



State of New Jersey

PHIL MURPHY
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
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Bureau of Surface Water & Pretreatment Permitting
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SHAWN M LATOURETTE
Commissioner

SHEILA OLIVER
Lt. Governor

Email Only
July 7, 2021

Brian Valentino, CEO
Western Monmouth Utilities Authority
103 Pension Rd
Manalapan Twp, NJ 07726

Re: Final Surface Water Renewal Permit Action
Category: A -Sanitary Wastewater
NJPDES Permit No. NJ0023728
PINE BROOK STP
Manalapan Twp, Monmouth County

Dear Mr. Valentino:

Enclosed is a **final** NJPDES permit action identified above which has been issued in accordance with N.J.A.C. 7:14A. This permit action authorizes the permittee to discharge a permitted flow of 8.8 million gallons per day of treated and disinfected domestic waster into Pine Brook which is classified as FW2-NT waters of the state.

Comments were received on the draft permit issued on March 4, 2021. The thirty (30) day public comment period began on March 5, 2021 when the public notice was published in the *Asbury Park Press* newspaper as shown here: <https://njpublicnotices.com>. It ended on April 4, 2021. A summary of the significant and relevant comments received on the draft action during the public comment period, the Department's responses, and an explanation of any changes from the draft action have been included in the Response to Comments document attached hereto as per N.J.A.C. 7:14A-15.16.

Minor changes have been incorporated to this final permit action including updates to the bureau name; correction to the sample type for Total Recoverable Mercury to grab; and removal of information regarding the chlorine produced oxidants recommended quantitation level in Part IV.A.

Any requests for an adjudicatory hearing shall be submitted in writing by certified mail, or by other means which provide verification of the date of delivery to the Department, within 30 days of receipt of this Surface Water Renewal Permit Action in accordance with N.J.A.C. 7:14A-17.2. You may also request a stay of any contested permit condition, which must be justified as per N.J.A.C. 7:14A-17.6 *et seq.* The adjudicatory hearing request must be accompanied by a completed Adjudicatory Hearing Request Form; the stay request must be accompanied by a completed Stay Request Form. Copies of these forms can be downloaded from the Department's website at https://www.nj.gov/dep/dwq/forms_adjudicatory.htm.

As per N.J.A.C. 7:14A-4.2(e)3, any person planning to continue discharging after the expiration date of an existing NJPDES permit shall file an application for renewal at least 180 calendar days prior to the expiration of the existing permit.

All monitoring shall be conducted in accordance with 1) the Department's "Field Sampling Procedures Manual" applicable at the time of sampling (N.J.A.C. 7:14A-6.5(b)4), and/or 2) the method approved by the Department in Part IV of the permit. The Field Sampling Procedures Manual is available at <http://www.nj.gov/dep/srp/guidance/fspm/>.

Questions or comments regarding the final action should be addressed to Dave Thomas either by phone at (609) 292-4860 or email at Dave.Thomas@dep.nj.gov.

Sincerely,

A handwritten signature in black ink that reads "Susan Rosenwinkel". The signature is written in a cursive style.

Susan Rosenwinkel
Bureau Chief
Bureau of Surface Water & Pretreatment Permitting

Enclosures

cc: Permit Distribution List
Masterfile #: 12911; PI #: 47082

Table of Contents for the Final Permit

This permit package contains the items below:

- 1. Cover Letter – Final Permit**
- 2. Table of Contents for the Final Permit**
- 3. List of Acronyms**
- 4. Response to Comments**
- 5. NJPDES Permit Authorization Page**
- 6. Part I – General Requirements: NJPDES**
- 7. Part II – General Requirements: Discharge Categories**
- 8. Part III – Limits and Monitoring Requirements**
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- 10. Appendix A: Chronic Toxicity Testing Specifications for Use in the NJPDES Permit Program**
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New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Surface Water & Pretreatment Permitting

Comments were received on the NJPDES draft Surface Water Renewal Permit Action No. NJ0023728 issued on March 5, 2021. The thirty (30) day public comment period began on March 5, 2021 when the Public Notice was published in the *Asbury Park Press* as shown here: <https://njpublicnotices.com>. Public notice was also provided in the February 17, 2021 *DEP Bulletin*. The comment period ended on April 4, 2021. The following person commented during the public comment period:

- A. Brian J. Valentino, Executive Director & Chief Executive Officer, Western Monmouth Utilities Authority (WMUA) in a letter dated April 1, 2021.

A summary of the timely and significant comments received, the New Jersey Department of Environmental Protection's (Department) responses to these comments, and an explanation of any changes from the draft action have been included below:

1. COMMENT: Effluent Limitations for Nitrate Nitrogen (Nitrate)

The draft permit proposes monthly average effluent limitations for nitrate nitrogen of 10 mg/l and 333.0 kg/day. It is not clear if the "0.0" is necessary as perhaps 333 is precise enough. We understand that these proposed limitations are based on the Department's conclusions that (a) nitrate is discharged in quantifiable amounts in WMUA's treatment plant discharge, and (b) the level of nitrate nitrogen in the receiving water exceeds the numeric criterion in New Jersey's Surface Water Quality Standards (NJSWQS) and therefore the receiving water has been listed as impaired for nitrate in the Department's 2016 Integrated Water Quality Monitoring and Assessment Report. In situations like this, the Department typically imposes an effluent limitation equal to the receiving water criterion of 10 mg/l nitrate nitrogen. Specific comments are as follows:

A. Schedule for Imposition of the Proposed Nitrate Effluent Limitations

Part IV.D.2 of the draft permit specifies that the proposed nitrate effluent limitations will become effective in the 37th month after the effective date of the permit. This does not provide sufficient time for WMUA to comply with these effluent limitations. It will be necessary for WMUA to undertake at least the following: planning and evaluation studies to assess the ability of the existing facility to reduce nitrate below the required limits; definition of any facility upgrades needed to meet the required limits; design of the upgraded facilities along with preparation of plans and specifications; obtain bids for construction of the facility upgrades; secure financing for the facility upgrades; construction of the facility upgrades; and start-up of the new facilities. This will require at least a five-year period of time.

B. Basis and Need for the Proposed Nitrate Effluent Limitations

There is no question that our discharge contains nitrate. That is a natural consequence of the level of treatment we provide to remove ammonia from our wastewater. Regarding the impairment listing, our research indicates that the receiving water was first listed as impaired for nitrate in the 2004 Integrated Report and the listing has been continued since then. It appears to us that there have been no new nitrate data collected to support or refute the listing since 2004. Thus, the impairment is based on information that is seventeen or more years old and we believe that an update is necessary. Reliance on antiquated data is insufficient as a basis to require a significant expenditure as would be needed here. The Department would never accept data as old as that from a permittee trying to justify a permit action.

We also note that while nitrate nitrogen exceeded 10 mg/l in the upstream reaches of the receiving water, the concentrations decreased in the downstream direction and were effectively below 10 mg/l before and in Duhernal Lake. The 10 mg/l numeric criterion in the NJSWQS is based on the suitability of the receiving water as a drinking water resource. Clearly Matchaponix Brook is not, and never will be, used as a source of drinking water. Duhernal Lake is also not directly used as a source of drinking water, although water supply wells operated by the Borough of Sayreville are located near the Lake. We have been provided data by the Borough, and they clearly show that nitrate nitrogen is far below 10 mg/l in the water extracted by the wells. Consequently, there is no threat to human health due to nitrate in the receiving water.

C. History of Nitrate Effluent Limitations

The nitrate criterion at N.J.A.C. 7:9B-1.14(f) has been in effect for many years. A nitrate effluent limitation has never been imposed in the WMUA NJPDES permit during that time. As noted above, the criterion was derived to protect against adverse human health effects in drinking water. In particular, it is based on prevention of an ailment known as methemoglobinemia (also known as blue baby syndrome) which affects infants under 6 months of age who consume water with high nitrate concentrations. Consequently, the 10 mg/l criterion is really a drinking water criterion.

One of the designated uses of FW2 waters is public potable water supply after conventional filtration treatment and disinfection. The Department has taken the position that conventional filtration treatment and disinfection will do little to reduce nitrate concentrations, and therefore the drinking water criterion of 10 mg/l has been required to be satisfied in any potable water supply source. In theory, Matchaponix Brook, since it is classified as an FW2 waterway, can serve as a potable water supply source. Therefore, the Department has required that the drinking water criterion be met in the receiving water. Reasonableness dictates that the receiving water in the vicinity of and downstream of the WMUA discharge is not now and never will be used as a potable water supply source. Even if under some remote possibility, plans were developed to withdraw water for potable use directly from the receiving water downstream of the WMUA discharge, then nitrate limitations could be imposed at that time.

The current and likely uses of this receiving water do not substantiate the environmental and economic costs that will be realized if nitrate removal is required. Those costs would be incurred with no corequisite benefit and only for a hypothetical use that is completely unrealistic.

D. Cost of Nitrate Removal at WMUA

WMUA's historical effluent nitrate concentrations dictate that additional treatment for nitrate removal would be necessary to meet the proposed effluent limitations. The financial cost of nitrate removal from wastewater is substantial. While nitrate removal may be more common for smaller discharges to groundwater from which wells extract drinking water, there are very few municipal facilities of any size with discharges to surface water that provide nitrate removal. Denitrification of the WMUA wastewater flow stream would result in capital construction costs in the range of \$20 - \$30 Million. This cost must be contrasted against the lack of any real benefit to the environment.

Furthermore, providing treatment for nitrate removal does not come without associated adverse environmental consequences. There will be greater sludge production which requires further treatment and disposal, greater energy usage which has its own set of environmental consequences, and an increase in the use of chemicals for treatment. Consequently, providing treatment for nitrate removal at this facility has a definite set of negative economic and environmental consequences. Those costs must be evaluated against

the benefit of making Matchaponix Brook suitable as a potable water supply source. Mandating nitrate removal at this facility results in substantial negative economic and environmental costs for the purpose of achieving the fully unrealistic goal of making Matchaponix Brook suitable as a potable water supply source.

E. Alternative Regulatory Options

WMUA understands the Department's position in proposing a nitrate effluent limitation in this instance. That position is based on strict application of a narrow portion of the NJSWQS. Considering the financial and economic costs associated with requiring these effluent limitations, we believe that there is room for discretion and an opportunity to invoke other aspects of the NJSWQS in this instance. New Jersey's SWQS provide two opportunities for resolution - (1) N.J.A.C. 7:9B-1.9 allows a modification of water quality based effluent limitations (WQBELs) on a case by case basis whether water quality in the receiving water is better than, equal to or does not meet the applicable water quality criteria; and (2) N.J.A.C. 7:9B-1.10 allows the reclassification of a waterway for a less restrictive use (e.g., deletion of the use as a potable water supply source). Each of these two alternatives can provide the Department a mechanism for avoiding the conflict that will ensue over this issue. WMUA is confident that any demonstrations needed to support such a decision will clearly show the impracticality of the Matchaponix Brook ever being used as a potable water supply source.

We note that this matter has statewide implications, i.e., implementation of the nitrate water quality criterion as has been proposed in this matter will lead to certain negative statewide financial and environmental implications. The Department has previously recognized the importance of this matter and has considered changes to its NJSWQS which would impose a WQBEL for nitrate only for discharges upstream of potable water intakes and not for all discharges to waterways that are classified as being suitable for public potable water supply after conventional filtration treatment and disinfection. If modified standards were in place today, an effluent limitation for nitrate would not be proposed for this facility. WMUA will work with the Department and other affected dischargers to resurrect the effort to implement a reasonable change to the SWQS that will resolve this problem.

RESPONSE:

As described in this comment, the draft permit proposes monthly average limitations for nitrate of 10 mg/L and a loading limitation of 333.0 kg/day. The loading limitation has been revised to 333 kg/day in this final permit action to ensure that consistent significant digits are utilized in the conversion from mg/L to kg/day.

As per N.J.A.C. 7:14A-13.6(a), a WQBEL shall be imposed when the Department has determined that the discharge of a pollutant (in this case, nitrate) causes an excursion above a NJSWQS. To determine the need for nitrate WQBELs, the Department analyzed the facility's effluent data as part of the permit renewal process where nitrate was found to be discharged in quantifiable amounts in the effluent. Given that the waterbody is impaired for nitrate, as per the Department's 2016 Integrated Water Quality Monitoring and Assessment Report, a WQBEL was determined necessary for nitrate in accordance with N.J.A.C. 7:14A-13.6(a) and was set equal to the NJSWQS of 10 mg/L based on the impairment status. Responses to the permittee's individual concerns described above are as follows:

A. Schedule for Imposition of the Proposed Nitrate Effluent Limitations

As noted in this comment, Part IV.D.2 of the draft permit specifies that the proposed nitrate effluent limitations will become effective in the 37th month after the effective date of the permit. As allowable under N.J.A.C. 7:14A-6.4, the Department allotted a 3-year compliance schedule for attainment of these effluent limits. However, the Department does agree that upgrades and changes in treatment will be

needed to reliably attain these limits where these upgrades are likely to be significant in scope and may require a longer schedule than three years. This could include tasks as identified in this comment such as the definition, design, construction, financing and start-up of any facility upgrades. However, specifics regarding any design and construction schedule and allotted times for each task will need to be better defined in order for the Department to fully evaluate the issue and in order to consider any adjustments to the schedule.

B. Basis and Need for the Proposed Nitrate Effluent Limitations

As described in the March 5, 2021 draft NJPDES permit, Matchaponix Brook is listed as being impaired for nitrate within the 2016 Integrated Water Quality Monitoring and Assessment Report. In addition, based on a review of the draft 2018/2020 New Jersey Integrated Water Quality Monitoring and Assessment Report (see [NJDEP-Division of Water Monitoring and Standards \(state.nj.us\)](http://www.nj.gov/dep/water/monitoring/standards/)), Matchaponix Brook continues to be listed as impaired. Information regarding the dates of the data collection that serves as the basis for these listings differed for each Integrated Water Quality Monitoring and Assessment Report where these reports are separate and distinct from the NJPDES permit action. New Jersey Register (N.J.R.) VOLUME 47, ISSUE 6, MARCH 16, 2015 ([47 N.J.R. 667\(a\)](http://www.nj.gov/registervolume47issue6/)), VOLUME 49, ISSUE 20, OCTOBER 16, 2017 ([49 N.J.R. 3442\(a\)](http://www.nj.gov/registervolume49issue20/)), and VOLUME 50, ISSUE 13, JULY 2, 2018 ([50 N.J.R. 1507\(b\)](http://www.nj.gov/registervolume50issue13/)) include the public noticed data timeframes.

The Department acknowledges that nitrate may be present in the upstream reaches of the receiving water and levels may decrease due in part to dilution by the time it reaches Duhernal Lake. Nonetheless, Matchaponix Brook continues to be listed as impaired and the Department is required to abide by its regulations in establishing NJPDES permit requirements by utilizing the most recent information from the Integrated Water Quality Monitoring and Assessment Report.

C. History of Nitrate Effluent Limitations

The commenter is correct in that this is the first NJPDES permit action in which nitrate effluent limits have been included. As stated in the Fact Sheet for the August 13, 2014 final NJPDES permit, insufficient facility specific data was available at that time in order to calculate WQBELs where increased monitoring was a requirement of that permit action. This permit renewal serves to establish requirements based on that additional data.

As noted by the commenter, the NJSWQS at N.J.A.C. 7:9B set criteria for Nitrate based on the primary drinking water standard's maximum contaminant level (MCL) of 10 mg/L where nitrate has potential acute public health risks such as infant methemoglobinemia (blue baby syndrome). The receiving water for the facility's discharge, Matchaponix Brook, is classified as FW2-NT waters. All FW2 waters are designated as a potable drinking water source within the NJSWQS at N.J.A.C. 7:9B-1.12(c)4 as follows:

“In all FW2 waters, the designated uses are:

4. Public potable water supply after conventional filtration treatment (a series of processes including filtration, flocculation, coagulation, and sedimentation, resulting in substantial particulate removal but no consistent removal of chemical constituents) and disinfection;”

Based on these regulations and the fact that nitrate is listed on the 2016 Integrated Water Quality Monitoring and Assessment Report, the nitrate standard of 10 mg/L must be applied in accordance with the designated use. In other words, while the Matchaponix Brook may not be presently used as a source of potable water supply in New Jersey, the existing rule does not provide for allowances for these considerations and existing regulations require inclusion of these requirements.

Given the above rationale, newly calculated nitrate WQBELs have been imposed in this final permit action. In accordance with N.J.A.C. 7:14A-17.2(a), the permittee may submit a request for an adjudicatory hearing to contest the newly imposed Nitrate limitations within thirty days of the issuance of the final permit. Additionally, in accordance with N.J.A.C. 7:14A-17.6(a), the permittee may also submit a written request seeking a stay of the nitrate limitation pending the outcome of the adjudicatory hearing.

D. Cost of Nitrate Removal at WMUA

The Department understands that the wastewater treatment plant is not currently designed to remove nitrate and there would be significant costs as well as time needed for planning, evaluation and allocating funding for any plant upgrade. In addition, the Department acknowledges that there are ancillary costs to nitrate removal such as sludge handling and energy costs. As noted previously, the permittee could request a stay of nitrate requirements in accordance with N.J.A.C. 7:14A-17.6 (e). Factors that the Department must consider in any stay request pursuant to N.J.A.C. 17.6(e) include:

- i. The pollution source and its impact upon the affected ecosystem(s);
- ii. The level of pollutant control actually achieved as defined at N.J.A.C. 7:14A-1.2 by the existing treatment facility;
- iii. The degree and extent that short-term treatment alternatives including their cost may be applied to the existing treatment facility and what treatment level improvements may result from these alternatives; and
- iv. The cost to achieve total compliance with permit conditions, including the degree and extent of any negative economic impacts on the permittee and the community in relation to the environmental impacts that will result from not achieving compliance with permit conditions.

These factors must be addressed as part of any stay request.

E. Alternative Regulatory Options

Current regulations require imposition of nitrate effluent limitations as previously described. Nonetheless, the Department had been considering modifications to its existing rules specifically the “Tiered Drinking Water Rule Proposal” which would have allowed consideration of an alternate application of the nitrate SWQS for discharges that do not impact water supply intakes. However, the Department has not moved forward with any rule modification; therefore, the nitrate criterion remains unchanged at this time. As a result, the Department evaluated the necessity of WQBELs in accordance with N.J.A.C. 7:14A-13.5 in this subject permit action as described above. In summary, the Department is mandated to follow the existing regulations and appropriately did so in preparing the draft permit renewal.

The receiving water for the facility’s discharge is the Matchaponix Brook which is classified as FW2-NT waters. As noted previously, one of the designated uses of all FW2 waters is as a potential drinking water source after conventional treatment and disinfection in accordance with N.J.A.C. 7:9B-1.12(c). As described above, the Department acknowledges that the criteria is developed for human health effects even though all FW2 waters may not be used for such purposes. While the Matchaponix Brook may not be presently used as a source of potable water supply in New Jersey, the existing rule does not provide for allowances for these considerations.

As detailed within the draft permit Fact Sheet, any request for a formal reclassification/re-designation of the Matchaponix Brook to non-drinking water use from the WMUA may be forwarded to the:

Bureau of Environmental Analysis, Restoration and Standards,
Attn: Kimberly Cenno, Bureau Chief.

PO Box 420 (Mail Code 401-04I)
401 East State Street
Trenton, New Jersey 08625-0420

Additional information regarding this matter can be found at: <https://www.state.nj.us/dep/wms/bears/swqs-rules.htm>.

No changes to the final permit have been made as a result of this comment.

2. **COMMENT:**
Capacity Assurance Program (CAP) Requirements

A CAP Threshold of 95% is listed in the permit's Table of Effluent Limitations (see Tables III-A-1 and III-A-2 in the permit) where the Fact Sheet describes the new "CAP threshold" parameter as an action level equal to 95%. We presume that "AL" as specified in the Table of Effluent Limitations means Action Level; however, we do not see AL defined anywhere in the permit. Given that the CAP threshold is not an effluent limitation, we request that it be removed from Tables III-A-1 and III-A-2 and recommend that it be placed only in Part IV.D.1.f of the permit. We will gladly cooperate with the discharge monitoring report (DMR) reporting requirements that the Department seeks.

At a minimum, the CAP threshold should be clearly designated as an action level, not an effluent limitation, and that it is not subject to enforcement action in the same way applicable to effluent limitations.

RESPONSE:

"Action Level" is defined within the draft and final NJPDES Permit actions within the List of Acronyms. While the Action Level is not defined specifically within Table III-A-1 and III-A-2, AL is intended to mean action level and simply means that when the 12 month rolling average exceeds 95%, an action is required to be fulfilled to ensure compliance with the Capacity Assurance Program regulations at N.J.A.C. 7:14A-22.16. As stated in Part IV D.1. f. i., ii. and iii:

- f. The permittee shall comply with the following Capacity Assurance Program (CAP) requirements:
 - i. The permittee shall ensure compliance with the CAP regulations and upon triggering the action level in Part III, the permittee is required to initiate the requirements of N.J.A.C. 7:14A-22.16.
 - ii. For the calculation of the parameter "CAP Threshold" in Part III of the permit, the permittee shall use the permitted flow of 8.8 MGD and the 12-month rolling average flow calculated for the parameter of "Flow, In Conduit or Thru Treatment Plant" in the calculation of the percentage of the permitted flow for the month. This percentage shall be reported as the CAP Threshold percentage.
 - iii. For more information concerning the CAP, please contact the Bureau of Environmental, Engineering and Permitting at (609) 984-4429.

Inclusion of the AL within Tables III-A-1 and III-A-2 is intended to aid the permittee in tracking these levels to ensure compliance with this requirement. The commenter is correct in that an exceedance of the AL does not trigger enforcement penalties, as it is not a limit, but rather may require submission of a Capacity Assurance Report. Additional information regarding this requirement can be obtained within the Frequently Asked Questions document for the Capacity Assurance Program at www.state.nj.us/dep/dwq/pdf/CAP2017_FAQs.pdf.

No change has been made to the final permit in response to this comment.

3. COMMENT:
Total Dissolved Solids (TDS) Effluent Limitations in Fact Sheet

We note a discrepancy in the TDS “existing limits” on page 20 of 22 in the Fact Sheet. The monthly average existing limit is 600 mg/l, not 500 mg/l.

RESPONSE:

While the correct values were included in Tables III-A-1 and III-A-2 of the draft NJPDES permit, the TDS monthly average value in the TDS “existing limits” column on page 20 of 22 in the Fact Sheet was incorrect within the Fact Sheet and is hereby corrected for the purpose of the Administrative Record (deletions shown with strikethrough, additions shown with underline):

PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA (5)	EXISTING LIMITS	INITIAL LIMITS	FINAL LIMITS	MONITORING	
							Freq.	Sample Type
Total Dissolved Solids	kg/d	Monthly Avg. Weekly Avg.	13646.2 16521.9	16700 - 20000 25000	20000 25000	20000 25000	2/Week	Calculated
Total Dissolved Solids	mg/L	Monthly Avg. Weekly Avg.	488.6 541.5	500 <u>600</u> 750	600 750	600 750	2/Week	24 Hr Composite

As the Fact Sheet is a part of the Administrative Record and not a part of the final permit, this “Response to Comments” document serves to amend the Administrative Record.

4. COMMENT:
Equalization Basin and Reed Beds in Fact Sheet

We recently decommissioned the equalization basin and constructed a new equalization tank immediately downstream of grit removal in the process diagram. As part of the construction of the new equalization tank we completely removed the reed beds. We sent a letter and application on April 24, 2019 to the Department requesting that permit NJG0129534 be revoked where this letter is provided as an attachment to the comments document. A response has not yet been received from the Department. However, the Department should consider removing all mention of this permit from the proposed draft discharge permit and page 2 of the Fact Sheet should be updated by moving the equalization basin to item #2 and renaming it “Equalization Tank.” The process flow diagram attached to the permit should be updated to reflect this change as well.

RESPONSE:

The application dated April 24, 2019 requesting that permit NJG0129534 be revoked was deemed administratively complete and was forwarded to the Bureau of Groundwater, Residuals and Permit Administration for technical review and processing. Should you have any further questions regarding the status of this permit application, please contact the Bureau of Groundwater, Residuals and Permit Administration at dwq_groundwater@dep.nj.gov and refer to the NJPDES permit number referenced above.

Given this change to the treatment units, and to ensure that the NJPDES permit reflects the most current information, item Number 5 noted below as included on Page 2 of the Fact Sheet is hereby corrected for the purpose of the Administrative Record as follows (deletions shown with strikethrough, additions shown with underline):

“Sanitary wastewater is processed through the following units:

1. grit chamber,
2. equalization tank,
3. primary clarifiers,
4. trickling filters,
5. secondary clarifiers,
6. ~~equalization basin~~
6. nitrification aeration tanks,
7. tertiary clarifiers,
8. Pressure Filters,
9. Ultraviolet disinfection”

As the Fact Sheet is a part of the Administrative Record and not a part of the final permit, this “Response to Comments” document serves to amend the Administrative Record.

5. COMMENT:
Dissolved Oxygen Sampling Frequency

Section 6 of the Fact Sheet lists the DO sample frequency as once per day. This contradicts the sample frequency of once per week listed in Table III-A-2 of the draft permit. It appears that the Fact Sheet sample frequency is a typo and should be changed to match the draft permit frequency of once per week, which is also the sample frequency in our recently expired permit.

RESPONSE:

The commenter is correct where the correct monitoring frequency is once per week as listed in Tables III-A-1 and III-A-2. This paragraph should have been stated as follows:

“The monitoring frequency of ~~once per day~~ once per week is being carried forward from the existing permit and is consistent with N.J.A.C. 7:14A-14.2. The sample type shall be **grab**.”

As the Fact Sheet is a part of the Administrative Record and not a part of the final permit, this “Response to Comments” document serves to amend the Administrative Record.

6. COMMENT:
Name and Address

We have noticed that throughout the cover letter, the public notice and the draft permit have several references to “The Western Monmouth *County* Utilities Authority.” Please strike the word “County” wherever it may appear in our name. The legal name of our entity is simply “Western Monmouth Utilities Authority.” We also request that all references to the now-abandoned “Utility Road” mailing address be updated to reflect our active mailing address of “103 Pension Road, Manalapan, NJ 07726”.

RESPONSE:

The Department acknowledges that the legal name of your entity is “Western Monmouth Utilities Authority” as indicated in your 2019 NJPDES renewal application. Any references in relation to “county” have been removed and the final permit reflects this as well on the cover letter and permit authorization page.



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: NJ0023728

Final: Surface Water Renewal Permit Action

Permittee:

Western Monmouth Utilities Authority
103 Pension Rd
Manalapan Twp, NJ 07726

Co-Permittee:

Property Owner:

Western Monmouth Utilities Authority
103 Pension Rd
Manalapan Twp, NJ 07726

Location Of Activity:

Pine Brook STP
103 Pension Rd
Manalapan, Monmouth County

Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
A -Sanitary Wastewater - Renewal	07/07/2021	10/01/2021	09/30/2026

**By Authority of:
Commissioner's Office**

DEP AUTHORIZATION
Susan Rosenwinkel, Bureau Chief
Bureau of Surface Water & Pretreatment Permitting
Water Pollution Management Element

(Terms, conditions and provisions attached hereto)

Division of Water Quality

List of Acronyms

ACR	Acute to Chronic Ratio
AL	Action Level
AML	Average Monthly Limitation
BMP	Best Management Practices
BPJ	Best Professional Judgement
CAP	Capacity Assurance Program
CFR	Code of Federal Regulations
CV	Coefficient of Variation
CWEA/CWA	Clean Water Enforcement Act/Clean Water Act
Department	New Jersey Department of Environmental Protection
DGW	Discharge to Groundwater
DMR	Discharge Monitoring Report
DRBC	Delaware River Basin Commission
DSN	Discharge Serial Number
DSW	Discharge to Surface Water
EDP/M	Effective Date of the Permit/Permit Modification
EEQ	Existing Effluent Quality
ELG	Effluent Limitation Guideline
g/d or g/day	Grams per Day
IEC	Interstate Environmental Commission
IPP	Industrial Pretreatment Program
kg/d or kg/day	Kilograms per Day
LTA	Long Term Average
MA1CD10 or 1Q10	Minimum average one day flow with a statistical recurrence interval of ten years
MA7CD10 or 7Q10	Minimum average seven consecutive day flow with a statistical recurrence interval of ten years
MA30CD5 or 30Q5	Minimum average 30 consecutive day flow with a statistical recurrence interval of five years
mg/L	Milligrams per Liter
MDL	Maximum Daily Limitation
MGD	Million Gallons per Day
MRF	Monitoring Report Form
NAICS	North American Industry Classification System
NPDES/NJPDES	National/New Jersey Pollutant Discharge Elimination System
NJR	New Jersey Register
PCB	Polychlorinated Biphenyls
PMP	Pollutant Minimization Plan
POTW	Publicly Owned Treatment Works
RPMF	Reasonable Potential Multiplying Factor
RTR	Residuals Transfer Report
RQL	Recommended Quantification Levels
RWBR	Reclaimed Water for Beneficial Reuse
SIC	Standard Industrial Classification
SIU	Significant Indirect User
SQAR	Sludge Quality Assurance Regulations
SWQS	Surface Water Quality Standards
TMDL	Total Maximum Daily Load
TR	Total Recoverable
TRIR	Toxicity Reduction Implementation Requirements
USEPA TSD	USEPA Technical Support Document for Water Quality Based Toxics Control (EPA/505/2-90-001, March 1991)
µg/L	Micrograms per Liter
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UV	Ultraviolet
WCR	Wastewater Characterization Report
WER	Water Effects Ratio
WLA	Wasteload Allocation
WWTP	Wastewater Treatment Plant
WQBEL	Water Quality Based Effluent Limitation

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(c) & (d)
 - 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. Requirements for Discharges to Surface Waters

- a. In addition to conditions in Part I of this permit, the conditions in this section are applicable to activities at the permitted location and are incorporated by reference. The permittee is required to comply with the regulations which are in effect as of the effective date of the final permit.
 - i. Surface Water Quality Standards N.J.A.C. 7:9B-1
 - ii. Water Quality Management Planning Regulations N.J.A.C. 7:15

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. Submit a complete permit renewal application 180 days before the expiration date.

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. Standard Reporting Requirements – Monitoring Report Forms (MRFs)

- a. All MRFs shall be electronically submitted to the Department's MRF Submission Service.
- b. MRF data submission shall be in accordance with the guidelines and provisions outlined in the Department's Electronic Data Interchange (EDI) agreement with the permittee.
- c. MRFs shall be submitted at the frequencies identified in Part III of this permit.
- d. All MRFs shall be certified by the highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility.
- e. The highest ranking official may delegate responsibility to certify the MRFs in his or her absence. Authorizations for other individuals to certify shall be made in accordance with N.J.A.C. 7:14A-4.9(b).
- f. Monitoring results shall be submitted in accordance with the current NJPDES MRF Reference Manual and any updates thereof.
- g. If monitoring for a parameter is not required in a monitoring period, the permittee must report "CODE=N" for that parameter.
- h. If, for a monitored location, there are no discharge events during an entire monitoring period, the permittee must notify the Department when submitting the monitoring results by checking the "No Discharge this monitoring period" box on the paper or electronic version of the monitoring report submittal form.

7. Standard Reporting Requirements - Electronic Submission of NJPDES Information

- a. Effective December 21, 2020, the below identified documents and reports shall be electronically submitted to the NJDEP via the Department's designated Electronic Submission Service.
 - i. Non-compliance reports required by N.J.A.C. 7:14A-6.10 and 40 CFR 122.41(1)(6) and (7) related to sanitary sewer overflows or bypass events.

8. Operator Certification

- a. Pursuant to N.J.A.C. 7:10A-1.1 et seq. every wastewater system not exempt pursuant to N.J.A.C. 7:10A-1.1(b) requires a licensed operator. The operator of a system shall meet the Department's requirements pursuant to N.J.A.C. 7:10A-1.1 and any amendments. The name of the proposed operator, where required shall be submitted to the Department at the address below, in order that his/her qualifications may be determined prior to initiating operation of the treatment works.
 - i. Notifications shall be submitted to:
NJDEP
Bureau of Licensing & Registration
Mail Code 401-04E
PO Box 420
Trenton, New Jersey 08625 - 0420
(609) 984-6507
- b. The permittee shall notify the Department of any changes in licensed operator within two weeks of the change.

9. Operation Restrictions

- a. The operation of a waste treatment or disposal facility shall at no time create: (a) a discharge, except as authorized by the Department in the manner and location specified in Part III of this permit; (b) any discharge to the waters of the state or any standing or ponded condition for water or waste, except as specifically authorized by a valid NJPDES permit.

PART III

LIMITS AND MONITORING REQUIREMENTS

MONITORED LOCATION: 001A Sanitary Outfall RECEIVING STREAM: Pine Brook STREAM CLASSIFICATION: FW2-NT(C2) DISCHARGE CATEGORY(IES): A - Sanitary Wastewater

Location Description

The influent shall be monitored before any treatment, other than degritting, and before the addition of any internal waste streams. The effluent shall be monitored after the last treatment step and before discharge. Outfall 001A shall discharge treated wastewater to the Pine Brook, within the Raritan River basin, classified as FW2-Non Trout waters at : Latitude 40deg. 18' 59" and Longitude 74deg. 21' 26".

Contributing Waste Types

Sanitary

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: 1 Initial PHASE Start Date: 10/01/2021 PHASE End Date: 09/30/2024

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	*****	*****	*****	REPORT Annual Average	REPORT Monthly Average	REPORT Daily Maximum	MGD	Continuous	Metered
	January thru December	QL	***		***	***	***			
CAP Threshold	Effluent Gross Value	*****	*****	*****	*****	REPORT 12 Month Rolling Av	*****	PERCENT	1/Month	Calculated
	January thru December	AL	***		***	***	95			
pH	Raw Sew/influent	*****	*****	*****	REPORT Report Per Minimum	*****	REPORT Report Per Maximum	SU	2/Day	Grab
	January thru December	QL	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Report Per Minimum	*****	9.0 Report Per Maximum	SU	2/Day	Grab
	January thru December	QL	***		***	***	***			

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Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: 1 Initial **PHASE Start Date:** 10/01/2021 **PHASE End Date:** 09/30/2024

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Solids, Total Suspended January thru December	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended January thru December	Effluent Gross Value	1000 Monthly Average	1500 Weekly Average	KG/DAY	*****	30 Monthly Average	45 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended January thru December	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Week	Calculated
	QL	***	***		***	***	***			
Oil and Grease January thru December	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Instant Maximum	MG/L	1/Quarter	Grab
	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N) May thru October	Effluent Gross Value	50 Monthly Average	74.9 Weekly Average	KG/DAY	*****	1.5 Monthly Average	2.25 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N) November thru April	Effluent Gross Value	333 Monthly Average	753 Daily Maximum	KG/DAY	*****	10 Monthly Average	22.6 Daily Maximum	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Nitrate Total (as N) January thru December	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	KG/DAY	*****	REPORT Monthly Average	REPORT Daily Maximum	MG/L	1/Month	24 Hour Composite
	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: 1 Initial **PHASE Start Date:** 10/01/2021 **PHASE End Date:** 09/30/2024

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
E. Coli	Effluent Gross Value	*****	*****	*****	*****	126 Monthly Geo Avg	REPORT Report Per Maximum	#/100ML	8/Month	Grab
	January thru December	QL	***		***	***	***			
Solids, Total Dissolved (TDS)	Effluent Gross Value	20000 Monthly Average	25000 Weekly Average	KG/DAY	*****	600 Monthly Average	750 Weekly Average	MG/L	2/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Effluent Gross Value	333 Monthly Average	500 Weekly Average	KG/DAY	*****	10 Monthly Average	15 Weekly Average	MG/L	1/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Week	Calculated
	January thru December	QL	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	48.5 Report Per Minimum	*****	*****	%EFFL	1/Year	Composite
	January thru December	QL	***		***	***	***			
Temperature, oC	Raw Sew/influent	*****	*****	*****	REPORT Report Per Minimum	REPORT Monthly Average	REPORT Report Per Maximum	DEG.C	2/Day	Grab
	January thru December	QL	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: 1 Initial **PHASE Start Date:** 10/01/2021 **PHASE End Date:** 09/30/2024

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Temperature, oC	Effluent Gross Value	*****	*****	*****	REPORT Report Per Minimum	REPORT Monthly Average	REPORT Report Per Maximum	DEG.C	2/Day	Grab
	QL	***	***		***	***	***			
Oxygen, Dissolved (DO)	Effluent Gross Value	*****	*****	*****	6.0 Weekly Av Minimum	REPORT Daily Avg Minimum	*****	MG/L	1/Week	Grab
	QL	***	***		***	***	***			
Phosphorus, Total (as P)	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Month	24 Hour Composite
	QL	***	***		***	***	***			

Table III - A - 2: Surface Water DMR Limits and Monitoring Requirements

PHASE: 2 Final **PHASE Start Date:** 10/01/2024 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	*****	*****	*****	REPORT Annual Average	REPORT Monthly Average	REPORT Daily Maximum	MGD	Continuous	Metered
	QL	***	***		***	***	***			
CAP Threshold	Effluent Gross Value	*****	*****	*****	*****	REPORT 12 Month Rolling Av	*****	PERCENT	1/Month	Calculated
	AL	***	***		***	95	***			

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Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 2: Surface Water DMR Limits and Monitoring Requirements

PHASE: 2 Final **PHASE Start Date:** 10/01/2024 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
pH January thru December	Raw Sew/influent	*****	*****	*****	REPORT Report Per Minimum	*****	REPORT Report Per Maximum	SU	2/Day	Grab
	QL	***	***		***	***	***			
pH January thru December	Effluent Gross Value	*****	*****	*****	6.0 Report Per Minimum	*****	9.0 Report Per Maximum	SU	2/Day	Grab
	QL	***	***		***	***	***			
Solids, Total Suspended January thru December	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended January thru December	Effluent Gross Value	1000 Monthly Average	1500 Weekly Average	KG/DAY	*****	30 Monthly Average	45 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended January thru December	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Week	Calculated
	QL	***	***		***	***	***			
Oil and Grease January thru December	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Instant Maximum	MG/L	1/Quarter	Grab
	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N) May thru October	Effluent Gross Value	50 Monthly Average	74.9 Weekly Average	KG/DAY	*****	1.5 Monthly Average	2.25 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 2: Surface Water DMR Limits and Monitoring Requirements

PHASE: 2 Final **PHASE Start Date:** 10/01/2024 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Nitrogen, Ammonia Total (as N) November thru April	Effluent Gross Value	333 Monthly Average	753 Daily Maximum	KG/DAY	*****	10 Monthly Average	22.6 Daily Maximum	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Nitrate Total (as N) January thru December	Effluent Gross Value	333 Monthly Average	REPORT Daily Maximum	KG/DAY	*****	10 Monthly Average	REPORT Daily Maximum	MG/L	1/Month	24 Hour Composite
	QL	***	***		***	***	***			
E. Coli January thru December	Effluent Gross Value	*****	*****	*****	*****	126 Monthly Geo Avg	REPORT Report Per Maximum	#/100ML	8/Month	Grab
	QL	***	***		***	***	***			
Solids, Total Dissolved (TDS) January thru December	Effluent Gross Value	20000 Monthly Average	25000 Weekly Average	KG/DAY	*****	600 Monthly Average	750 Weekly Average	MG/L	2/Week	24 Hour Composite
	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC January thru December	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC January thru December	Effluent Gross Value	333 Monthly Average	500 Weekly Average	KG/DAY	*****	10 Monthly Average	15 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC January thru December	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Week	Calculated
	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 2: Surface Water DMR Limits and Monitoring Requirements

PHASE:2 Final **PHASE Start Date:** 10/01/2024 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
IC25 Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	48.5 Report Per Minimum	*****	*****	%EFFL	1/Year	Composite
	QL	***	***		***	***	***			
Temperature, oC	Raw Sew/influent	*****	*****	*****	REPORT Report Per Minimum	REPORT Monthly Average	REPORT Report Per Maximum	DEG.C	2/Day	Grab
	QL	***	***		***	***	***			
Temperature, oC	Effluent Gross Value	*****	*****	*****	REPORT Report Per Minimum	REPORT Monthly Average	REPORT Report Per Maximum	DEG.C	2/Day	Grab
	QL	***	***		***	***	***			
Oxygen, Dissolved (DO)	Effluent Gross Value	*****	*****	*****	6.0 Weekly Av Minimum	REPORT Daily Avg Minimum	*****	MG/L	1/Week	Grab
	QL	***	***		***	***	***			
Phosphorus, Total (as P)	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Month	24 Hour Composite
	QL	***	***		***	***	***			

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Manganese, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Arsenic, Total Recoverable (as As)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Selenium, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Thallium, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Beryllium, Total Recoverable (as Be)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Barium, Total Recoverable (as Ba)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Nickel, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Silver, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Zinc, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Cadmium, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Lead, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chromium, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Copper, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Antimony, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Mercury Total Recoverable	Effluent Gross Value	REPORT	UG/L	Grab	January thru December

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Acenaphthylene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Acenaphthene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Anthracene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(b)fluoranthene (3,4-benzo)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(k)fluoranthene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(a)pyrene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Bis(2-chloroethyl) ether	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Bis(2-chloroethoxy) methane	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Bis (2-chloroiso- propyl) ether	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Butyl benzyl phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chrysene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Diethyl phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Dimethyl phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,2-Diphenyl- hydrazine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Fluoranthene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Fluorene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Hexachlorocyclopentadiene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Hexachloroethane	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Indeno(1,2,3-cd)pyrene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Isophorone	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodi-n-propylamine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodiphenylamine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodimethylamine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Nitrobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Phenanthrene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Pyrene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(ghi)perylene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(a)anthracene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,2-Dichlorobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,2,4-Trichlorobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Dibenzo(a,h) anthracene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,3-Dichlorobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,4-Dichlorobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2-Chloronaphthalene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Di-n-octyl Phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dinitrotoluene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,6-Dinitrotoluene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
3,3'-Dichloro-benzidine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4-Bromophenyl phenyl ether	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Naphthalene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Bis(2-ethylhexyl) phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Di-n-butyl phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzdine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Malathion	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Demeton	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Hexachlorobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Hexachlorobutadiene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Mirex	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,3-Dichloropropene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,2,4,5-Tetrachloro-benzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodiethyl-amine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosopyrrolidine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Carbon Tetrachloride	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,2-Dichloroethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Bromoform	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Chloroform	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Toluene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Benzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Acrolein	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Acrylonitrile	Effluent Gross Value	REPORT	UG/L	Grab	January thru December

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Chlorobenzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Chlorodibromomethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Ethylbenzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Methyl Bromide	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Methyl Chloride	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Methylene Chloride	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Tetrachloroethylene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Trichlorofluoro- methane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1-Dichloroethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1-Dichloroethylene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1,1-Trichloro- ethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1,2-Trichloro- ethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1,2,2-Tetrachloro- ethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,2-Dichloropropane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,2-trans-Dichloro- ethylene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
2-Chloroethyl Vinyl Ether (Mixed)	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Bromodichloromethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Vinyl Chloride	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Trichloroethylene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Methoxychlor	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-Nitrosodi-n-butylamine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chloroethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Cyanide, free	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Asbestos	Effluent Gross Value	REPORT	FIBERS/L	24 Hour Composite	January thru December
Parachloro-m-cresol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Parathion	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4,5-Trichloro-phenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Delta BHC, Total (ug/l)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Endosulfan Sulfate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Beta Endosulfan	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Alpha Endosulfan	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Endrin Aldehyde	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1016 (Arochlor 1016)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,3,7,8-Tetrachloro- dibenzo-p-dioxin	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4,4'-DDT(p,p'-DDT)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4,4'-DDD(p,p'-DDD)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4,4'-DDE(p,p'-DDE)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Aldrin	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Alpha BHC	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Beta BHC	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Gamma BHC (lindane),	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chlordane	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Dieldrin	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Endosulfans, Total (alpha and beta)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Endrin	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Toxaphene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Heptachlor	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Heptachlor Epoxide	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1221 (Arochlor 1221)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1232 (Arochlor 1232)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1242 (Arochlor 1242)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1248 (Arochlor 1248)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1254 (Arochlor 1254)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1260 (Arochlor 1260)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Polychlorinated Biphenyls (PCBs)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chlorpyrifos	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2-Chlorophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2-Nitrophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dichlorophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dimethylphenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Annual Reporting Requirements:

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

Table III - A - 3: Surface Water WCR - Annual Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:** 10/01/2021**PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
2,4-Dinitrophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4,6-Trichloro-phenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4-Chlorophenyl phenyl ether	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4-Nitrophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4,6-Dinitro-o-cresol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Phenol Single Compound	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Pentachlorophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Pentachlorobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Guthion	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

MONITORED LOCATION:

RWBR Beneficial Reuse SW

RECEIVING STREAM:

STREAM CLASSIFICATION:

DISCHARGE CATEGORY(IES):

A - Sanitary Wastewater

Location Description

Specific requirements for monitoring beneficial reuse can be found in Part IV. Approved public access sites can be found in Appendix B.

Contributing Waste Types

Sanitary

Requirements have not been defined for this Monitored Location.

PART IV

SPECIFIC REQUIREMENTS: NARRATIVE

Sanitary Wastewater

A. MONITORING REQUIREMENTS

1. Standard Monitoring Requirements

- a. Each analysis required by this permit shall be performed by a New Jersey Certified Laboratory that is certified to perform that analysis.
- b. The Permittee shall perform all water/wastewater analyses in accordance with the analytical test procedures specified in 40 CFR 136, unless other test procedures have been approved by the Department in writing or as otherwise specified in the permit.
- c. When more than one test procedure is approved for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR 136, 40 CFR 122.21(e)(3), and 40 CFR 122.44(i)(1)(iv).
- d. All sampling shall be conducted in accordance with the Department's Field Sampling Procedures Manual, or an alternate method approved by the Department in writing.
- e. All monitoring shall be conducted as specified in Part III.
- f. All sample frequencies expressed in Part III are minimum requirements. Any additional samples taken consistent with the monitoring and reporting requirements contained herein shall be reported on the Monitoring Report Forms.
- g. Annual and semi-annual wastewater testing shall be conducted in a different quarter of each year so that tests are conducted in each of the four permit quarters of the permit cycle. Testing may be conducted during any month of the permit quarters.
- h. Monitoring for Wastewater Characterization Report parameters shall be conducted concurrently with the Whole Effluent Toxicity (WET) monitoring, when feasible.
- i. Any influent and effluent sampling for toxic pollutant analyses shall be collected concurrently.
- j. Flow shall be measured using Flow Meter.

B. RECORDKEEPING

1. Standard Recordkeeping Requirements

- a. The permittee shall retain records of all monitoring information, including 1) all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation (if applicable), 2) copies of all reports required by this NJPDES permit and 3) all data used to complete the application for a NJPDES permit, for a period of at least 5 years from the date of the sample, measurement, report, application or record.

Sanitary Wastewater

- b. Records of monitoring information shall include 1) the date, locations, and time of sampling or measurements, 2) the individual(s) who performed the sampling or measurements, 3) the date(s) the analyses were performed, 4) the individual(s) who performed the analyses, 5) the analytical techniques or methods used, and 6) the results of such analyses.

C. SUBMITTALS

1. Standard Submittal Requirements

- a. The permittee shall prepare an Operation and Maintenance (O&M) Manual including an emergency plan in accordance with requirements of N.J.A.C. 7:14A-6.12(c).
- b. Submit a certification that an Operations and Maintenance (O&M) Manual has been prepared within 90 days from the effective date of the permit (EDP).
- c. The permittee shall amend the Operation & Maintenance Manual whenever there is a change in the treatment works design, construction, operations or maintenance which substantially changes the treatment works operations and maintenance procedures.

2. Compliance Schedule Progress Reports

- a. In accordance with N.J.A.C. 7:14A-6.4(a), a schedule of compliance has been included for Nitrate, including interim deadlines for annual progress reports that outline the progress towards compliance with the conditions of the permit.
 - i. Submit a Compliance Schedule Progress Report within 12 months from the effective date of the permit (EDP).
 - ii. Submit a Compliance Schedule Progress Report within 24 months from the effective date of the permit (EDP).
- b. The compliance schedule progress report(s) shall be submitted to the following Departmental entities:
 - i. NJDEP: Division of Water Quality
Mail Code - 401-02B
Bureau of Surface Water and Pretreatment Permitting
P.O. Box 420
Trenton, New Jersey 08625-0420.
 - ii. NJDEP: Northern Bureau of Water Compliance and Enforcement
7 Ridgedale Avenue
Cedar Knolls, New Jersey 07927-1112

D. FACILITY MANAGEMENT

1. Discharge Requirements

- a. The permittee shall discharge at the location(s) specified in PART III of this permit.
- b. The permittee shall not discharge foam or cause foaming of the receiving water that 1) forms objectionable deposits on the receiving water, 2) forms floating masses producing a nuisance, or 3) interferes with a designated use of the waterbody.
- c. The permittee's discharge shall not produce objectionable color or odor in the receiving stream.

- d. The discharge shall not exhibit a visible sheen.
- e. When quantification levels (QL) and effluent limits are both specified for a given parameter in Part III, and the QL is less stringent than the effluent limit, effluent compliance will be determined by comparing the reported value against the QL.
- f. The permittee shall comply with the following Capacity Assurance Program (CAP) requirements:
 - i. The permittee shall ensure compliance with the CAP regulations and upon triggering the action level in Part III, the permittee is required to initiate the requirements of N.J.A.C. 7:14A-22.16.
 - ii. For the calculation of the parameter "CAP Threshold" in Part III of the permit, the permittee shall use the permitted flow of 8.8 MGD and the 12-month rolling average flow calculated for the parameter of "Flow, In Conduit or Thru Treatment Plant" in the calculation of the percentage of the permitted flow for the month. This percentage shall be reported as the CAP Threshold percentage.
 - iii. For more information concerning the CAP, please contact the Bureau of Environmental, Engineering and Permitting at (609) 984-4429.

2. Applicability of Discharge Limitations and Effective Dates

- a. Surface Water Discharge Monitoring Report (DMR) Form Requirements
 - i. This permit includes multiple phases for DSN001A.
The initial limitation and monitoring conditions are effective from the effective date of the permit (EDP) until EDP + 36 months. Final limitation and monitoring conditions become effective on EDP + 37 months.
- b. Wastewater Characterization Report (WCR) Form Requirements
 - i. The final effluent monitoring conditions contained in PART III for DSN001A apply for the full term of this permit action.

3. Operation, Maintenance and Emergency conditions

- a. The permittee shall operate and maintain treatment works and facilities which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit as specified in the Operation & Maintenance Manual.
- b. The permittee shall develop emergency procedures to ensure effective operation of the treatment works under emergency conditions in accordance with N.J.A.C. 7:14A-6.12(d).

4. Introduction to RWBR Requirements

- a. The following RWBR sections contain the conditions for the permittee to beneficially reuse treated effluent or Reclaimed Water for Beneficial Reuse (RWBR), provided the effluent is in compliance with the criteria specified for the particular use specified below.
- b. There are two levels of RWBR uses. Public Access and Restricted Access.

5. Inactive RWBR Requirements

- a. The following RWBR sections are included in this permit for various reuse applications. These sections are inactive and not effective unless the status column in Appendix B states the reuse activity is approved. Any specific RWBR type not approved in the Appendix, may be approved at a later date by a minor modification permit action once the appropriate submittal requirements have been received and approved by the Department.

6. RWBR Requirements for Public Access

- a. The Public Access reuse types authorized by this permit are those approved in Appendix B. Other Public Access reuse types may be added by minor modification of this permit.
- b. The hydraulic loading rate for land application of RWBR shall not exceed 2 inches per week.
- c. Any water diverted for RWBR shall be monitored and comply with the high level treatment requirements listed below and the operational requirements in the approved Operations Protocol. If any of these requirements are not achieved, the effluent shall not be diverted for RWBR.
 - i. Total Suspended Solids (TSS): Instantaneous maximum of 5.0 mg/L prior to disinfection.
 - ii. Nitrogen, Total (NO₃ + NH₃): Daily maximum of 10.0 mg/L. This requirement only applies when RWBR is land applied.
 - iii. Fecal Coliform: 7-day median maximum of 2.2 colonies per 100 mL and an instantaneous maximum of 14 colonies per 100 mL.
 - iv. Ultraviolet Disinfection: If the permittee disinfects utilizing UV disinfection, a minimum design UV dose of 100 mJ/cm² under maximum daily flow must be used. All aspects of the UV system must meet the requirements of the May 2003 (or most recent) National Water Research Institute's Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse, second edition.
- d. Monitoring of the diverted public access RWBR shall be conducted in the following manner:
 - i. Sampling for TSS shall be immediately prior to disinfection. Monitoring for TSS shall be a grab sample once per week.
 - ii. Sampling for Turbidity in systems shall be sampled immediately prior to disinfection. The permittee shall establish a correlation between Turbidity and TSS in their effluent as detailed in the Reuse Technical Manual. A statistically significant correlation between Turbidity and TSS shall be established prior to commencement of the RWBR program and shall be incorporated into the Operations Protocol and updated annually. The initial correlation should be done as part of a daily monitoring program for at least 30 days. To ensure continuous compliance with the 5.0 mg/L TSS level, Turbidity must be monitored continuously and achieve the level established in the Operations Protocol.
 - iii. For UV systems, UV lamp intensity, UV transmittance and UV flow rate shall be monitored continuously after full disinfection treatment.
 - iv. Monitoring for Fecal Coliform shall be a grab sample, taken in accordance with Part III, at least a minimum of once per week taken immediately after disinfection. Fecal coliform shall be monitored immediately after disinfection.
 - v. Monitoring for Total Nitrogen (NO₃ + NH₃) shall be a composite sample, taken in accordance with Part III, at least once per week taken prior to RWBR diversion. Total Nitrogen (NO₃ + NH₃) shall be monitored after the appropriate disinfection treatment is achieved.

- e. All monitoring results of the RWBR shall be reported each month on Wastewater Characterization Reports (WCR). Unless noted otherwise, the highest of all measured values for diverted RWBR shall be reported.
 - i. If ultraviolet disinfection is used, the lowest sampling results obtained during the reporting month shall be reported for lamp intensity and UV transmittance.

7. RWBR Requirements for Restricted Access--Land Application and Non Edible Crops

- a. The Restricted Access--Land Application and Non Edible Crops reuse types authorized by this permit are those approved in Appendix B. Other Restricted Access--Land Application and Non Edible Crops reuse types may be added by minor modification of this permit.
- b. The hydraulic loading rate for land application of RWBR shall not exceed 2 inches per week.
- c. Any water diverted for RWBR shall be monitored and comply with the high level treatment requirements listed below and the operational requirements in the approved Operations Protocol. If any of these requirements are not achieved, the effluent shall not be diverted for RWBR.
- d. Nitrogen, Total (NO₃ + NH₃): Daily maximum of 10 mg/L. Frequency of sampling for Total Nitrogen shall be at minimum monthly. The sample shall be collected as a composite sample taken prior to diversion for RWBR. Nitrogen, Total (NO₃ + NH₃) shall be monitored after the appropriate disinfection treatment time is achieved. This requirement only applies when RWBR is land applied, however, this requirement does not apply to spray irrigation within a fenced perimeter or otherwise restricted area.
- e. E. Coli 126 colonies per 100 mL as a geometric mean. Frequency of sampling for E. Coli shall be in accordance with Part III of this permit. The sample shall be collected as a grab sample taken immediately after disinfection.
- f. Ultraviolet Disinfection: For UV disinfection, a minimum design UV dose of 75 mJ/cm² under maximum daily flow must be used. This dose must also be based on continuous monitoring of UV lamp intensity, UV transmittance and UV flow rate. All aspects of the UV system must meet the requirements of the May 2003 (or most recent) National Water Research Institute's Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse, second edition. UV lamp intensity, UV transmittance and UV flow rate shall be monitored continuously after full disinfection treatment.
- g. All monitoring results of the RWBR shall be reported each month on Wastewater Characterization Reports (WCR). Unless noted otherwise, the highest of all measured values for diverted RWBR shall be reported.

8. RWBR Requirements for Restricted Access--Construction and Maintenance Operations

- a. The Restricted Access--Construction and Maintenance Operations reuse types authorized by this permit are those approved in Appendix B. Other Restricted Access--Construction and Maintenance Operations reuse types may be added by minor modification of this permit.
- b. E. Coli: 126 colonies per 100 mL as a geometric mean. Frequency of sampling for E. Coli shall be in accordance with Part III of this permit. The sample shall be collected as a grab sample taken immediately after disinfection. This requirement does not apply to sanitary sewer jetting.

9. RWBR Requirements for Restricted Access--Industrial Systems

- a. The Restricted Access--Industrial Systems reuse types authorized by this permit are those approved in Appendix B. Other Restricted Access--Industrial Systems reuse types may be added by minor modification of this permit.

10. RWBR Submittal Requirements

- a. For all types of Restricted Access RWBR, the permittee shall submit and receive approval of a Standard Operations Procedure or modify an existing Standard Operations Procedure as detailed in the most recent version of the Department's "Technical Manual for Reclaimed Water for Beneficial Reuse" (Reuse Technical Manual) prior to the commencement of any type of RWBR activity. A copy of the approved Standard Operations Procedure shall be maintained onsite. Specific requirements for the Standard Operations Procedure are identified in the Reuse Technical Manual. This requirement does not apply to sanitary sewer jetting and STP washdown water.
- b. The permittee shall submit a copy of the Reuse Supplier and User Agreement with each request for authorization to distribute RWBR in which the user is a different entity than the supplier. Specific requirements for the Reuse Supplier and User Agreement are identified in the Reuse Technical Manual.
- c. For Public Access RWBR on Edible Crops, the permittee shall submit an annual inventory of edible crop irrigation with the Beneficial Reuse Annual Report. Specific requirements for the annual inventory are identified in the Reuse Technical Manual.
- d. Submit a Beneficial Reuse Annual Report: by February 1 of each year beginning from the effective date of the permit (EDP).
- e. The permittee shall submit and receive approval of an Engineering Report in support of RWBR authorization requests for new or expanded RWBR projects as detailed in the most recent version of the Department's "Technical Manual for Reclaimed Water for Beneficial Reuse" (Reuse Technical Manual) prior to the commencement of any type of RWBR activity. A copy of the approved Engineering Report shall be maintained onsite. Specific requirements for the Engineering Report are identified in the Reuse Technical Manual.
- f. All submittals shall be mailed or delivered to: New Jersey Department of Environmental Protection, Division of Water Quality, Mail Code 401-02B, Bureau of Surface Water & Pretreatment Permitting, P.O. Box 420, Trenton, New Jersey 08625-0420.

11. RWBR Operational Requirements

- a. Effluent that does not meet the requirements for RWBR established in Part III, Part IV and the operational requirements specified in the facility's approved Operations Protocol or Standard Operations Procedure, as applicable, shall not be diverted for RWBR.
- b. The land application of RWBR shall not produce surface runoff or ponding.
- c. All setback distances shall be consistent with the distances outlined in the Reuse Technical Manual.
- d. Land application sites shall not be frozen or saturated when applying RWBR.
- e. A daily log noting the volume of RWBR distributed to each approved application site shall be maintained on-site by the permittee and made available to the Department upon request. The volume of RWBR to be distributed shall be determined through the use of a totalizing flow meter, or other means of accurate flow measurement.

- f. Any vehicle used to transport and/or distribute RWBR shall be appropriately marked. The vehicle shall not be used to transport water or other fluid that does not meet all limitations and requirements as specified in this permit for water diverted for RWBR, unless the tank has been emptied and adequately cleaned prior to the addition of the RWBR.
- g. The permittee shall post Access Control and Advisory Signs in accordance with the requirements of the Reuse Technical Manual.
- h. There shall be no cross-connections to potable water systems.
- i. All RWBR piping, pipelines, valves, and outlets shall be appropriately color coded, tagged or labeled to warn the public and employees that the water is not intended for drinking. Worker contact with RWBR shall be minimized.
- j. The issuance of this permit for the use of RWBR shall not be considered as a waiver of any applicable federal, state or local rule, regulation or ordinance.

12. Toxicity Testing Requirements - Chronic Whole Effluent Toxicity

- a. The permittee shall conduct toxicity tests on its wastewater discharge in accordance with the provisions in this section. Such testing will determine if appropriately selected effluent concentrations adversely affect the test species.
- b. Chronic toxicity tests shall be conducted using the test species and method identified in Part III of this permit.
- c. Any test that does not meet the specifications contained in the Department's "Chronic Toxicity Testing Specifications for Use in the NJPDES Program" document must be repeated within 30 days of the completion of the initial test. The repeat test shall not replace subsequent testing required in Part III.
- d. The permittee shall collect and analyze the concentration of ammonia-N in the effluent on the day a sample is collected for WET testing. This result is to be reported on the Biomonitoring Report Form.
- e. IC25 - Inhibition Concentration - Concentration of effluent which has an inhibitory effect on 25% of the test organisms for the monitored effect, as compared to the control (expressed as percent effluent).
- f. Test results shall be expressed as the IC25 for each test endpoint. Where a chronic toxicity testing endpoint yields IC25's from more than one test endpoint, the most sensitive endpoint will be used to evaluate effluent toxicity.
- g. The permittee shall resubmit a Chronic Methodology Questionnaire within 60 days of any change in laboratory.
- h. Submit a chronic whole effluent toxicity test report within twenty-five days after the end of every annual monitoring period beginning from the effective date of the permit (EDP).
- i. Test reports shall be submitted to:
 - i. biomonitoring@dep.nj.gov

13. Toxicity Reduction Implementation Requirements (TRIR)

- a. The permittee shall initiate a tiered toxicity investigation if two out of six consecutive WET tests demonstrate that the effluent does not comply or will not comply with the toxicity limit or action level specified in Part III of this permit.
 - i. If the exceedence of the toxicity limit or action level is directly caused by a documented facility upset, or other unusual event which has been identified and appropriately remedied by the permittee, the toxicity test data collected during the event may be eliminated when determining the need for initiating a TRIR upon written Department approval.
- b. The permittee shall begin toxicity characterization within 30 days of the end of the monitoring period when the second toxicity test exceeds the toxicity limits or action levels in Part III. The monitoring frequency for toxicity testing shall be increased to monthly. Up to 12 additional tests may be required.
 - i. The permittee may return to the toxicity testing frequency specified in Part III if four consecutive toxicity tests conducted during the Toxicity Characterization do not exceed the toxicity limit or action level.
 - ii. If two out of any six consecutive, acceptable tests again exceed the toxicity limit or action level in Part III, the permittee shall repeat the Toxicity Reduction Implementation Requirements.
- c. The permittee shall initiate a preliminary toxicity identification (PTI) upon the third exceedence of the toxicity limit or action level specified in Part III during toxicity characterization.
 - i. The permittee may return to the monitoring frequency specified in PART III while conducting the PTI. If more frequent WET testing is performed during the PTI, the permittee shall submit all biomonitoring reports to the DEP and report the results for the most sensitive species on the DMR.
 - ii. As appropriate, the PTI shall include:
 - (1) treatment plant performance evaluation,
 - (2) pretreatment program information,
 - (3) evaluation of ammonia and chlorine produced oxidants levels and their effect on the toxicity of the discharge,
 - (4) evaluation of chemical use and processes at the facility, and
 - (5) an evaluation of incidental facility procedures such as floor washing, and chemical spill disposal which may contribute to effluent toxicity.
 - iii. If the permittee demonstrates that the cause of toxicity is the chlorine added for disinfection or the ammonia concentration in the effluent and the chlorine and/or ammonia concentrations are below the established water quality based effluent limitation for chlorine and/or ammonia, the permittee shall identify the procedures to be used in future toxicity tests to account for chlorine and/or ammonia toxicity in their preliminary toxicity identification report.
 - iv. The permittee shall submit a Preliminary Toxicity Identification Notification within 15 months of triggering TRIR. This notification shall include a determination that the permittee intends to demonstrate compliance OR plans to initiate a CTI.
- d. The permittee must demonstrate compliance with the WET limitation or action level in four consecutive WET tests to satisfy the requirements of the Toxicity Reduction Investigation Requirements. After successful completion, the permittee may return to the WET monitoring frequency specified in PART III.

- e. The permittee shall initiate a Comprehensive Toxicity Investigation (CTI) if the PTI does not identify the cause of toxicity and a demonstration of consistent compliance with the toxicity limit or action level in Part III can not be made.
 - i. The permittee shall develop a project study plan identifying the party or parties responsible for conducting the comprehensive evaluation, establish a schedule for completing the study, and a description of the technical approach to be utilized.
 - ii. If the permittee determines that the PTI has failed to demonstrate consistent compliance with the toxicity limit or action level in Part III, a Comprehensive Toxicity Investigation Workplan must be prepared and submitted within 90 days.
 - iii. The permittee shall summarize the data collected and the actions taken in CTI Quarterly Reports. The reports shall be submitted within 30 calendar days after the end of each quarter.
 - iv. The permittee shall submit a Final CTI Report 90 calendar days after the last quarterly report. The final CTI report shall include the corrective actions identified to reduce toxicity and a schedule for implementing these corrective actions.
- f. Upon receipt of written approval from the Department of the corrective action schedule, the permittee shall implement those corrective actions consistent with that schedule.
 - i. The permittee shall satisfy the requirements of the Toxicity Reduction Implementation Requirements and return to the original toxicity monitoring frequency after corrective actions are implemented and the permittee demonstrates consistent compliance with the toxicity limit or action level in Part III in four consecutive toxicity tests.
 - ii. If the implemented corrective measures do not result in consistent compliance with the toxicity limit or action level in Part III, the permittee shall submit a plan for resuming the CTI.
 - iii. Documents regarding Toxicity Investigations shall be sent to the following:
New Jersey Department of Environmental Protection
Mail Code 401-02B
Division of Water Quality
Bureau of Surface Water & Pretreatment Permitting
401 East State Street
P.O. Box 420
Trenton, New Jersey 08625-0420.

E. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

1. Requirement to Identify and Locate Industrial Users

- a. The Permittee shall identify all indirect users which meet the significant indirect user definition in N.J.A.C. 7:14A-1.2 or have reasonable potential to:
 - i. interfere with attainment of the effluent limitations contained in the permittee's NJPDES permit
 - ii. pass through the treatment works and impair the water quality of the receiving stream; or
 - iii. affect sludge quality so as to interfere with the use or management of the municipal sludge

2. Notification Requirements

- a. The permittee shall provide adequate notice to the NJDEP, Division of Water Quality, Bureau of Pretreatment and Residuals, of the name, address, telephone number and facility contact of all:
 - i. new SIUs at the time the proposed user applies to the permittee for connection to the permittee's system,
 - ii. any substantial change or proposed change in the volume or character of pollutants being introduced into the POTW by existing SIUs, or
 - iii. any substantial change or proposed change in the volume or character of pollutants being introduced into the POTW by a user that causes the user to become an SIU.
- b. For purposes of this subsection, adequate notice shall include information on the quality and quantity of effluent introduced into the POTW and any anticipated impact of such change on the quantity or quality of effluent to be discharged from the POTW.

3. Requirement to Develop Local Limits

- a. If necessary to ensure compliance with the requirements in paragraph i following, the permittee shall perform a headworks analysis in order to develop local limits or demonstrate that local limits are not necessary. The headworks analysis and if necessary, development of local limits, shall:
 - i. be conducted in accordance with the Local Limits Development Guidance (July 2004, USEPA Office of Wastewater Management), including all supplements and amendments thereto, including: identifying the sources and pollutants which should be limited in order to address environmental protection criteria of paragraph ii.; characterizing industrial discharges; reviewing applicable environmental protection criteria and pollutant effects data; monitoring of IU discharges, POTW collection system and treatment plant; and calculating local limits for the identified pollutants of concern;
 - ii. ensure compliance with the following minimum environmental protection criteria: the numerical effluent limitations in the Part III; The local agency's process inhibition and upset criteria; the local agency's worker health and safety protection criteria; the sludge quality criteria for a chosen method(s) of sludge management; and the limitations in the local agency's Air Pollution Control permit, where applicable.

4. Submittal Requirements

- a. The permittee shall submit updates to its Local Sewer Use Ordinance within 30 days of modification.
- b. The permittee shall prepare a Pretreatment Program Report which consists of a listing of all indirect users which meet the significant indirect user definition in N.J.A.C. 7:14A-1.2. The permittee may also include potential significant indirect users or if the permittee cannot make determination if an indirect user is a significant indirect user. The report shall include the name, address, and type of business for each facility. The report shall be on the form provided by the Department. The form is available on the Department's web site at <http://www.nj.gov/dep/dwq/pdf/non-dla-pt-annual-report-form.pdf>
- c. Submit the Annual Pretreatment Program Report annually beginning on EDP + 1 year.
- d. The reports shall be submitted to: NJDEP, Mail Code - 401-02B, Bureau of Surface Water & Pretreatment Permitting, 401 East State Street, P. O. Box 420, Trenton, NJ. 08625-0420.

F. CONDITIONS FOR MODIFICATION

1. Notification requirements

- a. The permittee may request a minor modification for a reduction in monitoring frequency for a non-limited parameter when four consecutive test results of "not detected" have occurred using a sufficiently sensitive quantification level as defined at 40 CFR 136, 40 CFR 122.21(e)(3), and 40 CFR 122.44(i)(1)(iv).

2. Causes for modification

- a. The Department may modify or revoke and reissue any permit to incorporate 1) any applicable effluent standard or any effluent limitation, including any effluent standards or effluent limitations to control the discharge of toxic pollutants or pollutant parameters such as acute or chronic whole effluent toxicity and chemical specific toxic parameters, 2) toxicity reduction requirements, or 3) the implementation of a TMDL or watershed management plan adopted in accordance with N.J.A.C. 7:15-7.
- b. The permittee may request a minor modification to eliminate the monitoring requirements associated with a discharge authorized by this permit when the discharge ceases due to changes at the facility.

PINE BROOK STP, Manalapan

Permit No.NJ0023728
DSW190001 Surface Water Renewal Permit Action

APPENDIX A:

**CHRONIC TOXICITY TESTING SPECIFICATIONS
FOR USE IN THE NJPDES PERMIT PROGRAM**

Version 3.0

May 2017

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Notice: Mention of trade names or commercial products do not constitute endorsement or recommendation for use.

I. AUTHORITY AND PURPOSE

These methods specifications for the conduct of whole effluent chronic toxicity testing are established under the authority of the NJPDES permitting program, N.J.A.C. 7:14A-6.5(a)2 and 40 CFR 136, for discharges to waters of the State. The methods referenced herein are included by reference in 40 CFR 136, Table 1.A. and, therefore, constitute approved methods for chronic toxicity testing. The information contained herein serves to clarify testing requirements and outline and implement the interlaboratory Standard Reference Toxicant Program until specific chronic requirements are incorporated into the laboratory certification regulations under N.J.A.C. 7:18. As such these methods are intended to be used to determine compliance with discharge permits issued under the authority of the NJPDES permit program. Tests are to be conducted in accordance with the general conditions and method specifications (test organism specific) contained in this document. All other conditions and specifications can be found in 40 CFR 136 and USEPA methodologies.

Until a subchapter on chronic toxicity testing within the regulations governing the certification of laboratories and environmental measurements (N.J.A.C. 7:18) becomes effective, tests shall be conducted in conformance with the methodologies as designated herein and contained in 40 CFR 136. The laboratory performing the testing shall possess certification for the applicable chronic methodologies incorporated by reference through the laboratory certification program established under N.J.A.C. 7:18, as required by N.J.A.C. 7:9B-1.5(c)5.

These methods are incorporated into discharge permits as enforceable permit conditions. Each discharge permit will specify in Parts III&IV of the permit, the test species specific methods from this document that will be required under the terms of the discharge permit. Although the test species specific methods for each permit are determined on a case-by-case basis, the purpose of this methods document is to assure consistency among dischargers and to provide certified laboratories with information on the universe of tests to be utilized so that they can make the necessary preparations, including completing the required Standard Reference Toxicant testing. Please note that these methodologies are required for compliance testing only. Facilities and/or laboratories conducting testing under the requirements of a Toxicity Identification Evaluation or for informational purposes are not bound by these methods.

This document constitutes the fifth version of the NJDEP's interim chronic methodologies. This version contains no significant changes to the test methods themselves.

II. GENERAL CONDITIONS

A. LABORATORY SAFETY, GLASSWARE, ETC.

All safety procedures, glassware cleaning procedures, etc., shall be in conformance with 40 CFR 136 and USEPA's "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms" and N.J.A.C. 7:18.

B. TEST CONCENTRATIONS / REPLICATES

All testing is to be performed with a minimum of five effluent concentrations plus a dilution water control. A second reference water control is optional when a dilution water other than culture water is used. The use of both a 0.5 or 0.75 dilution factor is acceptable for the selection of test concentrations. The Department recommends the use of the 5 standard dilutions plus a dilution water control to cover the entire range of effluent test concentrations e.g. 0%, 6.25%, 12.5%, 25%, 50%, 100%.

The number of replicates used in the test must, at a minimum, satisfy the specifications of the applicable methods contained herein. Increased data sensitivity can be obtained by increasing the number of replicates equally among test concentrations and thus an increased number of replicates is acceptable. Further, the use of nonparametric statistical analysis requires a minimum of four replicates per test concentration. If the data for any particular test is not conducive to parametric analyses and if less than four replicates were included, the test may not be considered acceptable for compliance purposes.

The use of single concentration tests consisting of the permit limitation as a concentration and a control is not permitted for compliance purposes, but may be used by a permittee in the conduct of a Toxicity Investigation Evaluation (TIE) or for information gathering purposes. Such a test would be considered a "pass" if there was no significant difference in test results, using hypothesis testing methods.

C. DILUTION WATER

1. Marine and Estuarine Waters

A high quality natural water, such as the Manasquan River Inlet is strongly recommended as the dilution water source for chronic toxicity testing with marine and estuarine organisms. The use of the receiving water as the dilution water source is not required. Saline waters prepared with hypersaline brine and deionized water may also be used as dilution water. Hypersaline brines shall be prepared from a high quality natural seawater and shall not exceed a concentration of 100 ppt. The type of dilution water for a permittee may not be changed without the prior approval of the Department.

The standard test salinity shall be 25 ppt. Since most effluents are freshwater based, in most cases it will be necessary to adjust the salinity of the test concentrations to the standard test salinity.

2. Fresh Waters

A high quality natural water, such as Round Valley Reservoir (if access is allowed) or Lake Hopatcong, is recommended as the dilution water source for chronic toxicity testing with freshwater organisms. It is not required to perform the toxicity testing with the receiving water as dilution water. Tests performed with reconstituted water or up to 20% Diluted Mineral Water (DMW) as dilution water is acceptable. For testing with *Ceriodaphnia dubia*, the addition of 5 µg/l selenium (2 µg/l selenium with natural water) and 1 µg/l vitamin B12 is recommended (Keating and Dagbusan, 1984; Keating, 1985 and 1988). The source of a dilution water for a permittee may not be changed without the prior approval of the Department through the completion of a Whole

Effluent toxicity testing methodology questionnaire. Reconstituted water and DMW should be prepared with Millipore Super Q^R or equivalent, meet the requirements of N.J.A.C. 7:18-6 and should be aerated a minimum of 24 hrs prior to use, but not supersaturated.

D. EFFLUENT SAMPLE COLLECTION

Effluent samples shall be representative of the discharge being regulated. For each discharge serial number (DSN), the effluent sampling location shall be the same as that specified in the NJPDES permit for other sampling parameters unless an alternate sampling point is specified in the NJPDES discharge permit. For continuous discharges, effluent sampling shall consist of 24 hour composite samples consisting either of equal volumes taken once every hour or of a flow-proportionate composite sample, unless otherwise approved by the Department. Unless otherwise specified, three samples shall be collected as specified above, preferably one every other day. The first sample should be used for test initiation and the first renewal. The second sample for the next two renewals. The third sample should be used for the final three renewals. For the *Selenastrum* test, a single sample shall be collected not more than 24 hours prior to test initiation. In no case, shall more than 36 hours' elapse between collection and first use of the sample. It is acceptable to collect samples more frequently for chronic WET testing and if samples are collected daily for acute toxicity testing conducted concurrently, available samples may be used to renew the test solutions as appropriate.

For all other types of discharges, effluent sampling shall be conducted according to specifications contained within the discharge permit, methodology questionnaire, or as otherwise specified by the Department. The use of grab samples or other special sampling procedures may be approved by the Department based on time of occurrence and duration of intermittent discharge events.

If a municipal discharger has concerns that the concentrations of ammonia and/or chlorine in an effluent are adequate to cause violations of the permit limit for chronic toxicity testing, the permittee should conduct analyses, as specified in USEPA's toxicity investigation methods documents, to illustrate the relationship between chronic effluent toxicity and chlorine and/or ammonia as applicable. This data may then be submitted to the Department as justification for a request to use modified test procedures, which account for ammonia and/or chlorine toxicity, in future chronic toxicity tests. The Department may, where adequate justification exists, permit the adjustment of these pollutants in the effluent sample if discharge limits for these pollutants are contained in the NJPDES permit and those permit limitations are adequate for the protection of water quality. Any proposed modified test procedures to adjust effluent chlorine and/or ammonia shall be approved by the Department prior to use of those test procedures for any compliance testing.

Except for filtration through a 2 mm or larger screen or an adjustment to the standard test salinity, no other adjustments to the effluent sample shall be made without prior written approval by the Department. When a laboratory adjusts a freshwater effluent salinity and the pH of the test concentration changes more than 0.5 pH units from the initial pH, the laboratory shall readjust the pH of the test concentration to within 0.5 pH units of the original test concentration. Aeration of samples prior to test start shall be minimized where possible and samples shall not be aerated where adequate saturation exists to maintain dissolved oxygen.

E. PHYSICAL CHEMICAL MEASUREMENTS

At a minimum, the physical chemical measurements shall be as follows unless more stringent criteria is required by the method:

- pH and dissolved oxygen shall be measured at the beginning and end of each 24 hour exposure period, in at least one chamber, of each test concentration and the control. In order to ensure that measurements for these parameters are representative of the test concentrations during the test, measurements for these parameters should be taken in an additional replicate chamber for such concentrations which contains no test organisms, but is subject to the same test conditions.

- Temperature shall either be monitored continuously, measured daily in at least two locations in the environmental control system, or measured at the beginning and end of each 24 hr exposure period in at least one replicate for each treatment.
- Salinity shall be measured in all salt water tests at the beginning and end of each 24 hour exposure period, in at least one replicate for each treatment.
- For all freshwater tests, alkalinity, hardness and conductivity shall be measured in each new sample (100% effluent) and control.
- When natural salt water is used; nitrite, nitrate, and ammonia shall be measured in the control before each renewal in the mysid test only.
- For samples of discharges where concentrations of ammonia and/or chlorine are known or are suspected to be sufficient to cause toxicity, it is recommended that the concentrations of these pollutants be determined and submitted with the standardized report form. The laboratory is advised to consult with the permittee to determine if these parameters should be measured in the effluent. Where such measurements are deemed appropriate, measurements shall be conducted at the beginning of each 24 hour exposure period. Also, since a rise in the test pH can affect the toxicity of ammonia in the effluent, analysis of ammonia during the test may be appropriate if a rise in pH is accompanied by a significant increase in mortality.

F. STATISTICS

Special attention should be given to the omission and inclusion of a given replicate in the analysis of mysid fecundity data (USEPA 1994, p. 275) and *Ceriodaphnia* reproduction data (USEPA 1994, page 174).

Determination of acceptability criteria and average individual dry weight for the growth endpoints must follow the specifications in the applicable documents (e.g., p.84 for saltwater methods document.)

Use of nonparametric statistical analyses requires a minimum of four replicates per test concentration. If the data for any particular test are not conducive to parametric analyses and if less than four replicates were included, the test may not be acceptable to the Department.

For point estimate techniques, statistical analysis must follow the protocol contained in the approved testing method. The linear interpolation estimate IC_p values and not the bootstrap mean IC_p, shall be reported for permit compliance purposes. The IC_p value reported on the Discharge Monitoring Report shall be rounded off as specified in the Department's "NJPDES Monitoring Report Form Reference Manual", updated December 2007, and available on the web at http://www.state.nj.us/dep/dwq/pdf/MRF_Manual.pdf for further information.

If the result reported by the IC_p method is greater than 100% effluent, the test result is reported as ">100%"

If separate IC₂₅'s can be calculated from multiple test endpoints, for example a reproductive and/or growth endpoint and a survival endpoint, the lowest IC₂₅ value expressed in units of "% effluent" will be used to determine permit compliance and should, therefore, be reported as the IC₂₅ value for the test. If the IC₂₅ value for growth and/or reproduction is not lower than that for survival, the IC₂₅ value reported for the test shall be as survival. For saltwater tests, where additional controls are used in a test (i.e. brine and/or artificial sea salt control), a T-test shall be used to determine if there is a significant difference between the original test control and the additional controls. If there is a significant difference between any of the controls, the test may be deemed unacceptable and if so, will not be used for permit compliance.

III. TEST ACCEPTABILITY CRITERIA

Any test that does not meet the test acceptability criteria of the chronic toxicity method will not be used by the Department for any purpose and must be repeated as soon as practicable, with freshly collected samples.

1. Tests must be performed by a laboratory approved for the conduct of chronic toxicity tests and certified for chronic toxicity testing under N.J.A.C. 7:18.
2. Test results may be rejected due to inappropriate sampling, including the use of less than three effluent samples in a test and/or use of procedures not specified in a permit or methodology questionnaire, use of frozen samples, not refrigerating samples upon collection, or unapproved pretreatment of an effluent sample.
3. Controls shall meet, at a minimum, the applicable performance criteria specified in the Table 2.0 and in the individual method specifications contained herein.
4. Acceptable and applicable Standard Reference Toxicant Data must be available for the test.
5. No unapproved deviations from the applicable test methodology may be present.
6. When using hypothesis testing techniques, a deviation from the dose response as explained in the statistical portion of this document shall not be present in the data.
7. If more stringent criteria are required within the chronic toxicity test method or rule, the more stringent criteria must be met.

Table 2.0:

CONTROL PERFORMANCE

TEST ORGANISM	MINIMUM SURVIVAL	MINIMUM WEIGHT GAIN	MINIMUM FECUNDITY/ REPRODUCTION
<i>Pimephales promelas</i>	80%	0.25 mg avg	N/A
<i>Ceriodaphnia dubia</i>	80%	N/A	Average of ≥ 15 young per surviving female
<i>Selenastrum capricornutum</i>	Density $\geq 2 \times 10^5$ cells/ml	N/A	Variability in controls not to exceed 20%.
<i>Cyprinodon variegatus</i>	80%	0.60 mg (unpreserved) avg 0.50 mg (preserved) avg	N/A
<i>Menidia beryllina</i>	80%	0.50 mg (unpreserved) avg 0.43 mg (preserved) avg	N/A
<i>Mysidopsis bahia</i>	80%	0.20 mg per mysid avg	egg production by 50% of control females if fecundity is used as an endpoint.

THE DETERMINATION OF A TEST AS UNACCEPTABLE DOES NOT RELIEVE THE FACILITY FROM MONITORING FOR THAT MONITORING PERIOD

IV. STANDARD REFERENCE TOXICANT TESTING

All chronic testing shall be accompanied by testing with a Standard Reference Toxicant (SRT) as a part of each laboratory's internal quality control program. Such a testing program must be consistent with the quality assurance/quality control protocols described in the USEPA chronic testing manuals. Laboratories may utilize the reference toxicant of their choice and toxicants such as cadmium chloride, potassium chloride, sodium dodecyl sulfate and copper sulfate are all acceptable. However, Potassium chloride has been chosen by several laboratories and is recommended by the Department. The concentration of the reference toxicant shall be verified by chemical analysis in the low and high test concentrations once each year or every 12 tests, whichever is less. It is not necessary to run SRT tests, for all species using the same SRT.

A. INITIAL STANDARD REFERENCE TOXICANT (SRT) TESTING REQUIREMENTS

At a minimum, this testing shall include an initial series of at least five SRT tests for each test species method. Acceptable SRT testing for chronic toxicity shall be performed utilizing the short term chronic toxicity test methods as specified herein. Reference toxicant tests utilizing acute toxicity testing methods, or any method other than those contained in this document are not acceptable. The laboratory should forward results of the initial SRT testing, including control charts, the name of the reference toxicant utilized, the supplier and appropriate chemical analysis of the toxicant to the Department's laboratory certification program prior to obtaining certification for chronic toxicity testing. Certification for the applicable chronic toxicity method must be obtained prior to the conduct of any chronic toxicity testing for compliance purposes.

B. SUBSEQUENT SRT TESTING REQUIREMENTS

After receiving the initial approval from the Department to conduct chronic toxicity tests for compliance purposes, subsequent SRT testing shall be conducted as follows:

1. Where organisms used in testing are cultured at the testing laboratory, SRT testing must be conducted at least once per month for each species/method.
2. Where the laboratory purchases organisms for the conduct of chronic toxicity testing for the test organism in question, the testing laboratory must conduct a concurrent SRT per lot of organisms, unless the supplier provides at least the most recent five monthly SRT's using the same toxicant and control conditions. SRT data provided by the supplier for each lot of organisms purchased is acceptable as long as the SRT test result falls within the control limits of the control chart established by the supplier for that organism. The laboratory using purchased organisms is responsible for the results of any compliance tests they perform.
3. A testing laboratory purchasing organisms from a supplier laboratory must still perform SRT testing on a monthly basis at a minimum, for each species they test with, in order to adequately document their own interlaboratory precision.
4. If a testing laboratory purchasing organisms elects not to use the SRT data from a "supplier laboratory" or such data is unavailable or where organisms are purchased from another organism supplier, the testing laboratory must conduct SRT testing on each lot of organisms purchased.
5. If a testing laboratory conducts testing for a species/method less frequently than monthly, then an SRT shall be run concurrent with the toxicity test.

NOTE: Based on these requirements, SRT data are considered applicable to a compliance test when the SRT test results are acceptable and the SRT test is conducted within 30 days of the compliance test, for the test species and SRT in question. Therefore, it is not necessary for an approved laboratory to run an SRT test every month if the laboratory is not conducting compliance tests for a particular species.

C. CHANGING OF AN ESTABLISHED REFERENCE TOXICANT

The SRT used for any species by a laboratory may be changed at any time provided that the following conditions have been satisfied:

1. A series of at least three reference toxicant tests are conducted with the new reference toxicant and the results of those tests are identified as satisfactory, in writing, by the Department.
2. Laboratories must continue using the already approved SRT in their ongoing QA/QC program, until such time as the letter referenced above, is received by the laboratory.

D. CONTROL CHARTS

Control charts shall be established from SRT test results in accordance with the procedures outlined in the USEPA methods documents. Control charts shall be constructed using IC25's using the following methods:

1. The upper and lower control limits shall be calculated by determining +/- two standard deviations above and below the mean.
2. SRT test results which exhibit an IC25 that is greater than the highest concentration tested or less than the lowest concentration tested (i.e. a definitive endpoint cannot be determined), shall not be used to establish control charts.
3. SRT tests which do not meet the acceptability criteria for a specific species shall not be used to establish control charts.
4. All values used in the control charts should be as nominal concentrations. However, the control charts shall be accompanied by a chart tabulating the test results as measured concentrations.
5. An outlier (i.e. values which fall outside the upper and lower control limits) should be included on the control chart unless it is determined that the outlier was caused by factors not directly related to the test organisms (e.g., test concentration preparation) as the source of variability would not be directly applicable to effluent tests. In such case, the result and explanation shall be reported to the Department within 30 days of the completion of the SRT test.

The control chart established for the initial series of SRT data submitted will be used by the laboratory and the Department to determine outliers from SRT test results reported in the "NJPDES Biomonitoring Report Form - Chronic Toxicity Test" submitted by the permittees for the test species. These initial control limits will remain unchanged until twenty SRT tests have been completed by the laboratory.

The following procedures shall be used for continually updating control charts after twenty acceptable SRT tests have been completed:

1. Once a laboratory has completed twenty acceptable SRT tests for a test species, the upper and lower control limits shall be recalculated with those twenty values.
2. For each successive SRT test conducted after these first twenty tests, a moving average shall be calculated and the control limits reevaluated using the last twenty consecutive test results.
3. The upper and lower control limits shall be reported on the "NJPDES Biomonitoring Report Form - Chronic Toxicity Tests" along with the SRT test result.

E. UNACCEPTABLE SRT TEST RESULTS

If a laboratory produces any SRT test results which are outside the established upper and lower control limits for a test species at a frequency greater than one test in any twenty tests, the laboratory shall investigate sources of variability, take corrective actions to reduce identified sources of variability, and perform an additional SRT during the same month. The Department may not accept or may require repeat testing for any toxicity testing that may have been affected by such an occurrence.

If a laboratory produces two consecutive SRT test results or three out of any twenty test results which are outside the established upper and lower limits for a specific test species, the laboratory shall cease to conduct chronic toxicity tests for compliance purposes for that test species until the reason(s) for the outliers have been resolved. Approval to resume testing may be contingent upon the laboratory producing SRT test results within the established upper and lower control limits for that test species in two consecutive SRT tests. If one or both of those test results again fall outside the established control levels, the laboratory is unapproved for that test species until five consecutive test results within the established upper and lower control limits are submitted and approved by the Department.

F. ANNUAL SUBMITTALS

The Department may request, at any time, any information which is essential in the evaluation of SRT results and/or compliance data.

V. TEST CANCELLATION / RESCHEDULING EVENTS

A lab may become aware of QA problems during or immediately following a test that will prevent data from being submitted or a lab may be unable to complete a tests due to sample collection or shipping problems. If for any reason a chronic toxicity test is initiated and then prematurely ended by the laboratory the laboratory shall submit the form entitled "Chronic Whole Effluent Toxicity Testing Test Cancellation / Rescheduling Event Form" contained herein. This form shall be used to detail the reason for prematurely ending the test. This completed form and any applicable raw data sheets shall be submitted to the biomonitoring program at the address below within 30 days of the cessation of the test.

Tests are considered to be initiated once test organisms have been added to all test chambers.

Submission of this form does not relieve the facility from monitoring for that monitoring period.

VI. REPORTING

The report form entitled "NJPDES Biomonitoring Report Form - Chronic Toxicity Tests" should be used to report the results of all NJPDES chronic compliance biomonitoring tests. Laboratory facsimiles are acceptable but must contain all information included on any recent revisions of the form by the Department. Statistical printouts and raw data sheets (including chain of custody documents) for all endpoints analyzed shall be included with the report submitted to the Department. All chronic toxicity test report forms shall be submitted to the following email addresses as applicable:

biomonitoring@dep.nj.gov

Toxicity@drbc.gov

In addition, the results of all chronic toxicity tests conducted must be reported on the DMR form under the appropriate parameter code in the monitoring period in which the test was conducted.

VII. METHOD SPECIFICATIONS

The following method specifications shall be followed as specified in the NJPDES permit. Any changes to these methods will not be considered acceptable unless they are approved in writing by the Department, prior to their use.

- A. Fathead Minnow (*Pimephales promelas*), Larval Survival and Growth Test, method 1000.0
- B. *Ceriodaphnia dubia*, Survival and Reproduction Test, method 1002.0
- C. Algal, (*Selenastrum capricornutum*), Growth Test, method 1003.0
- D. Sheepshead Minnow (*Cyprinodon variegatus*), Larval Survival and Growth Test, method 1005.0
- E. Inland Silverside (*Menidia beryllina*), Larval Survival and Growth Test, method 1006.0
- F. *Mysidopsis bahia*, Survival, Growth, and Fecundity Test, method 1007.0

VIII. REFERENCES

1. NJPDES Monitoring Report Form Reference Manual October 2007
http://www.state.nj.us/dep/dwq/pdf/MRF_Manual.pdf

2. USEPA. 2002. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA-821-R-02-014. October 2002. Third Edition.
3. USEPA. 2002. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. EPA-821-R-02-013. October 2002. Fourth Edition.

**CHRONIC WHOLE EFFLUENT TOXICITY TESTING
TEST CANCELLATION / RESCHEDULING EVENT FORM**

**THIS FORM IS TO BE COMPLETED AND SUBMITTED TO THE DEPARTMENT DIRECTLY BY THE
LABORATORY CONDUCTING CHRONIC TOXICITY TESTS WHENEVER A CHRONIC TOXICITY TEST
IS PREMATURELY ENDED FOR ANY REASON**

NJPDES No.: _____

FACILITY NAME: _____

LOCATION: _____

CONTACT: _____ PHONE: _____

CANCELLATION EVENT:

LABORATORY NAME / NUMBER: _____

CONTACT: _____

TEST START DATE: ____/____/____

TEST END DATE: ____/____/____

REASON FOR CANCELLATION: _____

When is retest scheduled to be performed?

EFFLUENT SAMPLING:

SAMPLING POINT / DESCRIPTION OF SAMPLING SITE: _____

SAMPLING INITIATED: DATE: ____/____/____ TIME: _____

SAMPLING ENDED: DATE: ____/____/____ TIME: _____

NUMBER OF EFFLUENT SAMPLES COLLECTED: _____

SAMPLE TYPE (GRAB/COMPOSITE): _____

RECEIVED IN LAB BY/FROM: _____

METHOD OF SHIPMENT: _____

(ALL APPLICABLE RAW DATA SHEETS MUST BE ATTACHED)

c: Permittees authorized agent.

Masterfile #: 12911

PI #: 47082

RWBR Approval Status List

The permittee is only authorized to utilize RWBR for the specific category, type and location that has been approved in the table below.

RWBR Category	Specific RWBR Type	Location	Status
PA	Spray Irrigation (Golf Course)	None	Not Approved
PA	Spray Irrigation (Athletic Fields, Playgrounds)	None	Not Approved
PA	Spray Irrigation (Residential Lawns)	None	Not Approved
PA	Vehicle Washing	None	Not Approved
PA	Hydroseeding/Fertilizing	None	Not Approved
PA	Decorative Fountains	None	Not Approved
PA	Toilet Flushing	None	Not Approved
RA-LA	Sod Irrigation	None	Not Approved
RA-LA	Spray Irrigation within a fenced perimeter or otherwise restricted area	None	Not Approved
RA-LA	Spray Irrigation within a fenced perimeter or otherwise restricted area (Without NH3 + NO3)	None	Not Approved
RA-LA	Spray Irrigation (not fenced or restricted area)	None	Not Approved
RA-CM	Street Sweeping	None	Not Approved
RA-CM	Dust Control	None	Not Approved
RA-CM	Fire Protection	None	Not Approved
RA-CM	Vehicle Washing (at STP or DPW)	None	Not Approved
RA-CM	Composting	None	Not Approved
RA-IS	Sanitary Sewer Jetting	MUA Sewer Service Area	Approved
RA-IS	Non-Contact Cooling Water	None	Not Approved
RA-IS	Boiler Makeup Water	None	Not Approved
RA-IS	Road Milling	None	Not Approved
RA-IS	Hydrostatic Testing	None	Not Approved
RA-IS	Parts Washing	None	Not Approved
RA-IS	STP Washdown	Western Monmouth MUA	Approved

Categories:

PA Public Access
RA-LA Restricted Access-Land Application and Non-Edible Crops
RA-CM Restricted Access--Construction and Maintenance Operations
RA-IS Restricted Access--Industrial Systems

Abbreviations:

NH3 - Ammonia
NO3 - Nitrate
STP - Sewage Treatment Plant
DPW - Dept. of Public Works

Any facility that has received an RWBR authorization is required to submit an Annual Reuse Report. The following information, at a minimum, shall be included in the report, due on February 1st of each year.

- (1) The total wastewater reused (R) by the facility in the previous calendar year. If no wastewater was reused in the previous calendar year, report R as zero and skip to (6) below;
R = _____ gallons
- (2) The total wastewater discharged (D) by the facility in the previous calendar year;
D = _____ gallons
- (3) The percent of wastewater reused (%R) by the facility in the previous calendar year, calculated as follows:

$$\%R = R/(R+D), \text{ expressed as a percent;}$$
%R = _____ percent
- (4) The total wastewater that was reused for **each reuse type** in the previous calendar year. This information should be provided in the chart format utilized in the RWBR Usage Table below;

RWBR Usage Table

RWBR Category	Specific RWBR Type	Location	Flow (gallons)

Attach additional pages as necessary.

- (5) An update to the correlation between Total Suspended Solids and Turbidity, if necessary;
Correlation = _____
- (6) Submit a completed copy of this form to:

For paper copies: Mail Code 401 – 02B Division of Water Quality Bureau of Surface Water And Pretreatment Permitting P.O. Box 420 Trenton, NJ 08625-0420	For electronic copies: ramanathan.asokan@dep.nj.gov
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Annual Reuse Report - SAMPLE

Any facility that has received an RWBR authorization is required to submit an Annual Reuse Report. The following information, at a minimum, shall be included in the report, due on February 1st of each year.

- (1) The total wastewater reused (R) by the facility in the previous calendar year. If no wastewater was reused in the previous calendar year, report R as zero and skip to (6) below;
R = _____ gallons
- (2) The total wastewater discharged (D) by the facility in the previous calendar year;
D = _____ gallons
- (3) The percent of wastewater reused (%R) by the facility in the previous calendar year, calculated as follows:

$$\%R = R/(R+D), \text{ expressed as a percent;}$$
%R = _____ percent
- (4) The total wastewater that was reused for **each reuse type** in the previous calendar year. This information should be provided in the chart format utilized in the RWBR Usage Table below;

RWBR Usage Table

RWBR Category	Specific RWBR Type	Location	Flow (gallons)
	<i>For Example:</i>		
<i>RA-CM</i>	<i>Street Sweeping</i>	<i>Local Township</i>	<i>42,000</i>
<i>RA-IS</i>	<i>Sanitary Sewer Jetting</i>	<i>Facility Sewer Service Area</i>	<i>15,000</i>
<i>RA-IS</i>	<i>STP Washdown</i>	<i>Sewage Treatment Plant</i>	<i>43,000</i>
		<i>Grand Total (R)</i>	<i>100,000</i>

Attach additional pages as necessary.

- (5) An update to the correlation between Total Suspended Solids and Turbidity, if necessary;
Correlation = _____

- (6) Submit a completed copy of this form to:

For paper copies:
Mail Code 401 – 02B
Division of Water Quality
Bureau of Surface Water
And Pretreatment Permitting
P.O. Box 420
Trenton, NJ 08625-0420

For electronic copies:
ramanathan.asokan@dep.nj.gov