screen or top of open hole (i.e., bottom of casing) to the nearest 1/100 foot; i) the diameter of the well in inches; and j) the depth to static water table from the top of casing to the nearest 1/100 foot at the time of installation.
- b. The above referenced materials shall be submitted to the following address:  
NJDEP  
Mail Code 401-02B  
Division of Water Quality  
Bureau of Ground Water, Residuals, and Permit Administration  
P.O. Box 420  
Trenton, New Jersey 08625  
dwq\_groundwater@dep.nj.gov.

## **D. Conditions Relating to Ground Water Discharge Units**

### **1. General Provisions**

- a. Failure to operate and maintain treatment works which are used to achieve compliance with the terms and conditions of the permit as specified in the O&M Manual is a violation of this permit.
- b. The permittee shall notify the Department in writing whenever there is a change in operation which could potentially effect the characteristics of a regulated discharge.

### **2. Requirements for Basin Systems**

- a. For the purpose of this permit, "basin" is a collective term used to describe a variety of regulated units at NJPDES-DGW permitted facilities. Examples of these basins are infiltration/percolation lagoons or surface impoundments which may be referenced by the permittee as retention, settling, storage or detention ponds, basins, lagoons, lined or unlined basins. The common feature of these basins is that they are topographic depressions or bermed areas designed to hold or treat pollutants.

- b. Unauthorized discharges from basins are prohibited.
- c. The following items should be addressed in the facility's O&M Manual.
  - i. A schedule of physical inspections of all visible portions and areas surrounding the basin unit(s) on a weekly basis, or alternate schedule if site conditions and other regulatory programs warrant it, and after storms to:
    - Ensure that the liner material and berms have remained structurally sound;
    - Detect evidence of any deterioration, breakout, malfunctions or improper operation of the over-topping control system;
    - Detect sudden drops in the level of the basin contents not associated with normal operation of the regulated unit;
    - Detect erosion or other signs of deterioration in berms or other containment devices;
    - Comply with their Emergency Plan, when malfunctions or failures are observed; and,
    - Detect the presence of liquids in the leak detection system, if employed.
  - ii. A protective cover shall be maintained on earthen dikes to prevent erosion and to maintain integrity. However, dikes shall be free of vegetation with invasive root systems that could displace the earthen materials upon which the structural integrity of the dike is dependent.
  - iii. A course of action shall be outlined for procedures to be implemented in the event the basin must be removed from service for an extended period of time for reasons other than routine maintenance and/or scheduled rotation of permitted discharge areas. This course of action must address handling of the discharge. Handling can include diversion of the discharge to a previously approved reserved disposal area.
- d. No basin that was removed from service due to structural collapse or overtopping may be restored to service unless that portion of the basin which failed has been repaired.
  - i. If the basin was removed from service due to actual or imminent bank or side wall failure, the structural integrity shall be certified by the signature and seal of a New Jersey licensed Professional Engineer prior to the redirection of flow to the basin. Said certification shall be received by the Department prior to the resumption of discharge to the basin.
  - ii. If, in the judgement of the Department, the original basin system or portions thereof were insufficient or inadequate, the permittee shall propose a new upgraded system. The permittee shall inquire of the Bureau of Environmental, Engineering, and Permitting about the necessity of obtaining a Treatment Works Approval. If a TWA is required, the new basin system will be installed upon issuance of a TWA. A new site plan shall be submitted to the Bureau of Ground Water, Residuals, and Permit Administration along with any necessary revisions to the approved Maintenance, Inspection, and Emergency Operations Manual.
  - iii. If a basin was inactive for more than six months, the permittee shall obtain a certification from a New Jersey licensed Professional Engineer that it is structurally sound. The certification shall be signed and sealed by the New Jersey licensed Professional Engineer and shall establish that the banks, dikes, and foundation of the basin will withstand the physical and chemical stresses of resumed operation. If the basin is lined, the certification shall also state that the lined basin will not discharge to ground water.
- e. A basin shall not be returned to operation unless all necessary repairs and inspections have been completed. The Department reserves the right to inspect the basin when repairs are made.

### 3. Requirements for Infiltration-Percolation Lagoons

- a. In order to maintain the infiltrative capacity of a lagoon, infiltrative surfaces shall be scarified periodically, by removing accumulated organic material, and/or disking or harrowing the surface soil layer. A schedule for scarification shall be incorporated into the O&M Manual.
- i. Lagoons can be recontoured to provide minor (less than 10%) additional storage capacity, correct minor side wall and berm defects, alter side wall slope or similar changes or corrections after notifying the permit issuing bureau in writing of the proposed changes. Notification shall include the submittal of plans for the proposed change and an estimated time for completion.

#### **4. Requirements for Surface Impoundments**

- a. The following items shall be addressed in the facility's O&M Manual.
  - i. The liner shall be maintained at its design permeability. The integrity of all surface impoundments must be periodically evaluated, upon written direction from the Department. Additionally, the Department may, at any time, require the certification of structural integrity based on visual observations made during facility Compliance Evaluation Inspections or other Department site visits.
  - ii. Repaired or replaced liners must be tested for integrity prior to resuming discharge.
  - iii. A protective cover shall be maintained on earthen dikes to prevent erosion and to maintain structural integrity.
- b. In regulated units with double liners, the permittee shall collect and remove pumpable liquids in the sumps of the leachate collection system to minimize the head on the bottom liner.

NJPDES MASTER GENERAL PERMIT PROGRAM INTEREST, Trenton

Permit No.NJ0108308  
DGW230001 Ground Water Master General Permit Renewal