State of New Jersey

PHILIP D. MURPHY
Governor

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Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Water Pollution Management Element
Bureau of Surface Water and Pretreatment Permitting
P.O. Box 420 – 401 E State St
Trenton, NJ 08625-0420
Phone: (609) 292-4860 / Fax: (609) 777-0432

SHAWN M. LATOURETTE
Commissioner

Via Email Only
November 4, 2024

Scott Schreiber, Executive Director
Camden County Municipal Utilities Authority
1645 Ferry Avenue
Camden, NJ 08104

Re: Final Surface Water Renewal Permit Action
Category: A - Sanitary Wastewater (IP)
CSM - Combined Sewer Management (IP)
NJPDES Permit No. NJ0026182
Delaware #1 Water Pollution Control Facility
Camden City, NJ 08104
Camden County

Dear Scott Schreiber:

Enclosed is a **final** NJPDES permit action identified above which has been issued in accordance with N.J.A.C. 7:14A. The Camden County Municipal Utilities Authority (CCMUA) owns and operates the Delaware #1 Water Pollution Control Facility (WPCF) located in the City of Camden, which provides wastewater treatment and transportation services for wastewater collected in a 226 square mile service area which serves about 500,000 people in 36 municipalities. Two of these municipalities, the City of Camden and Gloucester City, are served by Combined Sewer Systems (CSSs) which are hydraulically connected to the CCMUA WPCF. The three permittees own and operate separate portions of one hydraulically connected CSS.

This subject renewal permit action is issued to CCMUA and authorizes the discharge of treated and disinfected domestic wastewater with industrial contribution into Zone 3 of the Delaware River via the WPCF outfall DSN 001A. The existing facility has a NJPDES permitted flow value of 80 million gallons per day (MGD). This permit action also authorizes discharges from the Combined Sewer Overflow (CSO) outfall DSN 040A located in the City of Camden that is owned and operated by CCMUA. The Department is concurrently proposing to issue NJPDES DSW permits to the City of Camden (NJ0108812) and Gloucester City (NJ0108847) to authorize discharges from their CSO outfalls within the hydraulically connected CSS.

Comments were received on the draft permit issued on November 9, 2023. The public comment period began on November 15, 2023 when the public notice was published in the *Courier Post* (available at https://www.njpublicnotices.com). The public comment period was extended to January 22, 2024, encompassing a total of sixty-eight (68) days. A public notice was also published in the *DEP Bulletin* on November 15, 2023 (available at http://www.state.nj.us/dep/bulletin). The Department held three virtual public hearings to solicit public comment on the draft permits. The virtual public hearings were held on December 15, 2023 scheduled from 10am to 12pm; December 15, 2023 scheduled from 6pm to 8pm; and January 22, 2024 scheduled from 6pm to 8pm. 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.

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.

This final permit incorporates changes to the requirements in Part II Section B. See Attachment A of this Cover Letter for more information.

This renewal permit serves to implement the initial five years of the Long Term Control Plan Implementation Schedule as established by the CCMUA, the City of Camden, and Gloucester City ("the Permittees") and as approved in the Administrative Compliance Agreement executed by the Department and the Permittees dated November 1, 2024. This renewal permit also incorporates an additional requirement for the permittee to submit an amended LTCP to finalize the control measures to be implemented beyond the initial five years of the LTCP.

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 Molly Jacoby either by phone at (609) 292-4860 or email at molly.jacoby@dep.nj.gov.

Sincerely,

Brett Callanan, Chief
Bureau of Surface Water and Pretreatment Permitting

Enclosures

cc: Permit Distribution List
Masterfile #: 14667; PI #: 46168

Attachment A

The final permit incorporates changes to the requirements in Part II Section B. The Department has determined that these changes are minor in nature. Only those items in Part II which are affected are listed below, where deletions are shown in strikethrough and additions are shown in underline.

4. Notification of Facility 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. Notification of Change in Ownership and/or Permittee/Operating Entity

a. As set forth at N.J.A.C. 7:14A-16.2, prior to any change in ownership and/or the permittee/operating entity, the current permittee shall provide written notice to the Department at least thirty (30) days prior to the proposed transfer date.

i. Written notice to the Department shall be in the form of a completed Application for Transfer of a NJPDES Permit form, which is available on the Department's website or by contacting the appropriate permitting program.

6. Notification of Changes to the Facility/Permit Contacts

a. The permittee shall notify the Department within thirty (30) days of a change in contact information for any of the following persons associated with the facility/permit:

i. Permittee/Operating Entity Contact;

ii. Property Owner Contact;

iii. Facility Contact; or

iv. Fees/Billing Contact.

b. Notification to the Department shall be in the form of a completed Contact Information Update form (i.e. NJPDES-2 form), which is available on the Department's website or by contacting the appropriate permitting program.

Table of Contents

This permit package contains the items below:

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

List of CSO Acronyms

CMP	Compliance Monitoring Program
CSM	Combined Sewer Management
CSO	Combined Sewer Overflow
CSS	Combined Sewer System
DEAR	Development and Evaluation of Alternatives Report
DWO	Dry Weather Overflow
FCA	Financial Capability Analysis
FCSO	Federal CSO Control Policy
I/I	Infiltration/Inflow
H&H	Hydrologic and Hydraulic
LTCP	Long Term Control Plan
MHI	Median Household Income
NJIB	New Jersey Infrastructure Bank
NJHDG	New Jersey Harbor Dischargers Group
NMC	Nine Minimum Controls
O&M	Operation and Maintenance
PCCMP	Post Construction Compliance Monitoring Program
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RI	Residential Indicator
S/F	Solids/Floatables
SOPs	Standard Operating Procedures
SRF	State Revolving Fund
TWA	Treatment Works Approval

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Surface Water and Pretreatment Permitting

RESPONSE TO COMMENTS

Comments were received on the NJPDES draft Surface Water Renewal Permit Actions No. NJ0026182, NJ0108812, and NJ0108847 issued on November 9, 2023 to the Camden County Municipal Utilities Authority (CCMUA), the City of Camden, and Gloucester City, respectively. The public comment period began on November 15, 2023 when the Public Notice was published in the *Courier Post*. The public comment period was extended to January 22, 2024, encompassing a total of sixty-eight (68) days. The New Jersey Department of Environmental Protection (the Department or NJDEP) held three virtual public hearings to solicit public comment on the draft permits on December 15, 2023 scheduled from 10 a.m. to 12 p.m.; December 15, 2023 from 6 p.m. to 8 p.m.; and January 22, 2024 scheduled from 6 p.m. to 8 p.m.

During the public comment period, the Department accepted written and oral comments from numerous parties and individuals. The Department accepted oral testimony as comments since the public hearings were recorded and transcribed. The public hearings are available to view on the Department's YouTube channel at https://www.youtube.com/channel/UC2C01lO4mVInYzqqwevFvSw. The administrative record includes, but is not limited to, copies of all written comments, testimony given at the public hearings, and any documents identified in this Response to Comments document consistent with N.J.A.C. 7:14A-15.17. The administrative record is available for review and is on file at the offices of the Department, located at 401 E. State Street, Trenton, NJ. It is available for inspection by appointment, Monday through Friday, between 8:30 a.m. and 4 p.m. Appointment for inspection may be requested through the Office of Record Access. Details are available online at www.nj.gov/dep/opra or by calling (609) 341-3121. The full draft permits are available at www.nj.gov/dep/dwq/cso.htm and were posted on November 9, 2023.

The Department has summarized the written comments and public testimony received on the draft NJPDES permits. To the best extent practicable, the Department has grouped the comments according to similar issues then by specific sections of the draft permits. To highlight changes to specific language throughout this document, deletions are shown with strikethrough and additions are shown with underline.

Comments were received from the following persons as identified by the commenter numbers below:

Written Comments		
Person	**Affiliation**	**Commenter Number**
Virginia Wong	Chief, Clean Water Regulatory Branch, United States Environmental Protection Agency (US EPA) Region 2	1
Sewage Free Streets and River	*Comments signed by:* Doug O'Malley, Environment New Jersey Diane Schrauth, New Jersey Future Stefanie Kroll, Riverways Collaboration Jim Cummings, UrbanPromise Nicole Gillespie, The Center for Aquatic Sciences *Advisory Board:* Jose Amarte, Perth Amboy SWIM Suzanne Aptman, Program Manager, SFSR & New Jersey Future Amy Goldsmith, NJ State Director, Clean Water Action Michele Langa, Attorney, Hackensack Riverkeeper & NY/NJ Baykeeper Nicole Miller, Co-chair, Newark DIG *Technical Advisors:* Rosana Pedra Nobre, NY-NJ Harbor & Estuary Program Christopher C. Obropta, Rutgers Cooperative Extension Water	2

	Resources Program	
Jersey Water Works CSO Committee	*Comments signed by:* JWW CSO Committee Andy Kricun, CSO Committee Co-chair Andrea Sapal, Program Coordinator	3
New Jersey Future	Diane Schrauth, Policy Director	4
Jim Cummings	UrbanPromise	5
Kevin Barfield	Camden for Clean Air	6

Testimony at Public Hearing on December 15, 2023		
Morning Session		
Person	**Affiliation**	**Commenter Number**
Jim Cummings	UrbanPromise	5
Jonathan Compton	Director, Center for Environmental Transformation	7
Saraly Gonzalez	Environmental Education Director, UrbanPromise	8
Zaire Seaberry	Student	9
Mike Morgan	Resident, City of Camden Waterfront South	10
Patricia Dunkak	New Jersey Future	11
Kevin Barfield	Camden for Clean Air	6
Suzanne Aptman	Sewage Free Street and Rivers	2
Scott Schreiber	Executive Director, CCMUA	12
Lucia Osborne	American Littoral Society	13
Evening Session		
Person	**Affiliation**	**Commenter Number**
Doug O'Malley	Executive Director, Environment New Jersey	14

Testimony at Public Hearing on January 22, 2024		
Evening Session		
Person	**Affiliation**	**Commenter Number**
Jim Cummings	UrbanPromise	5
Suzanne Aptman	Sewage Free Streets and Rivers	2
Lucia Osbourne	American Littoral Society	13
Kevin Barfield	Camden for Clean Air	6

Comments submitted on behalf of the permittees, as identified below, are included at the end of this document. Refer to Page 51 of 56 for the Permittees' comments and the Department's response.

Written Comments		
Person	**Affiliation**	**Commenter Number**
Ray Bennett	Gloucester City	15
Tom Schevtchuk	Associate, CDM Smith on behalf of Camden County Municipal Utilities Authority	16

Refer to Page 56 of 56 for one comment specific to the CCMUA Delaware No. 1 WPCF.

Written Comment		
Person	**Affiliation**	**Commenter Number**
Virginia Wong	Chief, Clean Water Regulatory Branch, United States Environmental Protection Agency (US EPA) Region 2	1

To the extent practicable, the Department has grouped the comments into the following general categories:

Topics	Comment Numbers
General	1-14
Part II Comments	15
Nine Minimum Control Requirements (Part IV.F)	16-36
Long Term Control Plan Requirements (Part IV.G)	37-105
Custom Requirement (Part IV.H)	106-118
Permittee Comments	119-126
Comment Specific to CCMUA	127

GENERAL COMMENTS

1. **COMMENT:** Thank you to all of the staff at the NJDEP for getting us to this point and for valuing the public health and ecosystems of New Jersey's urban communities. Additionally, a sincere note of thanks to Susan Rosenwinkel and Joe Mannick for the years of hard work they have put into drafting these permits and the collaborative effort they have shown.

   We would also like to acknowledge all of the work that was done by the Combined Sewer Overflow (CSO) permit holders and their consultants to develop these plans, as well as members of the Supplemental CSO Teams, community members, and stakeholders who have worked together over the past several years, some since the issuance of the first CSO Permits in 2015. [2]

2. **COMMENT:** The JWW CSO Committee thanks the NJDEP for all of its work on the CSO Long Term Control Plan (LTCP) process from the very beginning of the initiative to its release of the CSO permits. [3]

3. **COMMENT:** We appreciate this opportunity to comment on the draft NJPDES CSO permits issued to the Camden County Municipal Utilities Authority, the City of Camden, and Gloucester City. Overall, New Jersey Future supports this draft permit as it will improve water quality and reduce combined sewer overflows. [4] [11]

4. **COMMENT:** We are pleased to see the ongoing efforts made to address this issue and are happy to see this permit moving forward. [7]

   RESPONSE (1-4): The Department appreciates the commenters' support of the work involved on the development of the NJPDES CSO permits and LTCP which has led to the issuance of the draft NJPDES Discharge to Surface Water (DSW) permits for Camden County Municipal Utilities Authority (CCMUA), the City of Camden, and Gloucester City (hereinafter referred to as "the Permittees"). The Permittees submitted the LTCP for this hydraulically connected combined sewer system (CSS) in September 2020 (revised September 2023) as required by the March 12, 2015 NJPDES CSO permits. An LTCP is a plan that CSO permittees are required to develop and evaluate a range of CSO control alternatives to ensure conformance with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. The joint coordinated LTCP submitted cooperatively by the permittees reflects many years of data gathering, evaluation and modeling and included an assessment to determine what level of CSO control measures may be reasonably implemented. These subject permit actions serve to renew the 2015 NJPDES

CSO permits issued to the CCMUA Delaware No. 1 Water Pollution Control Facility (WPCF), the City of Camden, and Gloucester City and incorporate the findings of the LTCP. The Permittees own/operate separate portions of one hydraulically connected CSS.

Since the release of the 2015 NJPDES CSO permits, the Department has made a concerted effort to connect with external stakeholders and EPA in order to listen to suggestions at all stages of the LTCP development process. Department staff have participated in many meetings including CSO Supplemental Team meetings as well as meetings held by stakeholders where many of those stakeholders have provided comments on the NJPDES CSO permits. The Department held four stakeholder sessions on the topics of public participation, environmental justice, climate change and CSO metrics on December 7, 2021, January 13, 2022, February 10, 2022 and February 17, 2022, respectively. The Department also held a stakeholder meeting on Permit Concepts on October 6, 2022 on public input collected in these meetings and as collected in written submissions. The Department acknowledges the ongoing collaborative and cooperative effort by stakeholders and permittees to inform the development of LTCPs to reduce CSOs in the affected communities. The Department agrees that this holistic involvement has contributed to the development of comprehensive permit conditions to address the complex issue of CSOs. Notably, the Department developed a guidance document specific to Public Engagement based on requests from the public as available at https://www.nj.gov/dep/dwq/cso.htm.

5. **COMMENT:** I appreciate the extension of the public comment period and the additional public hearing. CSOs are a critical issue. [14]

RESPONSE (5): The Department agrees that addressing CSOs is a critical issue and acknowledges that there has been significant public interest in this topic. Accordingly, while the NJPDES regulations call for a 30-day public comment period, the Department expanded the public comment timeframe in these NJPDES CSO permits and incorporated a public hearing process. Draft NJPDES CSO permits were issued on November 9, 2023 to CCMUA, the City of Camden, and Gloucester City, respectively and all permits were posted on the Division of Water Quality website that same day. The public comment period for all three permits began on November 15, 2023 when the Public Notice was published in the *Courier Post*. The public comment period was originally set to expire on January 15, 2024. However, the Department extended the public comment period until January 22, 2024, incorporated another public hearing date, and notified interested parties of that extension. In total, the Department held three virtual public hearings on December 15, 2023 scheduled from 10 a.m. to 12 p.m., December 15, 2023 from 6 p.m. to 8 p.m., and January 22, 2024 from 6 p.m. to 8 p.m. The public comment period encompassed a total of sixty-eight (68) days.

6. **COMMENT:** We recommend the Department partner with organizations such as the New York-New Jersey Harbor & Estuary Program (HEP) to expand this digital tool (https://wikimapping.com/water-recreation.html) for recreational uses in New Jersey waters, specifically in the state's CSO-impacted bodies of water. This information should inform reclassification of waters, particularly where swimming or other primary contact recreation is taking place in waters not currently managed for that use, and water quality standards should be updated to ensure that primary contact users are protected. [3]

RESPONSE (6): The Department is a regular participant in meetings conducted by HEP and views this organization as an important partner in addressing water quality issues, including CSOs. The Department has reviewed the public access tool provided in this comment and notes that it is a survey that is designed to collect data on recreational uses by the public in the area of New York State. The Department applauds all efforts to enhance recreation to allow the enjoyment of our state's valuable water resources for the public and agrees that this tool could be expanded for New Jersey waters. However, while this is a useful tool in helping to understand public recreational uses, the Department maintains that a public access survey is separate from NJPDES permit conditions and is outside the purview of the Federal CSO Control Policy, which has been adopted into the Department's NJPDES regulations at N.J.A.C. 7:14A-11, Appendix C.

The Department's Division of Water Monitoring, Standards and Pesticides Control regularly assesses New Jersey's waters in order to protect and manage public drinking water supplies, recreational uses, shellfish harvesting and the health of aquatic organisms in accordance with state and federal regulations. New Jersey employs an integrated

approach to assessing water quality by compiling a vast amount of water monitoring data and related information collected by numerous sources throughout the State and evaluating it to determine the health of New Jersey's surface waters. Additional information is available at https://www.nj.gov/dep/wms/.

The Delaware River Basin Commission (DRBC) also assesses and samples waters in the vicinity of the CSO outfalls for water quality though the DRBC Boat Run program. The DRBC has sampled the mainstem of the Delaware River between Trenton and Delaware Bay since 1967. The DRBC collects data from the Delaware River, Cooper River, and Newton Creek. Monitoring is performed monthly from April through October. Additional information is available at https://www.nj.gov/drbc/programs/quality/boat-run_explorer-app.html.

7. **COMMENT:** We know, anecdotally, that people do get gastrointestinal issues sometimes after paddling or being in the water. As organizations in Camden County aim to bring diverse groups to recreate in the water with activities like river-paddling and fishing, they want to protect them from additional burdens to their health, as many of their communities are already affected by compounding problems such as diabetes, hypertension, asthma, etc. While most of the gastrointestinal issues we have heard about are minor, sewage can carry potentially harmful strains of E. coli and other fecal pathogens that have the potential to cause severe health issues.

   Sewage runoff also increases turbidity (cloudiness) of the water, which clogs the gills of sensitive fishes and aquatic invertebrates. Cloudiness combined with high bacterial levels lead to reduced plant growth and therefore lower oxygen levels for all animals in the water. A more diverse ecosystem is always more resilient than a less diverse one, and we want to provide our urban rivers with the best conditions possible. While in the past we have settled for "urban river syndrome" due to multiple stressors, including toxic pollution, we have the opportunity now for healthier urban streams. Dredging and ship traffic pose threats that we may not be able to ameliorate, but preventing bacterial, nutrient, and sediment inputs into the river by reducing CSO inflows provides a significant boost in conditions for a vibrant ecosystem, for wildlife as well as for paddling and fishing.

   Given all of the above points, we urge the NJDEP to work with permit holders, especially Gloucester City, to shorten the timeline as is feasible with appropriate funding. [2]

   RESPONSE (7): Combined sewage can contain bacteria, debris and other substances that can be harmful to people and wildlife. CSOs can also cause algae growth and reduce oxygen levels in the waterway. The Department agrees that CSO-impacted waters are subjected to a variety of stressors that need to be addressed through a reduction in CSOs and through other state regulatory programs. The requirements of the NJPDES CSO permits and CSO control measures implemented by permittees will serve to improve overall water quality for the public and aquatic life and will improve recreational opportunities. The Department agrees that the reduction and/or elimination of CSOs is a high priority and the Department has strived to create these permits with that goal in mind.

   The Department acknowledges that waters in and around CSO outfalls in New Jersey are being used for recreation. The Department created a locational map of CSO outfalls as part of the NJDEP CSO Outfall Interactive Map in addition to other educational materials on the statewide CSO issue. Refer to the Department's website at https://www.nj.gov/dep/dwq/cso.htm.

   Furthermore, it is not considered safe to swim around a CSO during a discharge event. Contaminants contributed by CSOs can include potentially high concentrations of suspended solids, biochemical oxygen demand (BOD), oils and grease, toxics, nutrients, floatables, pathogenic microorganisms, and other pollutants. The reduction of CSOs and the associated contaminants is consistent with the goals of the Clean Water Act and the Department.

   Refer to **RESPONSE (60)** and **RESPONSE (61)** regarding the Implementation Schedule.

8. **COMMENT:** Work done in the past 15 years has been extraordinary. We are concerned about CSO outfalls discharging. How can we help get CSO discharges mitigated so we can safely enjoy Camden's most beautiful natural resource?

I take students who live in Camden and the public into the Cooper River on wooden canoes and kayaks made by UrbanPromise. In the summer we hire students to be river guides to take people onto the tidal Cooper River, so please do these CSO projects as quick as you can. I have seen and continue to see wildlife on the Cooper River for 15 years. These waters are cleaner than they have been in 50 years but CSOs still discharge there.

There have been investments made in the back channel with public and private money, including Pettys Island, Citco remediation, Harrison Avenue landfill, and creation of the Cramer Hill waterfront park with a kayak ramp. If you were to add all that up, it would probably be over a billion dollars being spent to get us to recreate in that beautiful, natural space. Many of those funds came from settlement damages. And yet we are continuing to pollute. I find that somewhat hypocritical. We want to take people out on canoes that we build and have people enjoy it and have safe, healthy water. We're investing so much to bring people on to these waters and yet the timeline to deal with contaminants is a struggle. The timeline for these projects should be rushed to keep up with the work that has been done to bring us onto the water. [5]

9. **COMMENT:** There has been a lot of money being poured into the Camden waterfront and green spaces, which is amazing. But we would like to see a quicker action of reducing CSOs in the Camden area along with these waterfront parks. We are pushing for more recreational use of the water but would like to see healthier outcomes as well. [8]

10. **COMMENT:** We live and go to school in Camden. We want clean water with no CSO overflows. We want solutions quickly so one day we don't have to worry about our health. We also want to see more people enjoying Camden and its beautiful views, rivers, and parks for how it really is. [9]

11. **COMMENT:** Timelines should be shortened to reduce long-term health impacts from CSOs. [11]

RESPONSE (8-11): The Department agrees that there have been significant projects in the City of Camden in order to improve recreational opportunities and the environment. Improvements to water quality and enhanced recreational opportunities are a priority of the Department. In addition to these NJPDES CSO permits, the Department is involved with a wide array of projects through various regulatory programs such as the projects identified in this comment.

As mentioned in these comments, the former Harrison Avenue Landfill was an 86-acre municipal landfill in the Cramer Hill neighborhood of Camden. The Department provided $22 million from the Hazardous Discharge Site Remediation Fund and $4 million in public funds to remediate the landfill. The Department's Office of Natural Resource Restoration allocated an additional $48 million in natural resource damage settlement monies from polluters to transform the remaining 62 acres of the landfill into the Cramer Hill Waterfront Park. Pettys Island is a 292-acre island located in the Delaware River within Pennsauken Township which borders the City of Camden. In 2019, the State of New Jersey announced plans to buy the island, owned by Citgo, and make it a nature preserve. A conservation easement was granted to the New Jersey Natural Lands Trust (the Trust) by the CITGO Petroleum Corporation. To facilitate future educational and public access opportunities, CITGO has committed to a $2 million stewardship fund to be used to provide, among other things, education programming and another $1 million fund to assist the Trust in establishing a cultural and education center.

The Department agrees that a reduction in CSOs is of the utmost priority for human health and water quality benefits. These NJPDES CSO permits contain significant requirements to implement CSO control measures. As stated above, landfill and remediation projects are funded through their own funding sources whereas CSO abatement is funded through separate sources. CSO control measures are eligible for planning and design principal forgiveness loans and guaranteed funds upon construction certification as discussed in **RESPONSE (54-55)** and **RESPONSE (56)**. Additional information regarding the length of the implementation schedule is available in **RESPONSE (60)** and **RESPONSE (61)**.

12. **COMMENT:** We recommend that the NJDEP strengthen requirements in certain areas as described in our provided comments. Where strengthened requirements are not possible by the NJDEP, we recommend that the NJDEP provide separate, concurrent guidance (in a document) for permittees. When providing guidance, we recommend that NJDEP be as specific and prescriptive in their overall guidance as possible.

We appreciate NJDEP's requirement that a financial capability analysis be conducted. We recommend NJDEP issue concurrent guidance to permittees to assist them with tracking and demonstrating their work on affordability. [3]

13. **COMMENT:** We ask NJDEP to please ensure the shortest timeline practicable for implementation and to strengthen requirements and, where that is not possible, to provide permittees with separate guidance documents for the highest design standards, implementation, and public engagement. [4]

RESPONSE (12-13): The Department agrees that prescriptive language should be included in NJPDES CSO permits to the extent practicable and has incorporated such where appropriate within the NJPDES CSO permits. Prescriptive permit language is beneficial to all affected parties, including the community, permittees, and government regulators, as predictive permit language ensures that expectations regarding compliance are clear and measurable. Specific suggestions for prescriptive permit language have been provided within many of the public comments and these suggestions are addressed individually in responses for those specific NJPDES CSO permit sections.

While the Department cannot establish requirements for permittees through guidance, the Department agrees that it is advantageous to develop guidance to explain prescriptive permit language where needed. Refer to the responses below on specific topics regarding commitments to updating or developing guidance, particularly on the topic of Public Engagement.

Regarding the request for guidance on the Financial Capability Assessment, the permittee conducted this assessment as required by the 2015 NJPDES CSO permit and as outlined in the September 2020 (revised September 2023) LTCP. The purpose of this analysis is to evaluate the financial capability of the permittee and its sewer rate payers to fund future investments in combined sewer infrastructure. As required by the 2015 NJPDES CSO permit, the permittee's financial capability was already submitted along with the implementation schedule. Refer to **RESPONSE (65-66)** for additional information.

14. **COMMENT:** We recommend the Department provide concurrent guidance documents to permittees outlining best practices for engaging communities on water conservation methods to ensure this control alternative is properly utilized. [3]

RESPONSE (14): The Department agrees that water conservation can be an effective measure in reducing the amount of flow in a CSS and encourages all permittees to educate the community in this regard. NJDEP guidance materials are available at https://dep.nj.gov/conserve-water/. Water conservation can serve to increase the effective capacity of the CSS which can result in the storage and transfer of additional wet weather flows for treatment. Additionally, water conservation can be a topic for public education and outreach. Water conservation measures are often addressed through building codes and other relevant requirements that are outside the purview of the NJPDES CSO permits.

PART II COMMENTS

15. **COMMENT:** Part II(B)(2)(b) in the referenced permits, which requires that permittees submit a permit renewal application 180 days prior to the expiration date of the existing permit, contains an incomplete sentence. [1]

RESPONSE (15): The Department acknowledges the typographical error in Part II.B.2.b of the CCMUA Delaware No. 1 WPCF, City of Camden, and Gloucester City permits. Corrections are as follows:

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

This change affects Part II.B.2.b of the final permits.

NINE MINIMUM CONTROL REQUIREMENTS (PART IV.F) COMMENTS

16. **COMMENT:** EPA strongly supports the enhanced inspection and cleaning requirements, including requirements to inspect, and clean if needed, a minimum of 20% of the system on a yearly basis, thereby ensuring that the entire collection system is inspected, and cleaned as needed, during the term of the permit. EPA notes that certain critical portions of the system, such as regulators, screening/netting facilities, and tide gates, may benefit from even more frequent inspections, due to the likely impacts from climate change. [1]

17. **COMMENT:** The planning, design, and construction of CSO controls have been (and will be) a long, arduous process for permittees and, likely, the most costly component of the process overall. It is, therefore, critical to ensure the work is well-planned, adequately funded, and maintained accordingly. As potentially one of the most significant public investments a municipality or utility will make, it is critical to allow for transparency with the public on progress, funding sources, avenues for monitoring compliance, and ways to ensure construction and maintenance occur as planned to eliminate future system failures.

    What will be the enforcement mechanism to ensure that the permittee implements the system cleaning program? What will the NJDEP do if the permittee does not comply with the annual system cleaning program and/or if they do not meet the 100% inspection and cleaning of the system at the end of the respective five-year permit? Will performance factors and deficiencies be communicated to the public? If so, how will that be communicated to the public? [2]

18. **COMMENT:** We suggest that the permit include compliance and enforcement language that makes it clear to the permittees that there will be serious consequences if the requirement of cleaning the sewers is not met on a continual basis. Include language that explains the steps that NJDEP will take if the permittee does not comply annually with the system cleaning program and if they do not meet the 100% inspection and cleaning of the system at the end of the respective permit (five years). The permit should require performance factors and deficiencies to be communicated to the public. [3]

    RESPONSE (16-18): The 2015 NJPDES CSO permits contain Proper Operation and Regular Maintenance Program Requirements in Part IV.F.1 which has been carried forward in this renewal permit. The extensive language included in this section of the permit specifically states that the collection system, CSO outfalls, solids/floatables facilities, regulators, and related appurtenances that are owned/operated by the permittee must be operated in a manner to function properly and minimize CSO-related street flooding.

    As part of external outreach leading up to the development of the LTCPs, the Department received multiple requests to include specific, measurable system cleaning requirements within the NJPDES permits to ensure proper maintenance of the CSS. As a result, and upon consultation with several CSO permittees, the Department expanded upon the Proper Operation and Regular Maintenance Program permit requirements by developing the System Cleaning Program requirements in Part IV.F.1.f. Based on these comments and the specific suggestion provided by EPA, the Department is further enhancing the requirements of Part IV.F.1.f regarding the System Cleaning Program.

    Changes to Part IV.F.1.f.ii (CSM Requirements) of the CCMUA Delaware No. 1 WPCF final permit are as follows:

    > ii. The System Cleaning Program shall be designed to ensure that the entire collection system is sufficiently clean which can be accomplished through regular inspection and, if necessary, cleaning. Such inspection and cleaning should be done, such that within five years, the entire system has been covered. Specifically, for CCMUA the total system is 135 miles long. Critical portions of the system, such as regulators, solids/floatables facilities, and tide gates, may benefit even more from frequent inspection.

    Changes to Part IV.F.1.f.ii of the City of Camden final permit are as follows:

    > ii. The System Cleaning Program shall be designed to ensure that the entire collection system is sufficiently clean which can be accomplished through regular inspection and, if necessary,

cleaning. Such inspection and cleaning should be done, such that within five years, the entire system has been covered. Specifically, for the City of Camden the total system is 173 miles long. Critical portions of the system, such as regulators, solids/floatables facilities, and tide gates, may benefit even more from frequent inspection.

Changes to Part IV.F.1.f.ii of the Gloucester City final permit are as follows:

ii. The System Cleaning Program shall be designed to ensure that the entire collection system is sufficiently clean which can be accomplished through regular inspection and, if necessary, cleaning. Such inspection and cleaning should be done, such that within five years, the entire system has been covered. Specifically, for Gloucester City the total system is 39 miles long. Critical portions of the system, such as regulators, solids/floatables facilities, and tide gates, may benefit even more from frequent inspection.

As noted in this permit requirement the permittee is required to submit Progress Reports at Part IV.D.2 with a specific condition customized for the System Cleaning Program at Part IV.D.2.a.ii. A template for the progress report is available at https://dep.nj.gov/dwq/combined-sewer-overflow/cso-permittees/#resources. The Department conducts routine compliance inspections where inspection reports are available online at https://njems.nj.gov/DataMiner.

Failure to comply with the NJPDES permit conditions, including the System Cleaning Program, can result in enforcement action and penalties. Refer to N.J.A.C. 7:14A-6.12, N.J.A.C. 7:14A-8.1 et seq., N.J.A.C. 7:14A-6.2, and N.J.A.C. 7:14A-2.9 as referenced within the permit at Part I of the NJPDES CSO permits. The Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C also contain requirements that relate to the proper operation and maintenance of the collection system.

This change affects Part IV.F.1.f (CSM Requirements) of the final permits.

19. COMMENT: Given the shared agreement, CCMUA can work with Camden City and Gloucester City to ensure that CSS improvements outlined in the LTCP are completed. CCMUA has already been working with Camden City to make these improvements. However, CCMUA has yet to be able to engage Gloucester City officials to collaborate on needed improvements, particularly CSO system cleaning, despite offers to do so.

From discussion with stakeholders and the August 2023 Gloucester City Inspection Report prepared by D & B/Guarino Engineers LLC, the most significant construction timeline bottleneck is the cleaning of the regulators and outfalls in Gloucester City.

We're urging the NJDEP to work with Gloucester City to shorten the timeline for the cleaning of the Gloucester City system. This will enable CCMUA and others to accelerate the design and planning of other projects, which would then shorten the timeline. [2]

20. COMMENT: We recommend that the permittees come together to discuss the CSO system cleaning in Gloucester City and the City of Camden and the timing for the LTCP implementation. Given CCMUA's agreement with both municipalities, it may be possible to consider collaboration between CCMUA and Gloucester City to expedite CSO system cleaning. [3] [4]

RESPONSE (19-20): Collection system cleaning is integral to the proper function of the sewer system and specific requirements have been included in these subject renewal permits. Proper operation and maintenance of the collection system to ensure proper function is the responsibility of all NJPDES CSO permittees for their respective collection system that they own/operate. Proper operation and maintenance of the collection system was a specific requirement in the 2015 NJPDES CSO permit and this requirement was expanded in these renewal permits to provide specific requirement for system cleaning. As such, the City of Camden and Gloucester City are required to ensure that this work is completed either independently or through a shared service agreement. Any shared service agreement is between the respective Cities and CCMUA and the Department is not a participant.

Gloucester City has made progress on collection system cleaning. However, the Department agrees that the area in the vicinity of certain outfalls in Gloucester City are in need of maintenance to ensure that the outfalls can effectively function. Any shared service agreement between CCMUA and Gloucester City to address this issue would be between those two parties. The Department has had multiple meetings with all three permittees within the hydraulically connected system subsequent to the release of the 2015 NJPDES CSO permit to ensure that all parties are aware of the review status of the LTCP; status of collection system cleaning and other improvements; as well as any requirements moving forward as part of the implementation schedule.

In response to the Department's August 9, 2023 Information request, the permittees provided a submission which included a draft Inspection Report entitled "Gloucester City – Inspection of Outfalls and Regulators" dated August 2023. This is the same report referenced in this comment. Section 2.0 includes photographs which show excessive clogging of outfalls 001A (G1), 002A (G2), 003A (G3) and 004A (G4) at the outfall structure. The permittee is responsible for clearing the debris to ensure that the outfall can function. The Department's Southern Bureau of Water Compliance and Enforcement is working to address these compliance issues. Refer to **RESPONSE (59)** for a required update to this inspection report.

21. **COMMENT:** We commend the City of Camden and CCMUA for collaborating to ensure that the CSS in Camden City is cleaned. In an update from CCMUA, we are happy to hear this work will likely be completed within the next year. Unfortunately, the need for a complete system cleaning extends CCMUA's estimated timeline for completion to 15 years. With the system cleaned, the timeline could be shortened to five to ten years. [2]

RESPONSE (21): As described in the Fact Sheet, the system cleaning of the collection system for the City of Camden is required to be completed by October 31, 2024. The implementation schedule, as also referenced in the Fact Sheet, includes the design and construction of significant CSO control projects. Proper sizing of certain CSO control projects is dependent on a rerun of the hydraulic and hydrological model once the system cleaning is complete. Any such model rerun would also document the benefits of the wet weather improvements at the CCMUA WPCF, namely, an increase in wet weather capacity from 150 MGD to 185 MGD and a resultant reduction in CSO discharges. However, the timeline for construction of CSO control projects within the Implementation Schedule is not directly dependent on the completion of system cleaning and is not a basis to shorten the timeline as suggested in this comment.

22. **COMMENT:** We request that NJDEP develop clear and specific inspecting, monitoring, and enforcement procedures to ensure the permittee complies with the system cleaning program for both gray and green infrastructure projects. We also request that the NJDEP staff play a role in inspecting and enforcing all projects, including gray and green infrastructure and maintenance. How will the NJDEP inspect and enforce all projects, including green infrastructure? How will the NJDEP ensure the permittee complies with their maintenance plan for all projects? [2]

23. **COMMENT:** The Department should ensure that the permit requires the permittee to provide documentation that all green infrastructure practices are being inspected and maintained in accordance with the operations and maintenance manual. A cross-reference to New Jersey Administrative Code 7:8 and New Jersey Administrative Code 7:14A requirements for stormwater practice maintenance would be useful. We also recommend that the Department create a system of enforcement to ensure that green infrastructure practices are being maintained.

We request NJDEP define its role in inspecting and enforcing all projects, including gray and green infrastructure, more clearly. [3]

RESPONSE (22-23): The Department agrees that the operation and maintenance of both gray and green CSO control measures is integral to their proper function. Operation and maintenance of CSO control measures, such as green infrastructure, is addressed in a separate permit condition at Part IV.G.6 which reads as follows:

a. Throughout implementation of the LTCP, the permittee shall update the Operational Plan, including Operation & Maintenance (O&M) Manual, Emergency Plan, and Asset Management Plan in accordance with F.1, to address the LTCP CSO control facilities and operating strategies, including but not limited to: the implementation, operation, and maintenance of CSO related bypass, Gray and Green

Infrastructure; staffing and budgeting; and I/I. Climate change resilience requirements shall also be considered in the update of these plans.

Failure to properly operate and maintain any CSO control facility is a violation of the NJPDES permit. Refer to N.J.A.C. 7:14A-6.12, N.J.A.C. 7:14A-8.1 et seq., N.J.A.C. 7:14A-6.2, and N.J.A.C. 7:14A-2.9 as referenced within the permit at Part I of the NJPDES CSO permits. The Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C also contain requirements for an Operational Plan.

Extensive operation and maintenance program requirements are contained in Part IV.F.1 of the NJPDES permits and the System Cleaning Program is included as Part IV.F.1.f. However, the System Cleaning Program requirements do not apply to all gray and green infrastructure but rather is limited to the combined sewer collection system as described in Part IV.F.1.f.

Any green infrastructure practices must comply with applicable state and local rules, regulations and ordinances. While relevant citations to NJPDES regulations are provided within the NJPDES CSO permits, the Department does not agree that it is necessary to include a cross reference to N.J.A.C. 7:8 as these requirements are outside the purview of operation of green infrastructure. N.J.A.C. 7:8 pertains to general requirements for stormwater management plans and stormwater control ordinances; content requirements and procedures for the adoption and implementation of regional stormwater management plans and municipal stormwater management plans under the Municipal Land Use Law; design and performance standards for stormwater management measures as required by various rules; and safety standards for stormwater basins.

24. **COMMENT:** There has been a great deal of concern among impacted community members that they are exposed to Escherichia coli (E. coli) and other harmful bacteria, viruses, and chemicals during sewage backups into homes and streets. The fear of not knowing causes panic and a sense of urgency to disinfect homes. Since this and subsequent permits will only partially solve the localized flooding issue, community members must have time to prepare for impending heavy rainstorms and possible sewage back-ups.

We recommend the Department require that the permittee measures the amount of sewage released in localized flooding. We also recommend the Department require alerts and notification systems in flooding impacted neighborhoods and not just for the Delaware River, Cooper River, and Newton Creek. In the event of sewage backups, CCMUA should be responsible for remedial and emergency measures and not the homeowner or renter.

In addition, while the reports that track flooding and sewage back-ups into streets are technically available, they are not user-friendly and difficult to read. We recommended that the permittee improve public accessibility to this information. [2]

25. **COMMENT:** Sewage back-ups may expose community members to Escherichia coli (E. coli) and other harmful bacteria and chemicals. Since this permit will not completely eliminate all flooding and water quality issues, it is important that community members are notified in advance of possible flooding events. We recommend that NJDEP require permittees to create alerts through a municipal notification system, similar to those used for emergency situations, in advance of potential sewer overflows and back-ups. [4]

26. **COMMENT:** Regarding localized flooding, will the permit require that sewage released during CSO discharges be measured? If so, will there be a mechanism to share about whether or not a CSO discharge has occurred during localized flooding events? This would allow residents to know if they were exposed to contaminated water. [7]

27. **COMMENT:** I'm hoping that the NJDEP does monitor the project and increases monitoring because a lot of people are dealing with back up sewers in their homes and are not being notified when these particular incidents are taking place. This water is contaminated with fecal matter. There should be monitoring and automatic testing of water especially after major storms. [6]

RESPONSE (24-27): During periods of heavy rainfall, the capacity of the CSS may be exceeded, and can cause overflows from manholes onto surface streets and can even cause untreated combined sewage and storm water to

back up into basements. Combined sewage can contain bacteria, debris and other substances that can be harmful. The Department agrees that addressing any areas that flood with combined sewage is of the utmost priority since flooding of combined sewage in streets is a public health concern and is not acceptable. Any events related to CSO-related flooding should be reported to the respective permittee who is required to track this information on required progress reports to be submitted on a semi-annual basis. CSO-related flooding can also be reported to the NJDEP Hotline at 1-888-WARN-DEP where details of the physical address or location should be provided. In addition, locations of CSO-related flooding should be a topic of CSO Supplemental Team meetings as stated in Part IV.G.2.

In addition to the above, specific permit provisions in Part IV.F of all three permits are as follows:

1.h.i. SOPs [Standard Operating Procedures] shall be designed to ensure that the entire collection system owned/operated by the permittee that conveys flows to the treatment works functions in such a way as to not result in sewage overflows (except from designated CSO outfalls) including to basements, streets and other public and private areas, or bottlenecks/constrictions that limit flow in specific areas and prevent the downstream STP treatment capacity from being fully utilized, in accordance with Section F.4.

1.h.x. SOPs shall be designed to provide a system for documenting, assessing, tracking, and addressing residential complaints regarding blockages, bottlenecks, flow constrictions, sewer overflows including to basements, streets and other public and private areas, or related incidents for the collection system that is owned/operated by the permittee.

2.a. The permittee shall continue to use the entire collection system owned/operated by the permittee for in-line storage of sewage for future conveyance to the STP when sewer system flows subside by ensuring that the sewage is retained in the sewer system to the extent practicable to minimize CSO discharges (i.e. volume, frequency and duration), while not creating or increasing sewage overflows, including to basements, streets and other public and private areas.

In summary, the NJPDES permit contains specific permit conditions that require the permittee to directly address flooding through SOPs as well as by requiring a method to track flooding locations.

In addition, it is not feasible to predict where and when CSO-related flooding and basement back-ups may occur given the many variables that impact the occurrence of any CSO-related flooding such as weather patterns, capacity of the CSS, tidal stage, when the last storm occurred etc. Requiring reporting of the amount or volume of raw sewage discharged as suggested in this comment would also not be feasible. Effluent sampling of CSOs during rain events has demonstrated that these levels are not safe and it is unlikely that additional water quality sampling would prove otherwise. Nonetheless, the Department encourages the reporting of CSO-related flooding events to better understand the location of problematic areas. The reduction of CSOs and the associated contaminants is consistent with the goals of the Clean Water Act and the Department.

28. **COMMENT:** Camden City residents are being burdened with major projects just like when there's roads and corporations where a lot of this runoff is coming from and which flow through Camden. Why should this be strictly on Camden residents? That's another exploitation of the residents. Who's speaking on behalf of the residents to try and mediate how this project is being done?

There are 144 miles of sewer lines that have been permitted to decay for more than 30 years. Repairs were rare and when done they were piecemeal at best. Camden's poverty rate is almost 3 times the state and county average. Residents should be part of the teams that inspect the projects too. The city shouldn't have to continue to be the dumping ground for the county and state. Taking on the problems and cost of others impacts our quality of life. [6]

RESPONSE (28): The CCMUA WPCF provides wastewater treatment and transportation services for wastewater collected in a 226 square mile service area which serves about 500,000 people in 36 municipalities. Two of these municipalities, the City of Camden and Gloucester City, are served by combined sewer systems, which are hydraulically connected to the CCMUA WPCF. A combined sewer collection system collects sanitary wastewater

as well as stormwater runoff and are present in many older cities in the state. As noted in the draft permit Fact Sheet, the City of Camden presently has 170 miles of combined sewers and Gloucester City has 40 miles of the collection system. Most municipalities in New Jersey utilize a separate sewer system where there is one pipe for sanitary wastewater which leads to the treatment plant and a separate pipe for stormwater that discharges to the river. Of the 36 municipalities serviced by CCMUA, 34 municipalities utilize a separate sewer system.

Sanitary sewer lines from suburban communities that are serviced by CCMUA do flow through the City of Camden en route to CCMUA. As stated on page 4-9 of the June 2019 Development and Evaluation of Alternatives Report, there are approximately 101 square miles of sanitary sewered areas contributing flow to CCMUA's Delaware No. 1 WPCF. These sewer lines contain sanitary sewer contributions from these communities as well as inflow and infiltration which consists of stormwater runoff and groundwater. Inflow can enter the sanitary sewer line through rain leaders, sump pumps, storm sewer cross connections, and foundation drains that are connected to sanitary sewer pipes. Inflow is greatest during major storm events and can significantly increase wastewater volumes whereas infiltration is a more gradual process which occurs when water seeps into sanitary sewer pipes through cracks, leaky pipe joints and/or deteriorated manholes. Inflow and infiltration can take up capacity in the sewer line. If inflow and infiltration is taking up capacity in the sewer line when it crosses the border into the City of Camden, there is less capacity for stormwater which could be routed to CCMUA as opposed to being discharged as CSOs.

Since the City of Camden owns and operates the collection system, the City of Camden is the permittee and is responsible for permit compliance. However, the Department agrees that inflow and infiltration contributions need to be further evaluated as part of the required LTCP Amendment further described in **RESPONSE (60)**. Reduction of inflow and infiltration flows from municipalities that utilize the sewer line in the City of Camden could be a cost-effective way to reduce CSO flows which could reduce the problem for the City of Camden and Gloucester City. Part IV.F.1.h.1.ii of the NJPDES permit requires that inflow and infiltration be identified and reduced to non-excessive levels as defined at N.J.A.C. 7:14A-1.2. A revised baseline level of inflow and infiltration that contributes to the CCMUA, Camden, and Gloucester City CSSs will be determined through the comprehensive flow monitoring and model update that is required to be completed once the Camden and Gloucester sewers and outfall cleaning is completed. The results of this analysis will be integrated into the updated LTCP model and used in the LTCP Amendment to be submitted with the renewal permit application.

Refer to **RESPONSE (40-42)** regarding permit requirements for Public Engagement which is a forum for the public to provide input on issues related to CSOs. Previously, the 2015 NJPDES CSO permits required public participation to serve as a forum for proposed CSO control measures and to provide input on the LTCP. While the CSO Supplemental Team requirements do not provide an opportunity for City residents to inspect projects as suggested in this comment, staff from the municipalities and CCMUA are typically present at these meetings so this could provide an opportunity to learn about the status of the system and ongoing projects.

With respect to comments about the state of disrepair of the collection system, there have been significant improvements to the City of Camden's collection system. This includes ongoing cleaning of the collection system; rehabilitation of 28 regulator structures with new mechanical equipment installed or removed to allow for increased flows to CCMUA; upgrades to the Arch Street pump station in 2020; and the reconstruction of the collapsed C10 outfall located upstream of the Arch Street pump station. Collectively, these measures have reduced street flooding.

29. **COMMENT:** We recommend the Department require permittees make public how climate change will impact their Vulnerability Assessments during emergency conditions as part of an Emergency Plan to ensure the effective operation of the treatment works and facilities under emergency conditions. [3]

30. **COMMENT:** NJDEP should require permittees to make public how climate change will impact their vulnerability assessments during emergencies, such as extreme weather worsened by the changing climate. [4]

31. **COMMENT:** There is not a lot of specific information on the climate change impact in these documents. There are specific requirements such as the Vulnerability Analysis as part of the Emergency Plan that is related to climate change resiliency. [14]

RESPONSE (29-31): The 2015 NJPDES CSO permit required an Emergency Plan, as stated in the previous 2015 NJPDES CSO permit: "The Emergency Plan shall provide for, to the maximum extent possible, uninterrupted treatment works operation during emergency conditions using in-house and/or contract based services. The Emergency Plan shall include Standard Operating Procedures (SOPs), which ensure the effective operation of the treatment works under emergency conditions, such as extreme weather events and extended periods of no power."

These renewal permits include improved requirements for the Operations and Maintenance Plan including enhanced requirements regarding the existing Emergency Plan. To ensure effective operation of the treatment works and facilities under emergency conditions, including those due to climate change, the Emergency Plan must include a Vulnerability Analysis. The Vulnerability Analysis is intended to estimate the degree to which the treatment works and facilities would be adversely affected by each type of emergency situation which could reasonably be expected to occur including, but not limited to, those emergencies caused by natural disaster; extreme weather events, including those as a result of climate change; civil disorder; strike; sabotage; faulty maintenance; negligent operation or accident. A Vulnerability Analysis shall include, but is not limited to, an estimate of the effects of such an emergency upon the following: Power supply; Communication; Equipment; Supplies; Personnel; Security; and Emergency procedures to be followed.

The Emergency Plan requirements included in these renewal permits shall include SOPs which will ensure the effective operation of the treatment works under emergency conditions, such as extreme weather events, which could be due to climate change, and extended periods of no power. The Department's Emergency Response Preparedness/Planning Guidance and Best Practices can be found at: https://www.nj.gov/dep/dwq/erp_home.htm. In addition, Emergency Plan updates are required to be tracked in the semi-annual progress reports as required by this renewal permit.

The Operation and Maintenance Plan, which includes the Emergency Plan and Vulnerability Assessment, is a living document that is kept by the permittee which is subject to inspection by the Department. The objective of the Vulnerability Assessment is to prepare for the effects of an emergency such as those caused by climate change. An Operation and Maintenance Plan is a routine component of all NJPDES permits where there is a treatment system; however, the NJPDES regulations do not require that the Operation and Maintenance Plan be made public. The nature of this document lends itself to a need for periodic updates and changes.

32. **COMMENT:** We recommend the Department ensure the CSO Supplemental Team provides input on the Asset Management Plan and how the wastewater utility or municipality establishes rates. [3]

RESPONSE (32): Asset Management is a process to ensure that there is sufficient investment and planned maintenance, needed repair, replacement, and upgrade of the physical components of a wastewater system. These physical components of the system infrastructure are considered assets. To achieve effective asset management, a water system must assess the current state of their assets and have a program in place to prioritize investment. This prioritization is done through an Asset Management Program and documented in an Asset Management Plan. Asset Management is separate from affordability and is a separate issue from setting sewer rates. Additional guidance on the development of an Asset Management Plan is available at https://www.nj.gov/dep/assetmanagement/index.html.

The preparation of an Asset Management Plan is a requirement of the NJPDES CSO permits. As stated in Part IV.F.1.l, an Asset Management is required to address asset inventory/mapping and condition assessment, level of service, criticality/prioritization assessment, life-cycle costing, and long-term funding strategy of the treatment works. In addition, the Asset Management Plan must address infrastructure inventory with infrastructure repair/replacement needs listed and scheduled according to priority/criticality.

The objectives of the CSO Supplemental Team as listed in the NJPDES permits at Part IV.G.2 do not include Asset Management or setting sewer rates. Asset Management requirements are designed for the purpose of a permittee developing an Asset Management Plan. Sewer rates will be set by the permittee and are based in part on costs of LTCP projects and presently available funding.

33. **COMMENT:** The Reporting provisions of the permits require the biannual submission of a CSO Progress Report which must include a summary of all implemented CSO controls and their effectiveness, verification that the Operations and Maintenance Manual has been updated, a discussion of the continued implementation of the Nine Minimum Controls (NMCs), and other details.
EPA recommends that this provision be strengthened by specifically listing each control measure from the NMCs and LTCP and requiring the permittee to provide detailed information specific to each control measure in the summary reference above. [1]

RESPONSE (33): Submission of a semi-annual CSO Progress Report is a requirement of these NJPDES CSO permits as per Part IV.D.2. The Department has developed a progress report template, available at https://dep.nj.gov/dwq/combined-sewer-overflow/cso-permittees/#resources, to ensure that useful information is collected.

The Department agrees with the commenter that semi-annual reporting of NMCs is appropriate. In response to the progress report requirement as included in this subject NJPDES CSO permit, the Department has added specific line items for the NMCs in the progress report template. Regarding the inclusion of LTCP measures within the Progress Report, the Department agrees that inclusion of certain measures is appropriate. Specifically, the progress report requests specific details for Public Engagement, Consideration of Sensitive Areas, Operational Plan, Maximizing Treatment at the POTW, Implementation Schedule and Compliance Monitoring Program as shown in the above link.

In sum, the Department maintains that proper completion of the progress report template will ensure that relevant information on NMCs and applicable LTCP requirements will be documented and submitted to the Department.

34. **COMMENT:** EPA recognizes the draft permit requirements concerning the identification and assessment of loading from Significant Industrial Users (SIUs) in the draft permits. However, for permittees with an approved pretreatment program, it is recommended that permittees be required not only to evaluate the SIU impacts from SIUs, but also take appropriate steps to minimize such impacts during times when CSO events are likely to occur.

Section 4.4.1.3 of EPA's Combined Sewer Overflows Guidance for Permit Writers (EPA 832-B-95-008, September 1995) states that, when implementing this NMC, permit writers should consider whether the permittee has:

> "Evaluated the potential for regulating either the volume or pollutant loadings from nondomestic users to the CSS during wet weather flow conditions. The evaluation should include a discussion of whether the modifications are feasible or of practical value to the CSO. For example, the permit writer might evaluate whether the permittee has considered requiring nondomestic users with appropriate storage capacity to temporarily hold wastewater during precipitation events or when notified by the permittee or has considered prohibiting new users from discharging storm water or uncontaminated water, such as non-contact cooling water, to the collection system."

Section 4.4.1.3 of the Combined Sewer Overflows Guidance for Permit Writers also clarifies that permittees without an approved pretreatment program, should determine whether nondomestic sources are contributing to CSO impacts.

EPA recommends that provisions requiring that permittees with an approved pretreatment program take appropriate steps to minimize impacts during CSO events. Concerning Part IV.F.3, it is recommended that permittees with an approved pretreatment program be required to evaluate the CSO impacts from Significant Industrial Users and take appropriate steps to minimize such impacts during times when CSO events are likely to occur. For permittees without an approved pretreatment program, the permittees should continue to implement selected CSO controls to minimize CSO impacts resulting from nondomestic discharges. [1]

RESPONSE (34): CCMUA has an approved pretreatment program as it is a delegated POTW pursuant to N.J.A.C. 7:14A-19. The Department agrees that this language can be clarified to meet EPA's intent in Part IV.F.3.a.

Changes to Part IV.F.3 (CSM Requirements) of the CCMUA Delaware No. 1 WPCF final permit are as follows:

a. For the SIU dischargers upstream of any CSO outfall which is owned/operated by the permittee, the permittee shall: (1) determine the locations of the SIUs; (2) identify the CSO outfalls associated with each of the SIUs; and (3) determine the discharge volume and loading of SIU-permitted parameters for each SIU. In the case of a municipal permittee or non-delegated STP permittee, information to satisfy (1) and (3) shall be obtained from the delegated local agency that regulates the SIU or, if there is no delegated local agency, from the Department. The permittee should take appropriate steps to minimize impacts from SIUs when CSO events are likely to occur. This information shall be used to prioritize O&M activities in portions of the CSS affected by SIU discharges.

The City of Camden and Gloucester City do not have an approved pretreatment program as they are not delegated POTWs pursuant to N.J.A.C. 7:14A-19. Changes to Part IV.F.3 of the City of Camden and Gloucester City final permits are as follows:

a. For the SIU dischargers upstream of any CSO outfall which is owned/operated by the permittee, the permittee shall: (1) determine the locations of the SIUs; (2) identify the CSO outfalls associated with each of the SIUs; and (3) determine the discharge volume and loading of SIU-permitted parameters for each SIU. In the case of a municipal permittee or non-delegated STP permittee, information to satisfy (1) and (3) shall be obtained from the delegated local agency that regulates the SIU or, if there is no delegated local agency, from the Department. The permittee should continue to implement selected CSO controls to minimize CSO impacts resulting from nondomestic discharges. This information shall be used to prioritize O&M activities in portions of the CSS affected by SIU discharges.

This change affects Part IV.F.3 (CSM Requirements) of the final permits.

35. COMMENT: The Maximization of Flow to the POTW provisions in the referenced permits require that the collection system owned/operated by the permittee that conveys flows to the treatment plant be operated and maintained "to maximize the conveyance of wastewater" to the sewage treatment plant for treatment.

Section II(C)(7) of the CSO Control Policy states that an effective strategy to reduce CSO overflows is to "maximize the delivery of flows during wet weather to the POTW treatment plant for treatment." Additionally, Chapter 5 of EPA's Combined Sewer Overflows Guidance for Nine Minimum Controls (EPA 832-B-95-003, May 1995) specifies that the fourth minimum control, Maximization of Flow to the POTW for Treatment, is to "enable as much wet weather flow as possible to reach the treatment plant."

EPA recommends that the permit specifically require the maximization of wet weather flows (both sanitary and storm water) to the treatment plant for treatment, especially in the CCMUA permit which covers the treatment plant. [1]

RESPONSE (35): The Department agrees that maximization of flow to the POTW for treatment is often an effective and cost-effective strategy to reduce CSO volume. CCMUA increased wet weather capacity from 150 MGD to 185 MGD in 2020 which has enabled the collection of additional wet weather flows that were previously discharged from CSO outfalls. Additionally, CCMUA has improved operations at the Arch Street pump station which has ensured that additional wet weather flows are diverted to the POTW.

In order to continue the maximization of flows to the POTW, consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C, Part IV.F.4 of the final permits states the following:

4. Maximization of flow to the POTW for treatment

a. The permittee shall continue to operate and maintain the entire collection system owned/operated by the permittee that conveys flows to the treatment works to maximize the conveyance of wastewater to the STP for treatment subject to existing capacity.

b. The permittee shall continue to implement alternatives for increasing flow to the STP.

i. Capacity evaluations of the entire collection system owned/operated by the permittee that conveys flows to the treatment works in accordance with Section F.1.f to determine the maximum amount of flow that can be stored and transported.

ii. Identification of other activities conducted and/or planned to further maximize flow to the POTW.

36. COMMENT: It is my understanding that the permit has monthly monitoring that does not account for dry spells and increased precipitation that we are experiencing due to climate change. We would like to see an increase in monitoring to identify dry spells. [8]

RESPONSE (36): The Department maintains that the NJPDES CSO permits contain a permit condition that requires assessment of CSO flows including the number of overflows per month and precipitation. This condition applies to each month of the year throughout the 5-year permit cycle and would therefore represent weather patterns in the area such as dry spells or increased precipitation. This requirement was also included in the 2015 NJPDES CSO permits and does show general trends for precipitation and occurrences of overflows. Part IV.F.9 of the NJPDES CSO permits includes the following:

9. Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls

a. The permittee shall monitor the CSO discharge events and record the date, precipitation and duration of discharge for each CSO and discharge event through appropriate modeling or by an appropriately placed flow meter/totaling device, level sensor, or other appropriate measuring device, and report the required information on the MRF as required by Part III of this permit. …

LONG TERM CONTROL PLAN REQUIREMENTS (PART IV.G) COMMENTS

37. COMMENT: Thank you for drafting the CSO Public Engagement Guidance document on the various methods permit holders can use to successfully engage the public while planning and implementing their LTCP. We hope this guidance will encourage permit holders to meet even higher standards of public engagement than those required in the LTCPs. In the near term, please encourage permit holders to start the public engagement process as soon as the permits are finalized, starting with public notifications about the permit and establishment of the CSO Supplemental Team. It is not clear among municipalities and permittees as to when the public engagement process is supposed to start. [2]

38. COMMENT: We commend the NJDEP for issuing the finalized version of the Public Engagement Guidance document earlier this month. The distribution of the Public Engagement Guidance document should be prioritized by NJDEP. [3]

39. COMMENT: Thank you to NJDEP for completing an updated version of supplemental guidance regarding public engagement that included feedback from partners and community groups. [4]

RESPONSE (37-39): As noted in these comments, the Department posted the final guidance entitled "A Guide to CSO Public Engagement" on January 5, 2024 on Department's CSO webpage (https://www.nj.gov/dep/dwq/cso) and notified interested parties on that date. This guidance serves to revise the first set of guidance as posted on the Department's CSO webpage on June 27, 2023, with a stakeholder meeting held on July 19, 2023. At that meeting, stakeholders requested an opportunity to comment on any revised guidance as well as another stakeholder meeting. Since substantive changes were made to the guidance, the Department agreed that another round of input was appropriate for both interested parties and permittees and held another stakeholder meeting on November 28, 2023. Written feedback was collected through December 11, 2023, and the guidance was finalized shortly thereafter on January 5, 2024.

Public Engagement is a requirement of the NJPDES CSO permits. As a result, Public Engagement must begin with the effective date of the permit for all permittees. Public Engagement is an expansion of the Public Participation requirements in the 2015 NJPDES CSO permits to inform the development of the LTCP.

40. **COMMENT:** Given that important decisions will be made in the CSO Supplemental teams, we remain concerned that the public may be underrepresented on those teams since there is no specific requirement for how many community members should participate nor who they should represent. As such, we highly encourage NJDEP to require that a certain percentage of CSO Supplemental teams consist of community representatives and that a certain percentage must be present at any given meeting.

    Moreover, since CSO Supplemental teams are regional versus city-specific, we highly encourage that members present at every meeting represent the specific municipalities included in that regional permit and that at least one of the community members represents a routinely impacted home or neighborhood. [2]

41. **COMMENT:** We recommend the Department clarify the role and responsibilities of the CSO Supplemental Team. We recommend that the language be adjusted to ensure that members of the community, especially those from environmental justice or overburdened communities, are actively included in public engagement. The Supplemental Team should have a transparent process for recruiting members, and that process should be shared publicly. We recommend the Department develop minimum requirements on methods used to recruit and replace CSO Supplemental Team members that ensure a cross-sector representation of the community, given the particular community's makeup.

    We also recommend that the Department require that a majority percentage of community members are aware of the opportunity to participate on the team. We recommend the Department clarify minimum outreach requirements to ensure overburdened communities are aware of Supplemental Team meetings, including through social media and traditional print. [3]

42. **COMMENT:** We support the requirement of permittees to hold a combination of virtual and in-person meetings that are accessible and should include all community members. Hosting these meetings in different and diverse neighborhoods will allow for easier access. Regular meetings that provide a consistent and clearly defined feedback loop with the public where the public may provide input as projects are implemented and see how or if input is incorporated into final decisions will make the implementation process more successful.

    We recommend the Department ensure that overburdened communities are fairly represented on the Supplemental Team and include representatives from the City of Camden, Gloucester City, and Camden County. We also recommend the Department require that a certain percentage of CSO Supplemental Teams consist of community representatives and that a certain percentage must be present at any given meeting. Moreover, since CSO Supplemental Teams may be regional and not city-specific, we highly encourage that members represent the specific municipalities included in that regional permit and that at least one of the community members representing a municipality be present at every meeting. [4]

    RESPONSE (40-42): The Department maintains that requirements pertaining to reconstituting the CSO Supplemental Team as well as the role and responsibilities of the team are prescriptive within the renewal permit to the best extent practicable. As described in the Part IV.G.2.b of the permits, permittees are required to develop a CSO Supplemental Team to serve as a liaison between the affected community, interested public, and the decision makers for the permittee regarding the implementation of the CSO control alternatives. The CSO Supplemental Team shall be reconstituted with the goal of including members of the following groups, at a minimum, where possible: mayor's office, local planning board, local community groups, and residents from the affected areas and from any affected areas that are also overburdened communities. The permittee shall solicit members of its community to join the CSO Supplemental Team through various outreach and public notice activities. The permittee's efforts to recruit CSO Supplemental Team members shall be documented on the permittee's website.

The NJPDES CSO permits also contain language at Part IV.G.2.e specifying that engagement with overburdened communities to solicit representation is required where overburdened communities (OBCs) should be aware of the meeting schedule in order to encourage participation. The Department published a list of overburdened communities in the State and associated electronic mapping available at https://www.nj.gov/dep/ej/communities.html. The permittee is also required to give the Department's Office of Environmental Justice 30 days advance notice of meetings scheduled so they may be shared with Environmental Justice community leaders as described at Part IV.G.2.g. Based on the above, the Department maintains that the objectives of the CSO Supplemental Team are clearly defined within Part IV.G.2.

While the Department maintains that the language as written is sufficiently prescriptive, the NJPDES CSO permit is not intended to dictate the recruitment, retainment, and participation aspect of the Public Engagement process. That should be decided by the permittees based on the needs of the affected community and to allow input from the CSO Supplemental Team members.

Nonetheless, due in part to these comments, the Department has determined it appropriate to clarify permit language at Part IV.G.2.c, which outlines the objectives of meetings related to Public Engagement. Specifically, CSO Supplemental Team meetings should be accessible to all community members by being open to the public which allows for a wider range of participation from community members including OBCs. As a result, Part IV.G.2.c (CSM Requirements) of the CCMUA Delaware No. 1 WPCF, City of Camden, and Gloucester City final permits is modified as follows:

c. The permittee is required to hold regular CSO Supplemental Team ~~public~~ meetings that are open to the public (virtual, in person or a combination of both) in order to:.

This change affects Part IV.G.2.c (CSM Requirements) of the final permits.

43. COMMENT: We recommend the creation of one Supplemental Team for the City of Camden, Gloucester City, and Camden County. [3] [4]

RESPONSE (43): As noted within the draft NJPDES CSO permits, the City of Camden and CCMUA created a CSO Supplemental Team whereas Gloucester City created a separate CSO Supplemental Team in order to comply with the Public Participation requirements of the 2015 NJPDES CSO permits. While these teams were separate for the purposes of the 2015 NJPDES CSO permit, representatives of the Gloucester City did attend some of the City of Camden and CCMUA CSO Supplemental Team meetings. As described in the Part IV.G.2.b of the permits, permittees are required develop a CSO Supplemental Team to serve as a liaison between the affected community, interested public, and the decision makers for the permittee regarding the implementation of the CSO control alternatives. As described in previous comments, Part IV.G.2.c has been modified to clarify that these CSO Supplemental Team meetings shall be open to the public to encourage broader participation.

While there can be benefits to a regional CSO Supplemental Team as suggested in this comment, the NJPDES CSO permit is not intended to dictate the recruitment, retainment, and participation aspect of the Public Engagement process. That should be decided by the permittees based on the needs of the affected community and to allow input from the CSO Supplemental Team members.

44. COMMENT: We recommend the Department develop minimum requirements around the number of Supplemental Team meetings to be held annually so that meetings are not only held when a project is occurring but with a frequency that will keep the public informed. For example, require a minimum of two meetings annually, outside of any project-specific meetings. Require that these meetings also be an opportunity to share funding, jobs, and training opportunities. We also recommend the Department require a minimum number of LTCP milestone meetings with successful efforts in engaging the community. We also recommend the Department require meeting accessibility with clearly defined terms for accessibility for language, visual, audio, and physical access. [3]

45. COMMENT: We recommend the Department clearly define accessibility of meetings in this permit, including how documents will be translated, into what languages, and where they will be posted. We also recommend the

Department require a minimum number of meetings yearly or quarterly to provide updates to the CSO Supplemental Team and the public to maintain transparency, consistency, and engagement throughout the lifecycle of the LTCP. [4]

RESPONSE (44-45): To implement the Public Engagement requirements in these renewal permits, it is suggested that decision making for meeting frequency be decided by the CSO Supplemental Team at the first meeting (similar to the 2015 permits). The permit language as written encourages regular meetings to be held (virtual, in person or a combination of both) with defined tasks. Virtual meetings typically include an option for a telephone call-in number for those who do not have access to a computer. Updates during periods of inactivity can also be communicated through websites as required by these permits. Department representatives attended all CSO Supplemental Team meetings held under the 2015 NJPDES permit and will continue to provide representation at Public Engagement meetings held under these NJPDES permit renewals to ensure compliance with permit requirements. The Department also held stakeholder meetings specific to this topic and prepared guidance specific to this topic available at https://www.nj.gov/dep/dwq/cso.htm. This guidance was a direct result of specific requests and public comments on this topic.

The primary goal of this NJPDES CSO permit is to require the implementation of CSO control measures through an Implementation Schedule. The Department maintains that meeting schedules should be based on dates and milestones within the Implementation Schedules in order to encourage active participation and relevant meeting topics.

In summary, the Department maintains that the NJPDES CSO permit language as written provides clear and specific methods to acquire CSO Supplemental Team members as well as clear language for meeting accessibility including language needs. However, the Department agrees that the permit language in Part IV.G.2.d regarding CSO Supplemental Team meeting attendance can be clarified as it was not the Department's intent to say that meetings should be discontinued. As a result, Part IV.G.2.d (CSM Requirements) of the CCMUA Delaware No. 1 WPCF, City of Camden, and Gloucester City final permits is modified as follows:

d. The frequency of CSO Supplemental Team meetings that are open to the public shall be determined by the milestones in the Implementation Schedule (See G.8.) and by input from the affected community and interested public. ~~Meeting frequency may subsequently be adjusted based on documented attendance.~~ Meetings should be held with accessibility for the interested public in mind. This may include varying start times and attendance options (availability of public transit or parking and virtual meetings), as fits the needs of the affected community and interested public.

This change affects Part IV.G.2.d (CSM Requirements) of the final permits.

46. **COMMENT:** It's important that public engagement requirements are as rigorous as possible. We want to ensure that CSO Supplemental Teams are representative of overburdened communities. Recruitment and outreach to the communities should be equitable, transparent, broad, and effective so we have true representation of the community's voice in supplemental team meetings and implementation of the LTCP. NJDEP should strengthen the requirements of public engagement and enhance its public engagement guidance to hold permittees to those standards. [2]

RESPONSE (46): The Department agrees that public engagement requirements should be rigorous and that CSO supplemental team members should be representative of overburdened communities. Part IV.G.2.e states the following:

e. The permittee shall engage with overburdened communities (OBC) within combined sewer service areas in order to solicit representation and engagement, ensure the OBCs' awareness of the meeting schedule, and encourage participation. The Department published a list of overburdened communities in the State and associated electronic mapping available at https://www.nj.gov/dep/ej/communities.html.

The permittee is also required to give the Department's Office of Environmental Justice 30 days advance notice of meetings scheduled so they may be shared with Environmental Justice community leaders as described at Part IV.G.2.g. The Department maintains that the NJPDES CSO permit language as written provides clear and specific methods to ensure recruitment of CSO Supplemental Team members from overburdened communities. The recruitment of CSO Supplemental Team members should be decided by the permittees allowing input from CSO Supplemental Team members based on the needs of the affected community.

47. **COMMENT:** We recommend NJDEP draft a baseline requirement for what the LTCP Coordinator's role is and what their responsibilities are, including the minimum requirements for communication and outreach to the community. We further recommend NJDEP release a training manual for selecting and onboarding a new LTCP Coordinator and provide clear guidance on how the permittee shall select an LTCP Coordinator and what training the LTCP Coordinator should receive to perform the role effectively. Furthermore, we recommend NJDEP strongly encourage the permit holder to select an LTCP Coordinator who is a current community member from an overburdened community, as this will increase the chances that community voices are part of the public engagement process. [3]

48. **COMMENT:** We appreciate the aspects of the permit that require public engagement, such as the requirement of hiring a LTCP Coordinator, continuing a CSO Supplemental Team and subsequent team meetings, and the creation of a website with public notifications.

    The LTCP Coordinator requirement is a positive shift toward transparency. NJDEP should provide clear guidance on training and onboarding so that this position is consistent and transparent across all permit holders. [4]

    RESPONSE (47-48): The NJPDES CSO permit requires that the permittee designate one LTCP outreach coordinator. This coordinator (or any another person designated by the permittee) must be available to maintain regular communication with the affected community and interested public. The permit also defines the many duties that are expected from the LTCP outreach coordinator so that tasks are clear, specific, and measurable. Refer to Part IV.G.2.f.i through vi.

    The inclusion of an LTCP outreach coordinator was suggested by several external organizations through the stakeholder process and the Department agreed that there were multiple benefits including streamlined coordination and consistency. While the Department agrees that an LTCP outreach coordinator should be familiar with the needs of the affected community, the Department maintains that it is advantageous for the permittees to define how this position will be chosen and managed.

49. **COMMENT:** We recommend the Department clearly establish a process for how CSO Supplemental Team input will be documented, incorporated into the planning and design process, and made public. We also recommend the Department clearly define the process of how the public within and outside of the community can give input to the CSO Supplemental Team.

    Regular progress updates on implementing the LTCP should be posted on the CSO Supplemental Team and CSO public engagement website. In case of any significant changes to the LTCP, the Supplemental Team should notify the website viewers and provide them with an opportunity to comment. The website should also be updated with meeting materials, including presentation slides and materials, flyers, and meeting minutes. The permittee should be required to provide responses to all questions regarding the LTCP, either from the CSO Supplemental Team or from the public through the website, and both questions and answers should be readily available on the website to ensure full responsiveness and transparency. [3]

    RESPONSE (49): The Department maintains that the NJPDES CSO permit conditions encourage a feedback loop in Part IV.G.2.f and other permit conditions in Part IV.G.2. The permit requires that the permittees post handouts or other meeting materials on the website within one week after the meeting. The permit also requires the permittees to make data available on the amount of public feedback received including the number of meeting attendees. The Department maintains that it would be inappropriate to include strict requirements on this topic as the CSO

Supplemental Teams are best suited to managing the needs of their team and members as well as the needs of the affected community.

50. COMMENT: We recommend that once CSO Supplemental Team members are identified, they are listed on the website with clear methods to get in contact with them. [3]

RESPONSE (50): The Department does not agree that it is appropriate to strictly define how the permittees manage their CSO Supplemental Team. In addition, CSO Supplemental Team members may object to publication of their name and contact information on a website which could dissuade interest in involvement. As noted in Part IV.G.2.b, the permittee's efforts to recruit Supplemental Team members are required to be documented on the permittee's website.

51. COMMENT: We support the requirement of permittees to hold Supplemental Team meetings that require permittees to notify the Department's Office of Environmental Justice 30 days before a meeting to include overburdened communities. [4]

RESPONSE (51): The Department acknowledges the commenter's support. As noted within the permit at Part IV.G.2.g, the permittee is required to provide the Department's Office of Environmental Justice (https://dep.nj.gov/ej/) 30 days advance notice of the meeting schedule so that it can be shared with Environmental Justice community leaders.

52. COMMENT: The CSO LTCP does not conform to the sensitive area provisions of the CSO Control Policy.

As noted in the fact sheet (Part 8(C)(3) for City of Camden and Gloucester City and Part 12(C)(3) for CCMUA), the NJDEP previously determined that some CCMUA, City of Camden, and Gloucester CSO outfalls discharge to sensitive areas based on potential habitat for the endangered Atlantic sturgeon and Shortnose sturgeon. NJDEP also identified some CCMUA and City of Camden CSO outfalls as discharging to sensitive areas due to potential habitat for one or more of the state threatened freshwater mussels (Eastern Pondmussel, Yellow Lampmussel, and Tidewater Mucket).

The CSO Control Policy expects "a permittee's long-term CSO control plan to give the highest priority to controlling overflows to sensitive areas" and to "eliminate or relocate overflows that discharge to sensitive areas wherever physically and economically achievable". In addition, the CSO Control Policy recognizes the importance of maximizing treatment at the existing POTW and states that "increased flows during wet weather at the POTW treatment plant may enable the permittee to eliminate or minimize flows to sensitive areas."

The Consideration of Sensitive Areas provisions of the referenced permits specify that outfalls discharging to sensitive areas be "given priority with respect to controlling overflows through the implementation of CSO control projects to meet the minimum 85% wet weather capture requirement." The permits should further explicitly state that overflows that discharge to sensitive areas be eliminated or relocated, wherever physically and economically achievable. Additionally, the permit should recognize the importance of maximizing flows to the POTW in order to eliminate or minimize overflows to sensitive areas.

In addition, Section IV.B.2.e. of the CSO Control Policy identifies the following as a required provision in Phase II CSO permits:

> "A requirement to reassess overflows to sensitive areas in those cases where elimination or relocation of the overflows is not physically possible and economically achievable. The reassessment should be based on consideration of new or improved techniques to eliminate or relocate overflows or changed circumstances that influence economical achievability;".

EPA was unable to locate an analogous provision in the draft permits and request that one be established. [1]

RESPONSE (52): The Department acknowledges that certain outfalls discharge to waterbodies classified as sensitive areas based on potential habitat for Shortnose sturgeon and one or more freshwater mussels (Easten Pondmussel, Yellow Lampmussel, and/or Tidewater Mucket), as noted in the Fact Sheets of the draft permits. The Department acknowledges that the language provided in this comment is included in the Federal CSO Control Policy, N.J.A.C. 7:14A-11, Appendix C, and the Fact Sheets of the draft permits. However, an additional condition at Part IV.G.3.b has been included to address this provision.

Changes to Part IV.G.3.b (CSM Requirements) of the CCMUA Delaware No. 1 WPCF, City of Camden, and Gloucester City final permits are as follows:

b. The permittee is required to prohibit new or significantly increased CSOs and to eliminate or relocate CSOs that discharge to sensitive areas wherever physically possible and economically achievable. Additionally, where elimination or relocation is not physically possible and economically achievable, or would provide less environmental protection than additional treatment, the permittee is required to provide the level of treatment for the remaining CSOs deemed necessary to meet water quality standards for full protection of existing and designated uses.

This change affects Part IV.G.3 (CSM Requirements) of the final permits.

53. COMMENT: Phase II CSO permits must include water quality-based effluent limitations expressed as a numeric performance standard for the CSO controls.

Section 301(b)(1)(c) of the Clean Water Act requires that permits include limits as necessary to meet water quality standards. EPA's regulations at 40 CFR §122.44(d)(1)(vii)(A) require that permits include limits that derive from and comply with water quality standards.

Section IV.B.2.c.ii of the CSO Control Policy states that the Phase II permits should contain "water quality-based effluent limits under 40 CFR Section 122.44(d)(1) and 122.44(k), requiring, at a minimum, compliance with, no later than the date allowed under the State's WQS, the numeric performance standards for the selected CSO controls, based on average design conditions" which include "a minimum percentage capture of combined sewage by volume for treatment under specified design conditions" consistent with Section II.C.4.a.ii, which states that no less than 85% by volume of the combined sewage collected in the CSS during precipitation events on a system-wide annual average basis must be eliminated or captured for treatment.

The example provided below shows how the draft permits may be revised to include a water quality-based effluent limitation for the CSO discharges.

Exhibit 4-4. Example Permit Language for Performance Standards for the Presumption Approach

I. Effluent Limits

B. Water quality-based requirements for CSOs

The permittee shall not discharge any pollutant at a level that causes or contributes to an in-stream excursion above number or narrative criteria adopted as part of the **[insert State name]** water quality standards.

The permittee shall comply with the following performance standards. These standards shall apply during **[insert average design conditions upon which controls are based]**.

1. **[The permit writer should select the appropriate standard below.]**

The permittee shall discharge no more than an average of [insert appropriate number: 4, 5, or 6] overflow events per year not receiving the treatment specified below.

[or]

The permittee shall eliminate or capture for treatment, or storage and subsequent treatment, at least 85 percent of the system-wide combined sewage volume collected in the combined sewer system during

precipitation events under design conditions. Captured combined sewage shall received the treatment specified below.

[or]

The permittee shall eliminate or remove the following mass of pollutants from the combined sewage volume collected in the combined sewer system during precipitation events under design conditions:

[insert x] pounds of [insert pollutant]
[insert y] pounds of [insert pollutant]

Combined Sewer Overflows Guidance for Permit Writers, - August 1995, EPA 832-B-95-008.
https://www.epa.gov/sites/default/files/2015-10/documents/csopermitwriters_full.pdf

To ensure compliance with this Phase II CSO permit requirements in the CSO Control Policy, the permits must include water quality-based effluent limitations expressed as a numeric performance standard for the CSO controls. [1]

RESPONSE (53): The Department acknowledges that CSOs are point sources subject to NJPDES permit requirements that include both the technology-based and water quality-based requirements of the Clean Water Act. Section 301(b)(1)(C) of the Clean Water Act requires that permits include limits as necessary to meet water quality standards. Likewise, EPA's regulations at 40 CFR 122.44(d)(1)(vii)(A) require that permits include limits that derive from and comply with water quality standards. Similar language is included within the NJPDES regulations at N.J.A.C. 7:14A-11, Appendix C, Section IV.B.2, Phase II Permits – Requirements for Implementation of a Long-Term CSO Control Plan.

All New Jersey CSO permittees, including CCMUA, the City of Camden, and Gloucester City, have selected the "Presumption Approach," as described in II.C.4.a of the Federal CSO Control Policy, N.J.A.C. 7:14A-11, Appendix C, and specified in Part IV.G.4.a.ii of this NJPDES CSO permit. Under the Presumption Approach, a permittee that meets any of the following criteria would be presumed to provide an adequate level of control to meet the water quality-based requirements of the Clean Water Act, and provided the permitting authority determines that such presumption is reasonable in light of the data and analysis conducted in the characterization, monitoring, and modeling of the system and the consideration of sensitive areas. Criteria is as follows:

(1) no more than an average of four overflow events per year, provided that the permitting authority may allow up to two additional overflow events per year. For this criterion, an overflow event is one or more overflows from a combined sewer system (CSS) as the result of a precipitation event that does not receive the minimum treatment specified below;

(2) the elimination or the capture for treatment of no less than 85% by volume of the combined sewage collected in the CSS during precipitation events on a system-wide annual average basis; or

(3) the elimination or removal of no less than the mass of the pollutants, identified as a causing water quality impairment through the sewer system characterization, monitoring, and modeling effort, for the volumes that would be eliminated or capture for treatment under (2) above.

Combined sewer flows remaining after implementation of the nine minimum controls and within the criteria specified in (1) or (2) should receive a minimum of: primary clarification (removal of floatables and settleable solids that may be achieved by any combination of treatment technologies or methods that are shown to be equivalent to primary clarification.); solids and floatables disposal; and disinfection of effluent, if necessary, to meet WQS, protect designated uses and protect human health, including removal of harmful disinfection chemical residuals, where necessary. Where a permittee has selected controls based on the Presumption Approach, the Department must have determined that the presumption that such level of treatment will achieve water quality standards is reasonable considering the data and analysis conducted under the Federal CSO Control Policy.

Because CCMUA, the City of Camden, and Gloucester City have selected the Presumption Approach, the numeric performance standard for the selected CSO controls is a minimum percentage capture of combined sewage by volume for treatment under specified design conditions. This is consistent with Part IV.B.2.c.ii, which refers to II.C.4.a.ii, of the Federal CSO Control Policy. As a result, the Department acknowledges that the minimum 85% volume capture must be expressed explicitly in the permit as a water-quality based effluent limit to achieve water quality standards. As a result, the Department agrees that it is appropriate to include II.C.4.a.ii of the Federal CSO Control Policy as a water-quality based requirement for CSOs as a numeric performance standard. Accordingly, the Department has included this additional language as Part II.C.2 of this final NJPDES permit to ensure conformance with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. The Department met with CCMUA, the City of Camden, and Gloucester City on April 18, 2024 and notified them of this change.

As a result, an additional condition has been included in Part II of the final permits. The addition to Part II.C.2 of the CCMUA Delaware No. 1 WPCF, City of Camden, and Gloucester City is as follows:

2. Water-Quality Based Requirements for CSOs as a Numeric Performance Standard

   a. CSOs are point sources subject to NJPDES permit requirements including both technology-based and water-quality based requirements of the Clean Water Act.

   b. Water quality-based effluent limits under 40 CFR Sections 122.44(d)(1) and 122.44(k) require, at a minimum, compliance with, no later than the date allowed under the State's WQS, the numeric performance standards for the selected CSO controls, based on average design conditions. Because the permittee selected the Presumption Approach, as specified in Part IV.G.4.a.ii,the numeric performance standard for the selected CSO controls is a minimum percentage capture of combined sewage by volume for treatment under specified design conditions consistent with II.C.4.a.ii of the CSO Control Policy.

These changes affect Part II of the final permits.

54. COMMENT: We recommend the Department specify guidance to permit holders around other cost-effective, innovative financing opportunities to help finance this work equitably, such as stormwater utilities, NJ Water Bank low-interest loan programs, utilizing green infrastructure, accessing grant programs, and more. This guidance on innovative funding strategies should be given concurrently with the release of the final permit so that it may be incorporated into the final implementation plans with a goal of shortening timelines around critical projects while maintaining affordability for ratepayers.

We recommend the Department provide guidance and technical assistance for municipal CSO permittees to conduct stormwater utility fee feasibility studies to determine if this assessment opportunity would benefit their communities. [3]

55. COMMENT: NJDEP provides specificity in its guidance to permit holders around other cost-effective, innovative financing opportunities to help fund this work equitably, such as Water Bank low-interest loan programs, utilizing more green infrastructure, grants, and more.

NJDEP should provide future funding for stormwater utility feasibility studies through additional rounds of Technical Assistance for Stormwater Utility Feasibility Studies. Establishing a stormwater utility will help offset future costs to ratepayers. [4]

RESPONSE (54-55): The Department and the New Jersey Infrastructure Bank (NJIB) partner together as the New Jersey Water Bank to administer New Jersey's State Revolving Fund in order to provide low-cost financing for the design, construction, and implementation of projects that help to protect, maintain and improve water quality. The Department recognizes the importance of providing robust funding opportunities for CSO projects, including gray and green infrastructure, wastewater treatment plant (WWTP) improvements, and stormwater resilience projects. To this end, the New Jersey Water Bank offers a variety of funding packages with low interest loans and principal

forgiveness, and additional resources for disadvantaged communities. For additional information visit http://nj.gov/dep/dwq/cwpl.htm.

A fact sheet specific to CSO funding was recently developed to assist permittees and can be found at https://dep.nj.gov/dwq/combined-sewer-overflow/. This guidance document includes a summary about these funding opportunities for the upcoming State Fiscal Year.

The New Jersey Water Bank offers free technical assistance to disadvantaged communities for clean water projects. Participants of this program are also eligible for planning and design principal forgiveness loans and guaranteed funds upon construction certification. This comprehensive support framework streamlines project development for disadvantaged CSO communities and enhances capacity to comply with their LTCPs and meet their environmental and infrastructural needs. Detailed information about these funding opportunities, including eligibility and technical assistance can be found within the Programs Intended Use Plan at https://dep.nj.gov/wiip/intended-use-plan-and-project-priority-lists/.

Stormwater utility fees are similar to a water or sewer utility fee except customers pay a fee based on the amount of impervious surface on their property. This includes all commercial, residential, and tax exempt properties within the service area. Comprehensive guidance for stormwater utility creation, feasibility studies, and fee assessments is available at https://dep.nj.gov/njpdes-stormwater/swu_stormwaterutility. If grants for stormwater utility feasibility studies become available, notices will be posted to https://dep.nj.gov/grantandloanprograms/. Stormwater utilities can be a means to fund infrastructure projects. However, feasibility studies for stormwater utilities are outside the scope of the NJPDES CSO permit.

56. COMMENT: With respect to the permittees' financial capability, the CSO Control Policy states that "each permittee is ultimately responsible for aggressively pursuing financial arrangements for the implementation of its long-term CSO control plan: and that "[a]s part of this effort, communities should apply to their State Revolving Fund program, or other assistance programs as appropriate, for financial assistance."

To this end, EPA strongly recommends that NJDEP negotiate with the permittees to aggressively pursue all available funding opportunities so that CSO controls may be designed and implemented as soon as practicable.

Related, EPA developed the Combined Sewer Overflows – Guidance for Financial Capability Assessment (FCA) and Schedule Development (EPA 832-B-97-004, February 1997) to assist in the development of CSO control implementation schedules and to this end, includes guidance on performing a FCA. The goals of this guidance document are that it serve as a planning tool for evaluating the financial resources a permittee has available to implement CSO controls, and to assist the permittee, EPA, and state National Pollutant Discharge Elimination System (NPDES) authorities in cooperatively developing CSO control implementation schedules. The EPA guidance includes a methodology to evaluate the financial "burden" CSO control implementation places on permittees; it suggests that a longer implementation schedule of up to 15-20 years may be appropriate for "High Burden" permittees, a schedule of up to 10 years for "Medium Burden" permittees, and a Normal Engineering/Construction schedule for "Low Burden" permittees. [1]

RESPONSE (56): As described in **RESPONSE (54-55),** the Department understands the important role that State Revolving Fund funding plays in the reduction of CSOs. The Department and the NJIB partner together as the New Jersey Water Bank to administer New Jersey's State Revolving Fund in order to provide low-cost financing for the design, construction, and implementation of project that help protect, maintain, and improve water quality. A fact sheet specific to CSO funding was recently developed to assist permittees and can be found at https://dep.nj.gov/dwq/combined-sewer-overflow/ including funding opportunities for the upcoming State Fiscal Year.

The Department recognizes the importance of providing robust funding opportunities for CSO projects. To this end, the Department has been proactively working with CCMUA, the City of Camden and Gloucester City to inform them of funding opportunities. Most recently, funding and permitting staff met with CCMUA, the City of Camden and Gloucester City on February 26, 2024, March 26, 2024 and April 18, 2024 where the permittees were encouraged

to explore New Jersey Water Bank funding, particularly in light of new opportunities presented by the Bipartisan Infrastructure Law (BIL) and American Rescue Plan Act (ARPA). Under the BIL, the SFY 2025 Water Bank Program features enhanced principal forgiveness. ARPA funds will be used to make principal forgiveness loans to applicants that are sponsoring eligible CSO projects listed within CSO LTCPs.

CCMUA has historically aggressively pursued funding through the New Jersey Water Bank and has recently submitted its 38th application for funding and the Department is confident CCMUA will continue to do so. CCMUA has received loan forgiveness from the New Jersey Water Bank for several projects to maintain and improve its WPCF; these projects have increased the amount of wet weather flow the facility can treat. Most recently, the CCMUA is implementing a $27.5M project for improvements to its bar screen and grit removal operation and has initiated construction of a $24M combined sewer separation project to remove stormwater flows from the Pennsauken wastewater collection system. The City of Camden has submitted more than 15 applications for funding and 12 projects have been completed or are under construction. Additional applications are anticipated as the City of Camden continues to address its CSS. Gloucester City has implemented 5 projects with New Jersey Water Bank funding and an additional 2 projects are currently under review.

Since 2015, the Department has maintained a dedicated team for all CSO permittees and associated projects in order to provide guidance, streamline funding applications, and ensure internal and external coordination. A variety of wastewater treatment facility, CSS, and stormwater management projects have been financed through the New Jersey Water Bank to date.

57. **COMMENT:** We encourage the NJDEP and the permittees to take advantage of EPA's technical assistance intake form, which begins the formal process for communities, utilities, and state to request assistance with financial capability assessments and with finding and applying for funding opportunities. [1]

58. **COMMENT:** There are new federal funding opportunities, released since the LTCPs were drafted, that permit holders can take advantage of through the Water Bank. In addition, there is technical support from the EPA that permit holders can take advantage of to help them develop a more robust financial capability analysis. This is described and recommended in the US EPA's 2023 CWA FCA Guidance. [2]

RESPONSE (57-58): The Department agrees that all available funding opportunities should be pursued. The Department is aware that EPA's free Water Technical Assistance (WaterTA) services support communities to identify water challenges, develop plans, build technical, managerial, and financial capacity, and develop application materials to access water infrastructure funding. Additional information is available at https://www.epa.gov/water-infrastructure/request-water-technical-assistance. The Department has shared information regarding available funding and the EPA technical assistance program with the Permittees.

59. **COMMENT:** The implementation schedule discussion in the fact sheet notes that the initial inspection and cleaning of 100% of the Gloucester City collection system and regulator cleaning was completed in 2023. The current Gloucester City permit, which expired on June 30, 2020 and is administratively continued, does not require collection system and regulator cleaning.

Under Combined Sewer Management in Part IV of the permit, Section G.8.b.i. indicates that there are no required projects for the first year of the permit. EPA recommends that for Year 1, NJDEP require Gloucester City to submit a report on the completion status of cleaning its collection system and regulators, and consider adding a requirement for further cleaning should NJDEP determine that cleaning was insufficient, given this control is a prerequisite to other controls. EPA also requests that NJDEP determine if any CSO controls can be practicably moved to Year 1 (e.g., the CSO outfall cleaning required in Year 2).

Federal regulations, at 40 CFR 122.47(a)(3)(i), state that the time between interim dates in a compliance schedule shall not exceed 1 year. The corresponding state regulations, at NJAC 7:14A-6.4(a)(2)(i) and (ii), state that the interim dates established in a compliance schedule shall not exceed one year and that, when the project is not readily divisible into stages for completion, the permit shall specify interim dates for reports of progress towards completion.

EPA recommends that NJDEP ensure that the system cleaning requirements are completed as soon as practicable in order to prevent delay of the comprehensive flow monitoring program. [1]

RESPONSE (59): The Department maintains that proper operation and maintenance of the collection system is a requirement of the 2015 NJPDES CSO permit as specified throughout permit conditions in Part IV.F.1 of that permit. However, as noted previously, the Department included specific System Cleaning Program requirements to ensure that the system is periodically cleaned and completely inspected over the five year life of the permit. The permittees are also required to submit semi-annual progress reports as per Part IV.D.2.

While Gloucester City has made progress on the collection system cleaning of their system, certain CSO outlet structures are in need of maintenance including dredging. The Department agrees that a deliverable is appropriate for the status of the outfall structures in Gloucester City at the end of the first year of this permit. The Department has also determined that a second inspection report is appropriate for the end of the second year of the permit as well as a due date for project completion. Given that this is a substantive change from and not discussed in the draft NJPDES CSO permit issued to Gloucester City, the Department has determined it appropriate to issue a major modification pursuant to N.J.A.C. 7:14A-16.4. This modification will detail the necessary components of any updated inspection report. The Department intends to require an Inspection Report that includes findings of any inspections; photos of each outlet structure; description of the operating condition and functionality of each CSO outfall and regulator; CCTV of each outfall structure; identification of manholes and catch basins and any other connections to each outfall; and mapping of each outfall pipe.

60. COMMENT: The draft CCMUA, City of Camden and Gloucester City permits establish implementation schedules which include the following requirements:

> "Year Four (EDP+3 years to EDP + 4 years): Evaluate structural control alternatives to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather; Continued implementation of GSI [Green Stormwater Infrastructure] and Street Flood Mitigation Programs."
>
> "Year Five (EDP + 4 years to EDP + 5 years): Complete evaluation of structural control alternatives to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather and submit to the NJDEP for review, Continued implementation of GSI and Flood Mitigation Programs."

Section II.C. of the CSO Control Policy states that permittees should develop and submit a LTCP "as soon as practicable, but generally within two years after the date of the NPDES permit provision, Section 308 request information request, or enforcement action requiring the permittee to develop the plan. A longer timetable for completion of the LTCP may be established on a case-by-case basis to account for site-specific factors which may influence the complexity of the planning process." As required by their current permits, CCMUA, City of Camden, and Gloucester City submitted a joint "Selection and Implementation Alternatives Report" (i.e., their LTCP), dated September 2020, to NJDEP for review and approval.

As described in a letter dated May 7, 2021, NJDEP determined that the LTCP "must be revised in its selection of alternatives for compliance with the Federal CSO Policy and must structure the schedule for those projects based on affordability." A revised version of the LTCP was submitted to NJDEP in September 2023, however, NJDEP determined that additional data collection and analysis is required to update the LTCP model, which in turn, will provide updated capture rate data to refine and identify the additional controls necessary to achieve 85% system-wide wet weather capture.

EPA supports the requirement for CCMUA, City of Camden and Gloucester City to revise the LTCP. However, considering the length of time since an LTCP was initially required, the permits should explicitly state that the LTCP submitted in Year 5 must be approvable, consistent with the CSO Control Policy and include all of the selected controls to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather. [1]

RESPONSE (60): The Department has determined that the LTCP dated September 2020 (revised September 2023) is currently not approvable beyond the first five years of the implementation schedule. The Department acknowledges that Section II.C of the Federal CSO Control Policy addresses the length of time between a permit provision and submission of the LTCP. This provision further states that a longer timetable for completion of the LTCP may be established on a case-by-case basis to account for site-specific factors which may influence the complexity of the planning process. Given the circumstances, a longer timeline for completion of the LTCP for CCMUA, the City of Camden, and Gloucester City is appropriate.

The Department acknowledges that CSO projects should be completed as soon as practicable. Since submission of the LTCP in September 2020, and prior to having an approved LTCP, CCMUA, the City of Camden, and Gloucester City have continued to work on projects to improve the operation of the collection system and to increase wet weather percent capture. The Department has been actively involved with these projects and many of them have received New Jersey Water Bank Funding. CCMUA completed the wet weather capacity expansion of its WPCF from 150 MGD to 185 MGD in 2020. The City of Camden has also completed the rehabilitation of 28 regulator structures; upgrades to the Arch Street pump station; and has nearly completed the restoration of the hydraulic capacity of Camden's CSS through a comprehensive sewer and outfall cleaning and rehabilitation program. Gloucester City has also been progressing with system-wide collection system and outfall cleaning and as-needed spot repairs. Refer to the November 9, 2023 draft permit Fact Sheet (Pages 5-7 of CCMUA and Gloucester City; Pages 6-8 of the City of Camden) and the Contents of the Administrative Record for a description of specific projects and the numerous correspondences between the Department and the Permittees. It is understood that an LTCP would typically "start the clock" on the initiation of CSO control measures; however, this was not the case for this CSS as certain improvements to increase wet weather percent capture have already occurred.

Particular to this CSS, collection system and outfall cleaning is still ongoing, but is nearly completed, in both the City of Camden and Gloucester City. Since the collection system and outfalls were not fully cleaned at the time the hydrologic and hydraulic (H&H) model was run for the purposes of the September 2020 LTCP creation, the full hydraulic capacity of the hydraulically connected CSS was not represented. As such, comprehensive flow monitoring will be necessary to measure the hydraulic capacity of the system post-cleaning and the efficacy of the recently completed projects. This flow monitoring will inform the refinement and recalibration of the existing H&H model to reflect current conditions and provide accurate information upon which to develop and select CSO control measures. A re-evaluation of H&H modeling as CSO control projects are implemented is not unique to this hydraulically connected CSS and is a required component of all NJPDES CSO permits as it is consistent with the Post Construction Compliance Monitoring Plan (PCCMP) requirements within the Federal CSO Control Policy.

However, while the LTCP submitted in September 2020 outlines a number of CSO control measures, CCMUA and the Cities proposed that the scope and sizing of the satellite facilities be re-evaluated through an amended LTCP including construction to occur during subsequent permit cycles. This timing was primarily intended to provide sufficient time for the completion of the system capacity restoration (e.g., system cleaning) in Camden and Gloucester City prior to conducting a comprehensive flow monitoring and modeling update to document the system condition. Once this update is performed there will be a reevaluation of control needs including specifics on storage and satellite systems which is necessary for proper sizing and design. In addition, information is needed on infiltration and inflow for the separately sewered towns that contribute to the CSS and are utilizing capacity as referenced in the Department's request for information dated August 9, 2023.

In recognition of the foregoing, principally due to the need to re-evaluate satellite facilities and amend the September 2020 LTCP accordingly, the Department has determined that beyond the first five years, the September 2020 (revised September 2023) LTCP is not approvable at this time. As such, the Permittees must submit an amended and approvable LTCP in Year 5. The re-evaluation of the H&H model will enable the Permittees to determine what control strategies are necessary to achieve compliance with the Federal CSO Control Policy. The amended LTCP must detail all control strategies necessary to achieve compliance with the Federal CSO Control Policy.

As discussed further in **RESPONSE (61)**, the Department determined it appropriate to approve the first five years of the implementation schedule through an Administrative Compliance Agreement mutually executed between the Department and Permittees.

The Department appreciates EPA's support of the requirement for CCMUA, City of Camden, and Gloucester City to amend the LTCP. The Department has provided additional detail on the specifics that must be included for the required LTCP Amendment and agrees that language is appropriate to state that it must be an approvable LTCP. Despite ongoing efforts to restore the collection system, the Department agrees that the current wet weather percent capture has changed since the time of flow metering as outlined in the 2018 System Characterization Report.

As a result of the foregoing, an additional condition has been included in Part IV.D.3. This Part IV.D.3 condition serves to incorporate as permit conditions those requirements noted in the Fact Sheet of the November 9, 2023 draft permits, specifically that the Permittees must complete cleaning of the CSS, conduct flow monitoring, update the H&H model, and submit a revised LTCP. Likewise, the terms of the Administrative Compliance Agreement dated November 1, 2024, are consistent with the additional condition of Part IV.D.3.

The addition to Part IV.D.3 of the CCMUA Delaware No. 1 WPCF, City of Camden, and Gloucester City is as follows:

3. LTCP Amendment

a. As set forth herein and in an Administrative Compliance Agreement (ACA) executed between the Department and the Permittees dated November 1, 2024, the Permittees (CCMUA, the City of Camden, and Gloucester City) shall submit a joint amendment to the September 2020 (last revised September 2023) ("Joint LTCP") LTCP within 180 days of the expiration date of the permit in accordance with the terms below. The LTCP Amendment shall be submitted as an attachment to the NJPDES permit renewal application. The LTCP Amendment must be approvable, consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C, and outline CSO control strategies to identify the capture of a minimum of 85% of the annual average combined sewage collected in the system during wet weather.

b. The Permittees shall jointly take the following actions:

i. Complete the restoration of the hydraulic capacity of the CSS through a comprehensive sewer and outfall cleaning and rehabilitation program as set forth in Part IV.G.8.b. of the Permittees' NJPDES CSO permits,

ii. Consistent with Section 7.3 of the Joint LTCP, a flow monitoring program shall be implemented to update the modeling results obtained as part of the 2018 System Characterization Report. The flow monitoring program, including the time period for flow metering, must be approved by NJDEP in writing. The contributions and impacts of wet weather flows into the CSS which are attributable to the thirty-four separately sewered municipalities within the CCMUA sewer service area will be ascertained using data from the CCMUA's permanent flow meters within its regional interceptor sewer system, augmented by additional flow monitors and other data sources to be included in the flow monitoring program developed by the Permittees and approved by the Department. This data shall be used to perform a continuous simulation of the calibrated/validated H&H model using the system-wide annual average as identified in Section 6.0 of the 2018 System Characterization Report as approved by the Department on January 24, 2019,

iii. Consistent with Section 5.2.3 of the Joint LTCP and Part IV.F.1.h.xii of the Permittees' NJPDES CSO permits, determine the aggregate amount of I&I contributed to the CSS by the thirty-four (34) separately sewered towns within the CCMUA sewer service area. This determination shall be completed through the flow monitoring program and model update referenced in Part IV.D.3.b.ii above; and

iv. Utilize updated modeling results arrived at in accordance with Part IV.D.3.b.ii above, to evaluate what structural control alternatives (CSO satellite or storage controls) are necessary to capture a

minimum of 85% of the annual average combined sewage collected system-wide during wet weather consistent with the FCSO Policy.

c. Based on the actions set forth in Part IV.D.3.b above, the Permittees shall jointly amend the Joint LTCP to include the following ("LTCP Amendment"):

i. The results of the flow monitoring program and the results of the re-evaluation of the H&H model, both of which shall, consistent with Section 5.2.3 of the Joint LTCP, incorporate the results of Part IV.D.3.b.iii and iv above,

ii. Based on the post cleaning flow monitoring and H&H model update, the Permittees must provide an analysis that will include final planning, sizing of, and scheduling for the implementation of the structural control facilities (CSO satellite or storage controls) consistent with Section 7.7 of the Joint LTCP. The updated analysis must include detailed planning, design, and construction schedules; and

iii. Revisions to Section 7.7 and Section 8.2, subsections ten (10) and eleven (11) of the Joint LTCP to include all structural control facilities (CSO satellite or storage controls) necessary to capture a minimum of 85% of the annual average combined sewage collected system-wide during wet weather consistent with the FCSO Policy. These revisions to the Implementation Schedule shall be based on the results of Part IV.D.3.c.i above.

d. Only those components of the Joint LTCP listed in Part IV.D.3.c above are subject to amendment through the LTCP Amendment.

In addition, Part IV.G.8.b of the CCMUA Delaware No. 1 WPCF final permit has been modified as follows:

v. Year Five (EDP + 4 years to EDP + 5 years): Complete evaluation of structural control alternatives to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather and submit to the NJDEP for review; Implementation of C-32 controls; Develop Cooper River Water Quality Strategy, submit LTCP Amendment as required by Part IV.D.3.

In addition, Part IV.G.8.b of the City of Camden and Gloucester City final permits has been modified as follows:

v. Year Five (EDP + 4 years to EDP + 5 years): Complete evaluation of structural control alternatives to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather and submit to the NJDEP for review; Continued implementation of GSI and Street Flood Mitigation Programs, submit LTCP Amendment as required by Part IV.D.3.

61. COMMENT: The permit must include a requirement that all CSO controls identified in the LTCP are implemented.

Section IV.B.2.b. of the CSO Control Policy states that the Phase II CSO permits must include "narrative requirements which ensure that the selected CSO controls are implemented, operated and maintained as described in the long-term CSO control plan."

Section IV.B.2.g of the CSO Control Policy states that "[u]nless the permittee can comply with all requirements of the Phase II permit, the NPDES authority should include, in an enforceable mechanism, compliance dates on the fastest practicable schedule for those activities directly related to meeting the requirements of the CWA. For major permittees, the compliance schedule should be placed in a judicial order."

Section V.C.2. of the CSO Control Policy addresses enforcement as well as compliance with Phase II CSO permit requirements and states:

> "The main focus for enforcing compliance with Phase II permits will be to incorporate the long-term CSO control plan through civil judicial action, an administrative order, or other enforceable mechanism requiring compliance with the CWA and imposing a compliance schedule with appropriate milestone dates necessary to implement the plan.
>
> In general, a judicial order is the appropriate mechanism for incorporating the above provisions for Phase II. Administrative orders, however, may be appropriate for permittees whose long-term control plans will take less than five years to complete, and for minors that have complied with the final date of the enforceable order for compliance with the Phase I permit. If necessary, any of the nine minimum controls that have not been implemented by this time should be included in the terms of the judicial order."

To ensure compliance with this Phase II CSO permit requirement in the CSO Control Policy, these judicial or administrative orders, which include the fastest practicable schedules and dates for implementing all of the CSO controls identified in the final LTCP, are expected to be issued in conjunction with the Phase II permit.

Should the permitting authority not issue a judicial or administrative order for compliance in conjunction with this Phase II CSO permit requirement, the permit itself must include a compliance schedule that includes all CSO controls and the corresponding implementation schedule. As required by 40 CFR §122.47(a)(1), compliance schedules included in NPDES permits must "require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA". A compliance schedule longer than one year must include, among other things, interim requirements and dates for their achievement (40 CFR §122.47(a)(3)), and an enforceable final effluent limitation and date for its achievement (CWA section 301(b)(1)(C); 502(17); 40 CFR §122.2, 122.44(d), 122.44(d)(1)(vii)(A), and 122.47(a)(3)).

The example provided below shows how the draft permit may be revised to include a compliance schedule including interim design requirements with corresponding dates, in addition to final project deliverables, to implement the CSO controls.

Exhibit 4-3. Example Permit Language for Implementing Selected CSO Controls

II. Long-Term Control Plan

The permittee shall implement and effectively operate and maintain the CSO controls identified in the long-term control plan. The implementation schedule for those controls shall be as follows:

Activity	Completion Date
[Insert name of activity]	**[insert date]**
Site-Specific Language:	
1. Retention basin	
• Complete design of [named] retention basin.	[insert date]
• Submit construction drawings for [named] retention basin.	[insert date]
• Initiate Construction of [named] retention basin.	[insert date]
• Complete construction of [named] retention basin.	[insert date]
2. [Named street] sewer separation	
• Complete design	[insert date]
• Solicit bids	[insert date]
• Award contracts	[insert date]

NOTE: A compliance schedule exceeding the term of the permit may only be included in the permit if explicitly authorized in the applicable State WQS.

Combined Sewer Overflows Guidance for Permit Writers, - August 1995, EPA 832-B-95-008.
https://www.epa.gov/sites/default/files/2015-10/documents/csopermitwriters_full.pdf

[1]

RESPONSE (61): The Department is aware that interim project deliverables for larger projects are required and are intended to help the permittees stay on schedule. Accordingly, the Department requested that the permittee expand the Implementation Schedule as originally included in the September 2020 LTCP to include engineering,

bid, and construction phases which resulted in submission of a Gantt chart in September 2023 as included in the draft permit Fact Sheets. The first five years of this Implementation Schedule are included in Part IV.G.8 which includes final project deliverable dates.

The Department agrees that completion of the collection system cleaning is a priority. The Department has had multiple discussions and correspondence with the permittees regarding this issue as documented in the Contents of the Administrative Record. The existing permit refers to proper operation and maintenance of the collection system; however, this renewal permit contains clear, specific requirements for annual system cleaning. This renewal permit contains hard dates for completion of the system cleaning where those dates are included in the Implementation Schedule at Part IV.G.8 for the City of Camden and Gloucester City permits. Noncompliance with the date specified within this section may result in enforcement action.

Regarding the issuance of a judicial or administrative order, the Department has determined that a separate enforceable instrument is necessary to formalize and solidify the approvable parts of the September 2020 (revised September 2023) LTCP and the Permittees' obligation to amend the September 2020 (revised September 2023) LTCP. While contemplated by the Federal CSO Control Policy, the Department further believes a separate enforceable instrument is necessary due to the Department's limited approval of the LTCP, the LTCP amendment, and the joint relationship between the Permittees. As such, the Department and the Permittees have executed an Administrative Compliance Agreement dated November 1, 2024. This document is separate from the NJPDES permit but will be issued in conjunction with the permit.

This Administrative Compliance Agreement broadly serves two functions. First, it approves and solidifies the first five years of the implementation schedule as contained in the September 2020 (revised September 2023) LTCP. As noted above in **RESPONSE (60)**, the Department determined that the first five years of the implementation schedule were approvable consistent with the Federal CSO Control Policy. The first five years of the implementation schedule are also implemented in each permit in Part IV.G.8.b. Second, the Administrative Compliance Agreement, along with the permits, solidifies the Permittees' obligation to submit an amended and approvable LTCP within 180 days of the expiration of this permit.
The Department believes it is appropriate to reference both the limited approval of the LTCP and the Administrative Compliance Agreement in the permit. Accordingly, an additional condition has been included in Part II.C.3 of the final permits. Part II.C.3. of the CCMUA Delaware No. 1 WPCF, City of Camden, and Gloucester City permits is as follows:

3. Limited Approval of the LTCP and LTCP Amendment

   a. This renewal permit implements the initial five years of the LTCP Implementation Schedule as established by the permittee and as approved in the Administrative Compliance Agreement executed by the Department and the permittees dated November 1, 2024.

   b. The permittee shall submit an LTCP Amendment as required by Part IV.D.3.

This change affects Part II.C.3 of the final permits.

62. COMMENT: The CSO LTCP implementation schedule, which is required to be re-submitted for approval in the fifth year of this permit, must provide for the implementation of CSO controls "as soon as practicable."

The CSO Control Policy (Section II.C) states that LTCPs are expected to include "both fixed-date project implementation schedules (which may be phased) and a financing plan to design and construct the project as soon as practicable." [1]

RESPONSE (62): The Department agrees that a LTCP Amendment must include a complete implementation schedule that is compliant with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. The Department also agrees that the LTCP Amendment shall include dates for planning, design and construction. Refer to **RESPONSE (60)** for additional requirements regarding a LTCP Amendment.

63. **COMMENT:** We recommend the Department include interim project deliverables in this permit and subsequent permits. [3]

64. **COMMENT:** NJDEP must include interim project deliverables in this permit and subsequent permits. To increase transparency, the permittees should provide NJDEP with project locations and descriptions of each green stormwater infrastructure project. [4]

RESPONSE (63-64): The Department agrees that interim project deliverables are appropriate. The implementation schedule in Part IV.G.8 includes detail for project deliverables such as design and construction as suggested by EPA in **COMMENT (61)**.

Regarding green infrastructure, the permittee is required to report the locations and description of any green infrastructure projects to the Department in order to receive Water Bank funding. CCMUA maintains a project list on its website of existing green infrastructure projects as affiliated with Camden SMART at: http://www.ccmua.org/index.php/green-initiatives/green-infrastructure/rain-gardens-and-other-installations/ and an interactive map at ccmua.org/CGS/GI_Projects_Map.html.

65. **COMMENT:** Will NJDEP and permit holders utilize the 2023 US EPA FCA guidelines to lessen the impact on residents during longer implementation schedules while minimizing financial impacts on lower-income households? [3]

66. **COMMENT:** In February 2023, the US EPA released the final 2023 CWA FCA Guidance, created to help communities "seek ways to minimize financial impacts while ensuring residents also enjoy the benefits of infrastructure investments and improved water quality." This EPA guidance encourages municipalities to integrate stormwater management practices, such as green infrastructure, to reach compliance with the Clean Water Act. To ensure that ratepayers are not affected by the impacts of longer schedules while minimizing financial impacts on lower-income households, we ask that NJDEP and permittees for this permit and subsequent CSO permits follow the US EPA's 2023 CWA FCA Guidance. [4]

RESPONSE (65-66): The Permittees conducted a FCA, required by the 2015 NJPDES CSO permit, outlined in the September 2020 (revised September 2023) LTCP. The purpose of this analysis is to evaluate the financial capability of the Permittees and sewer rate payers to fund future investments in combined sewer infrastructure. As required by the 2015 NJPDES CSO permit, the permittees' financial capability was submitted along with the implementation schedule. To complete the assessment, the permittees utilized the 1997 FCA guidance which outlines the process for determining financial impacts and affordability associated with mitigating CSOs.

The Department acknowledges that US EPA announced updated CWA FCA Guidance on February 1, 2023 (updated in March 2024) which was subsequent to the submission of the LTCP. This guidance outlines strategies for communities to follow to maintain affordable rates while planning investments in water infrastructure essential to protecting our Nation's waters. Specifically, this guidance is intended to be used by municipalities after controls are selected when it is devising specific timeframes for implementation. Refer to https://www.epa.gov/waterfinancecenter/clean-water-act-financial-capability-assessment-guidance. As stated within the EPA document, it is intended to provide clarity to the public regarding existing requirements under the law or agency policies.

These subject NJPDES CSO permits serve to incorporate certain findings of the September 2020 (revised September 2023) LTCP and subsequent revisions which was required based on the Department's issuance of the 2015 NJPDES CSO permits. The LTCP reflects many years of data gathering, evaluation and modeling. At this time, the Department maintains that the analysis done under EPA's 1997 FCA guidance and contained within the LTCPs is sufficient as written.

67. COMMENT: All controls should be prioritized to have the greatest impact on CSOs and local flooding in the shortest timeframe, while maintaining affordability for lower income households. We recommend the Department ensure the shortest timeline possible while still ensuring affordability.

Knowing that connecting this funding to the ability to shorten timelines is so critical, how can the NJDEP actively encourage and help permit holders to take advantage of this? [3]

68. COMMENT: We recognize that it is vital to consider the financial impact on lower-income ratepayers and overburdened households. We recommend that a review of the permit holder's financial capability analysis, including interest and inflation rates and related calculations, be incorporated into the permit to clarify how affordability for lower-income households is reflected.

This permit should not extend the timeline for requirements to reduce rate increases, as this will extend the time the community faces environmental and public health issues. We ask permittees to shorten the project timelines so that the project benefits are demonstrated within ten years. Given that the LTCPs were crafted before the availability of federal water infrastructure funding through the Bipartisan Infrastructure Law and American Rescue Plan Act, we suggest that NJDEP, the City of Camden, Gloucester City, and CCMUA revisit financing of these critical projects and find ways to shorten the timeline while maintaining affordability for ratepayers. This once-in-a-generation funding opportunity can reduce the debt the permittees would need to take on to shorten the timeline and could limit the cost for ratepayers. [4]

69. COMMENT: Affordability should be maintained so ratepayers are not facing the burden of increased rates. [11]

RESPONSE (67-69): Practicability and affordability must be balanced with reducing CSOs and CSO-related flooding as quickly as possible. The development and implementation of CSO projects requires both the permitting authority and the permittee to carefully balance a number of considerations to implement the LTCP as soon as practicable and ultimately achieve compliance with the CWA. In developing an implementation schedule, the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C directs permitting authorities and permittees to consider, among other things, use impairment, financial capability, funding availability, and user rates and fee structures.

As more fully discussed in **RESPONSE (54-55)**, there are funding opportunities available through the New Jersey Water Bank. As noted in previous responses, the Department agrees that all funding opportunities should be pursued and has shared information regarding available funding and the EPA technical assistance program with CCMUA, the City of Camden, and Gloucester City. Low-cost financing is available for the design, construction, and implementation of projects that help to protect, maintain and improve water quality. Projects eligible for financing include a wide variety of wastewater treatment works, stormwater management, drinking water systems, land acquisition, and landfill activities. However, there is only a limited amount of funding available, and costs above and beyond available funding must be shouldered by the permittee. Projects costs, regardless of whether they are financed through the New Jersey Water Bank, impact user rates and fee structures, and the amount of debt which a given permitting authority can take on is prescribed by its specific financial capability. Shortening an implementation schedule will lead to costs being spread out over a correspondingly shorter period, generally resulting in higher user rates. Again, the permittee, based on its specific circumstances, must develop a schedule compliant with the CWA which balances the competing interests of shorter timeframes and lower user rates.

70. COMMENT: Can NJDEP require that permittees not only conduct the standard calculations, but also an alternative calculation considering new federal funding that would reduce the ratepayer burden and accelerate environmental and community benefits? [3]

RESPONSE (70): The Federal CSO Control Policy requires completion of an FCA analysis as part of the LTCP. The Department notes that the permittee submitted its LTCP in September 2020 and, as such, evaluated its financial capability under EPA's 1997 FCA guidance. It is unclear what is intended regarding the reference to an alternative calculation as stated in this comment.

71. **COMMENT:** NJDEP should encourage permittees to collaboratively apply for Water Bank low-interest loans to distribute the project cost among ratepayers. By spreading the cost among CCMUA ratepayers instead of just the City of Camden, the 15-year project timeline could be reduced while ensuring affordability to ratepayers. The Department should require the permittees to engage community members in discussions to decide innovative funding strategies. [3]

72. **COMMENT:** NJDEP should encourage permittees to collaboratively apply for Water Bank funding and financing to distribute the project cost among CCMUA ratepayers. By distributing the cost among CCMUA ratepayers instead of just the City of Camden or Gloucester City, the 15-year project timeline could be significantly reduced while ensuring affordability. NJDEP should require permittees to thoroughly review funding alternatives, such as a stormwater utility and Water Bank funding and financing, that will shorten project timelines while ensuring affordability to ratepayers. [4]

73. **COMMENT:** The affordability of this is a huge burden. The reality is that there's money out there to pay for this. There's a clause in American Rescue Plan Act right now that says that if there's improvements in your LTCP for a CSO community you can qualify for up to 80% principal forgiveness. That's not the only federal opportunity out there. There are a lot of different sources out there to pay for this and to get this done for our residents. [13]

RESPONSE (71-73): CCMUA is the regional wastewater treatment authority of Camden County, New Jersey, providing wastewater treatment to a service area of 226 square miles and a population of about 500,000 people in 36 municipalities. The City of Camden has a population of about 77,344 (2010 Census) and Gloucester City has a population of about 11,500 (2010 Census). CCMUA provides regional wastewater conveyance and treatment services through 135 miles of interceptor sewers, 27 pump stations and the WPCF, which is designed to treat 80 million gallons per day (MGD) with a wet weather capacity of 185 MGD.

The Department agrees that all innovative funding strategies should be considered. The Department further agrees that funding may be a topic of CSO Supplemental Team meetings to engage community members. As noted in previous comments, funding is available through the New Jersey Water Bank and EPA provides free technical assistance. However, user fees and rate structures are outside the purview of the NJPDES regulations and therefore outside the terms of the permit. Refer to **RESPONSE (76-82)** regarding the Department's response to comments suggesting that the costs be distributed over the CCMUA service area. Refer to **RESPONSE (60)** and **RESPONSE (61)** regarding the implementation schedule.

74. **COMMENT:** We urge all parties, including Camden County policymakers, CCMUA, and Gloucester City officials, to come together and design a collaborative plan. CCMUA is eager to partner on funding and design. We urge the NJDEP to bring the parties together. Shortening the timeframe to five to ten years may be within arms' reach. That means fewer years of combined sewage backups in Camden's basements, streets, and parks, and raw sewage overflows into Cooper River, Delaware River, and Newton Creek. [2]

75. **COMMENT:** The service agreement between CCMUA and the 37 municipalities states that CCMUA is allowed to do this work for Camden and that was how CCMUA was able to pay for earlier improvements. My hope would be that CCMUA could return to the original policy and undertake the remaining Camden CSO work itself thereby reducing the cost burden and would allow for significant acceleration of the work. [10]

RESPONSE (74-75): CCMUA provides wholesale wastewater conveyance and treatment to Camden, Gloucester City and the other municipalities within its service area under the terms of the Service Agreement of December 1986 with its participant municipalities as stated in the September 2020 (revised September 2023) LTCP. Under the terms of the Service Agreement the participant municipalities are individually responsible for the operation, maintenance, expansion and replacement of their local collection systems.

The permittees did collaborate on several stages leading up to the LTCP submission including the joint preparation of the September 2020 (revised September 2023) LTCP which is a plan to jointly address CSOs to comply with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. As noted within the Fact Sheet, CCMUA and Camden undertook a cleaning and dredging program since many of Camden's outfalls were submerged and dredging

was required to regain full hydraulic capacities. CCMUA contracted for the dredging of nine outfalls and the City of Camden undertook the cleaning of twelve of the twenty-two outfalls.

The Department agrees that the reduction of CSOs is of the utmost priority. However, the City of Camden and Gloucester City are required to ensure that this work is completed either independently or through a shared service agreement. Any shared service agreement is between the respective Cities and CCMUA and the Department is not a participant. In addition, the Department does not have the authority to force CCMUA to complete this work for the City of Camden and Gloucester City through a shared service agreement.

Refer to **RESPONSE (76-82)** regarding suggestions to spread the costs over the CCMUA service area.

76. COMMENT: In the example of Camden City, all CCMUA ratepayers, including Camden City, paid for the sewer lines and pumping stations that convey sewage from the suburban communities into Camden. We recommend the same approach for the Gloucester City combined sewer system. Reducing the cost per ratepayer and spreading it over a population that has a much higher median household income allows for the project to be completed much more quickly under the EPA's affordability guidelines. CCMUA could be the fiscal sponsor or collaborator when Gloucester City applies for funding. This arrangement could allow for a more equitable allocation of the cost of the projects in a manner permitted in the CCMUA Service Agreement. [2]

77. COMMENT: Cost, and how that is distributed, is an issue for me. CCMUA is a shared asset for all of the ratepayers of the system. Cost of mitigation/elimination of CSO outfalls should be shared by every ratepayer. It is clearly equitable for costs to be spread out over all of CCMUA's service area as was done for upgrades to the regional collection system. Spreading these costs would result in a much lower cost per rate payer, given Camden's much lower median household income compared to the county.

Spreading the cost out over the entire CCMUA rate base, as was done with the regional sewer system components connecting the other towns to the CCMUA system, is clearly the equitable thing to do. If Camden residents have participated in the cost to connect suburban communities to the regional sewer system and convey their sewage to Camden, then it is equally equitable that suburban ratepayers help to pay for the upgrades to the combined sewer system. In addition, this would result in a much lower cost per ratepayer and, given Camden's much lower median household income, as compared to Camden County's overall median household income.

Reducing the cost per ratepayer and spreading it over a population that has a much higher median household income allows for the project to be completed much more quickly under the EPA's affordability guidelines. I believe that the timeframe could be reduced from 15 years to 5 years, meaning 10 fewer years of combined sewage backups in Camden's basements, streets and parks and raw sewage overflows into the Cooper, Delaware and Newton Creek. [5]

78. COMMENT: Will there be funding for these projects? We are very much in favor of efforts to mitigate this issue. 15 years is a long time for these projects to be completed, especially while residents have been living with flooding for many decades. We would like to see that shortened and adequate funding is a primary factor in determining how long it will take to complete the work. My understanding is that the City of Camden is responsible for the funding. However, CCMUA services the entire county. Is it possible for CCMUA to share the costs with the city? [7]

79. COMMENT: It is my understanding that there has been a shift in policy for the cost onto Camden residents. I see this as an Environmental Justice problem because Camden residents have less resources and the benefits of a clean river extend beyond Camden. [8]

80. COMMENT: Affordability is a major constraint especially on the City of Camden. Would CCMUA or NJDEP help identify other methods of financing these projects like leveraging federal funding? My understanding of the CSO plan is that previously the cost was going to be county wide as opposed to currently where it looks like the cost burden is falling on the City of Camden. So the consequence of the change is that the entire cost falls on the City of Camden as opposed to the county. As a result, when the EPA affordability calculation is applied to Camden's 75,000 residents with a lower income as opposed to Camden County's half a million with a higher income. The plan would

then be finished in 15 years in order to be affordable instead of the five years as originally planned. So this puts more of a cost burden on the environmental justice community of Camden and there will be an additional ten years of combined sewage overflows and flooding. [10]

81. **COMMENT:** Fifteen years is a long time to be waiting for something to be done in these high flood zone areas. You have back up overflow coming from Pennsauken and parts of Gloucester that's coming into Camden City. I hope that you guys work on the timeline and the source of funding so the burden is not on Camden residents to pay for other surrounding municipalities contributions to Camden again.

My concern is the burden of cost for the LTCP, timelines and future resident participation. CCMUA and the state of New Jersey must find equitable ways to finance the LTCP so it doesn't fall on the local residents. CCMUA takes in 36 municipalities wastewater into its treatment plan in Camden. Pennsauken Township has contributed a lot of sewage into Camden City but isn't part of the LTCP. It had its CSO project paid for by a 80% forgiveness grant. Cost could be the reason behind Gloucester City's lack of action on its project. The state must encourage Gloucester City to start its project if possible. This delay will continue to cause unhealthy environmental conditions in these communities when it rains heavy. The timelines to complete the LTCP will extend longer than it should. Corporations and developers that have contributed to the overflow problem should be paying too. [6]

82. **COMMENT:** Historically, CCMUA has been success story working collectively as a county. This is not Camden City MUA, this is Camden County MUA. One of the concerns here is the equity of the plan. And the equity is the entire cost is not being distributed among the 37 towns of CCMUA but being distributed to the City of Camden itself. If you look at EPA affordability calculation for Camden residents you are going to have a much longer calculation. Should not being put burden of clean water on Camden residents because the waste is not solely coming from Camden but is coming from the County. Looking at a plan completion that will reach completion close to the 2040s. Our strongest recommendation is that the analysis of timeline should be expanded to include the entire County. Looking at different affordability calculation and much faster adoption. When we talk about equity and we talk about having the Cooper River and back channel to the lower Delaware River being fishable and swimmable. Can't have that kind of equity on a 15 year timeline and putting on backs of Camden City residents. Cost should be distributed across the CCMUA. That is why CCMUA has been so successful with its clean up efforts because of the distributed costs. That is a huge concern. I think you could triple the speed of the plan and have a plan done in 5 years.

We know that affordability is a major constraint and want to see the cost spread out through the entire county because the benefits are across the entire county. Benefits are obvious for those that recreate near the Cooper and back channel. Cannot recreate in waters as primary contact without fixing CSOs. [14]

RESPONSE (76-82): There are multiple issues raised in these comments which includes suggestions for cost sharing across the CCMUA service area, funding, affordability, and the timeline for completion of CSO control measures. The Department has addressed each issue below.

The Department acknowledges that several commenters have suggested that the cost of CSO control measures be spread amongst the entire CCMUA service area. However, the Department maintains that user fees and rate structures are outside the purview of the NJPDES regulations and therefore outside the terms of the permit. As such, concerns regarding cost distribution should be directed to the appropriate utilities authorities. As identified in **RESPONSE (74-75)**, the permittees can work together and enter into a shared service agreement. However, any shared service agreement is between the respective Cities and CCMUA and the Department is not a participant.

Several commenters refer to the EPA affordability calculation which appears to be a reference to EPA's FCA Guidance. As required by the 2015 NJPDES CSO permit, the Permittees conducted a FCA which is outlined in the September 2020 LTCP. The permittee's financial capability includes median household income, total annual wastewater and CSO control costs per household as a percent of median household income, overall net debt as a percent of full market property value, property tax revenues as a percent of full market property value, property tax collection rate, unemployment, and bond rating. The purpose of this analysis is to evaluate the financial capability of the Permittees and sewer rate payers to fund future investments in combined sewer infrastructure in order to

develop the implementation schedule. The FCA Guidance describes the financial information and formulas the agency uses to assess a community's financial resources to implement control measures and timeframes. The FCA Guidance applies to the municipalities that own/operate CSOs. Accordingly, the permittees completed the FCA Guidance for their respective municipalities. The FCA Guidance and Federal CSO Control Policy do not direct that affordability calculations must be completed for the entire sewer service area (i.e., Camden County). Refer to **RESPONSE (65-66)**, and **RESPONSE (67-69)** for more information regarding financial capability.

Regarding funding, and as discussed in **RESPONSE (54-55)** and **RESPONSE (56)**, there are funding opportunities available through the New Jersey Water Bank. Of course, there is only a limited amount of funding available, and costs above and beyond available funding must be shouldered by the permittee. Projects costs, regardless of whether they are financed through the New Jersey Water Bank, impact user rates and fee structures, and the amount of debt which a given permitting authority can take on is prescribed by its specific financial capability. Of course, shortening an implementation schedule will lead to costs being spread out over a correspondingly shorter period, generally resulting in higher user rates. Similarly, a recalculation of an FCA or review of funding alternatives would necessitate extending the timeline to approve an LTCP. Again, the permittee, based on its specific circumstances, must develop a schedule compliant with the CWA which balances the completing interests. Similarly, the permittees submitted a FCA with its September 2020 LTCP, which the Department has reviewed and maintains that this analysis is acceptable for the purposes of these NJPDES CSO permits.

Refer to **RESPONSE (60)** and **RESPONSE (61)** for more information regarding the Implementation Schedule. Refer to **RESPONSE (6)** and **RESPONSE (7)** for more information regarding recreation. Refer to **RESPONSE (24-27)** for more information regarding flooding. Refer to **RESPONSE (85-88)** for additional information regarding the sewer separation project for Pennsauken.

83. COMMENT: Since CCMUA is no longer completing the remaining work on the CSO system in the City of Camden and it's the responsibility of the City of Camden, the plan will not be finished in fifteen years rather than five years. In doing that, the Environmental Justice burden on the community will remain high on the community versus the original five years as planned. How can the public be involved in these decisions? What would it take for CCMUA to return to the original policy of CCMUA undertaking the remaining Camden CSO work, thereby reducing the cost/burden on residents and allowing for faster acceleration of the work. Is there a role the NJDEP can play in encouraging and working with CCMUA to return to the original policy and undertake the City of Camden's work. [2]

RESPONSE (83): This response references a plan for an implementation schedule to be finished in five years rather than fifteen years. It is unclear where the value of five years came from as this timeframe has not been included in the September 2020 LTCP and subsequent revisions. The Department agrees that CSO controls should be prioritized to minimize CSO volume being discharged to the waterways. As described in previous responses, the Implementation Schedule contained in the revised LTCP dated September 2023 specifies a 15-year schedule. Refer to **RESPONSE (60)** regarding the required submission of an LTCP Amendment.

Refer to **RESPONSE (40-42)** and **RESPONSE (46)** for information regarding public engagement. Refer to **RESPONSE (74-75)** for information regarding any shared service agreements between the permittees.

84. COMMENT: I would request that anyone who has discussed having a plan accomplished in five years and/or that CCMUA was strictly responsible for the costs to share that documentation concerning commitments and promises with me. All of the publications that have been sent to the NJDEP prior to the last iteration have had a schedule that went out for the next 20 years and never commented on which permittees would pay for the costs. Those documents and publications were sent to NJDEP in 2015 and 2016 and it is only within the last several months that the schedule was shortened to be within 15 years instead of the 20 plus years. [12]

RESPONSE (84): The Department acknowledges CCMUA's statement. As noted in this comment, the September 2020 LTCP specified a 22-year implementation schedule for the purposes of the FCA and did not contain a 5-year schedule. The Implementation Schedule contained in the revised LTCP dated September 2023 specifies a 15-year

schedule. Refer to **RESPONSE (74-75)** and **RESPONSE (60)** and **RESPONSE (61)** for more information regarding these topics.

85. **COMMENT:** The LTCP anticipates being at 78% capture by 2028 but won't be at 85% capture until 2034. They are proposing to evaluate the performance of the system for further design and evaluation to reach 85% capture which would mostly be from storage tanks. One recommendation to NJDEP would be to move up the evaluation earlier and consider staggering the evaluation and planning for the various tanks. This would allow water quality benefits sooner. [10]

86. **COMMENT:** Fifteen years is a long time. A lot of the kids that are speaking here today will be grown and gone in fifteen years. Let's try and make it so that the people that are living in Camden now can see these benefits. There's a lot of federal money out there now. I would like to see the State supporting Camden now. [13]

87. **COMMENT:** Look at the full scope of plan and we are looking out to 2038. There are major elements and that partial implementation schedule appear in all 3 permits. The strategy is to wait and see how the early elements of the plan handle the CSO overflow capture and then evaluate performance for further design and construction. That makes sense on paper. The LTCP anticipates 75% capture by the end of the decade. But final elements of the plan would not begin construction until a decade from now. Mostly storage tanks which are expensive. Should move up the evaluation earlier and stagger evaluation and planning and design and construction. Because if you find something that works it would behoove the Department as well as the City and the water quality to get those benefits sooner. [14]

88. **COMMENT:** We recommend the Department work with the permit holder to leverage their expertise and support to accelerate the implementation of the sewer separation projects. This is another avenue for shortening timelines toward achieving the minimum 85% capture goal. If funding is required to support this, encourage the permit holder to take advantage of federal funding from NJ Water Bank, etc., to get projects underway sooner. [3]

RESPONSE (85-88): The Department agrees that CSO controls should be prioritized to minimize CSO volume being discharged to the waterways. As described in the Fact Sheets, the revised LTCP dated September 2023 specifies a 15-year schedule. The selection of CSO control strategies is left to the permittees consistent with the Federal CSO Control Policy. The schedule contains a number of significant CSO control measures that do require time to plan, design and construct. Refer to **RESPONSE (60)** for additional information regarding the required submission of an LTCP Amendment.

Sewer separation is a control strategy that can increase the capacity of the CSS by removing stormwater flows. The implementation schedule required for the CCMUA permit includes a significant sewer separation project to remove combined sewage flow from Pennsauken Township. Specifically, CCMUA, the City of Camden and Pennsauken Township are designing and implementing the separation of combined sewer neighborhoods in Pennsauken as well as other improvements that will reduce street flooding in the neighboring Cramer Hill section of Camden. This project will result in the reduction of wet weather flows from Pennsauken Township into the Camden combined sewer system area tributary to the CCMUA C32 regulator, thereby reducing combined sewer overflows. By reducing wet weather flows currently transported through the two Pennsauken connections other than the Pennsauken interceptor sewer it will also increase the wet weather flow capacity for Camden combined sewage at the Baldwins Run pump station. As described in the September 2023 revised LTCP, design work for the separation of combined sewered areas of Pennsauken Township is complete and pending construction permit approval. Most recently, CCMUA submitted design information to the Department where the project costs are approximately $35 million. This significant project occurs at the beginning of the implementation schedule and will ensure that the benefits of reductions in CSO volume are realized in the short term.

Refer to **RESPONSE (24-27)** for more information regarding flooding.

89. **COMMENT:** We recommend the Department encourage the permittees to shorten project timelines to achieve 85% capture, as prolonged timelines will further impair the Delaware River, the Cooper River, and Newton Creek. NJDEP

should encourage permittees to reduce the 2038 project completion timeline in the permit so as not to prolong and worsen water quality impairments. [3] [4]

RESPONSE (89): CSO outfalls in the City of Camden discharge to the Delaware River, Cooper River and Newton Creek. CSO outfalls owned/operated by Gloucester City discharge to the Delaware River. CCMUA discharges its wastewater discharge and CSO discharge to the Delaware River. Refer to **RESPONSE (60)** and **RESPONSE (61)** regarding the implementation schedule.

The Department's Bureau of Environmental Analysis, Restoration and Standards is responsible for conducting water quality assessments of the state's surface waters which includes the identification of water quality impairments. The Department employs an integrated approach to assessing water quality by compiling a vast amount of water monitoring data and related information collected by numerous sources throughout the State and evaluating it to determine the health of New Jersey's surface waters. This integrated water quality assessment process is used to determine if water quality conditions have changed over time; if water quality standards are met and if designated uses, such as recreation and water supply, are fully supported; to identify causes and sources of water quality impairment; and to develop restoration strategies for impaired waters and protection strategies for healthy waters. Additional information is available at https://dep.nj.gov/wms/bears/water-quality-assessment/#wqa.

90. **COMMENT:** Can these permittees go beyond the 85% capture goal and get closer to 100% capture as part of the LTCP? [2]

RESPONSE (90): The permittees have selected the Presumption Approach which is stated at Part IV.G.4.a.ii in the permits. The minimum percent capture requirement is 85% in accordance with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. However, permittees may implement CSO control measures that surpass 85% wet weather capture.

91. **COMMENT:** We recommend the Department require permittees to prioritize controls and projects based on the impact on CSO volume reduction and water quality improvements, including well-designed green infrastructure. Ensure that green infrastructure is implemented as much as possible, wherever possible, and as quickly as possible. [3]

92. **COMMENT:** The permittees should work collaboratively across municipalities, with community members and community-based organizations to identify locations for green infrastructure projects to maximize community benefits. Green infrastructure can be a strong educational tool to increase public awareness of water quality and flooding issues. Specifically, the Camden SMART (Stormwater Management and Response Training) initiative created in partnership with the City of Camden, CCMUA, NJDEP, Rutgers Cooperative Extension, Camden Community Initiative, and the New Jersey Tree Foundation should work collaboratively with Gloucester City. There is an opportunity to expand green infrastructure and flood mitigation projects across municipal borders.

NJDEP must ensure that the benefits from green infrastructure and flood mitigation projects included in these permits are maximized by accelerating timelines and creating maintenance plans. NJDEP should prioritize controls and projects based on the impact of CSO volume reduction and water quality improvements, including well-designed green infrastructure. [4] [11]

RESPONSE (91-92): The Department acknowledges that green infrastructure can be utilized to manage stormwater while simultaneously providing environmental, social, and other co-benefits. These co-benefits can include a reduction in urban heat island effect, decreased energy use, removal of pollutants from the air through greater utilization of vegetation, beautification of public spaces, and increased property values. The Department has long supported the use of green infrastructure to assist with CSO reduction and released a document in January 2018 entitled "Evaluating Green Infrastructure: A Combined Sewer Overflow Control Alternative for Long Term Control Plans" and available at https://dep.nj.gov/dwq/combined-sewer-overflow/cso-permittees/#resources.

As noted within the Fact Sheets for CCMUA and the City of Camden, the permittees have partnerships with Camden SMART and PowerCorps Camden which focus on green infrastructure. The Camden SMART Initiative, formed in

2011, is a voluntary collaboration among the City of Camden, CCMUA, Cooper's Ferry Partnership, Rutgers Cooperative Extension Water Resources Program, New Jersey Tree Foundation and NJDEP to protect human health, improve conditions for economic development, improve water quality and enhance the quality of life for the residents of Camden. PowerCorps Camden is an AmeriCorps direct service program focused on improving Green Infrastructure in the City of Camden. In partnership with CCMUA and the City of Camden under the National Governor and Mayor's Initiative, the Center for Family Services launched the program in December 2015. Through projects focused on Camden's green infrastructure network, PowerCorps members play a key role in maintaining green infrastructure installations including rain gardens, city and county parks, vacant lots, and stormwater inlets that comprise Camden City's network. The service projects that PowerCorps Camden members take part in are often in collaboration with CCMUA, the Camden SMART partners, and many of the Camden Collaborative Initiative partners.

93. COMMENT: Regarding green infrastructure, we commend CCMUA for the Green Infrastructure projects they have incorporated in Camden City. However, it does not seem that many meaningful green infrastructure projects are being considered in Gloucester City. Please encourage the permit holder to re-evaluate opportunities to include GI in Gloucester City. The permittees should work collaboratively with community members and community-based organizations across municipalities to identify locations for green infrastructure projects to maximize community benefits. Green infrastructure can be a solid educational tool to increase public awareness of water quality and flooding issues.

Moreover, with so many gray infrastructure projects being implemented, there is an excellent opportunity to evaluate the installation of GI simultaneously, thereby achieving economies of scale.

We also encourage the permittees to monitor and track the impact of green infrastructure projects on CSOs to ensure they are correctly installed and maintained. [2]

94. COMMENT: Permittees should work collaboratively across municipalities because stormwater doesn't just follow municipal boundaries. We ask that CCMUA, the City of Camden, and Gloucester City work collaboratively on green infrastructure projects and provide updates on the projects they are working on. [11]

RESPONSE (93-94): The 2015 NJPDES CSO permit required the three Permittees to work collaboratively through the three stages of LTCP development including the submission of the Development and Evaluation of Alternatives Report (DEAR) dated September 6, 2019 (available at https://www.nj.gov/dep/dwq/cso-ltcpsubmittals.htm). The objective of the DEAR was to provide a comprehensive evaluation of CSO control alternatives including gray and green infrastructure. The DEAR discussed the phased implementation of green stormwater infrastructure projects throughout the report. Subsequent to the DEAR, the Permittees were required to work collaboratively to create and submit an LTCP which included Implementation Schedules consisting of projects and timelines. As part of that requirement, the Permittees were required to evaluate the practical and technical feasibility of a range of CSO control alternatives that met the goals of the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

The selection of CSO control strategies was left to the permittees consistent with the Federal CSO Control Policy. As noted within the Gloucester City draft permit Fact Sheet, green infrastructure is a component of the control strategy within the LTCP due to the environmental, community, aesthetic, economic and community health benefits intrinsic in green stormwater infrastructure. As also noted within the Fact Sheets of all three permits, CCMUA and the Cities had proposed the establishment of a framework for the implementation of green stormwater infrastructure that would formalize, expand upon and support the current efforts of groups such as the Camden SMART initiative. The intent is to implement green stormwater infrastructure whenever feasible in coordination with development and redevelopment projects; transportation and related public works (e.g. road work); renewal and replacement projects (collection system or other work requiring street openings); and opportunities for neighborhood enhancements (e.g. new or improved neighborhood parks or playgrounds).

The Department recognizes the importance of providing robust funding opportunities for CSO projects, including green infrastructure. Green infrastructure projects are eligible for funding through the New Jersey Water Bank that

offers a variety of funding packages with low interest loans and principal forgiveness, and additional resources for disadvantaged communities.

Regarding tracking and monitoring, green infrastructure can absorb stormwater and thereby contribute to reductions in volume of CSOs. Any such reductions from completed green infrastructure projects can be assessed through a rerun of the H&H model.

The Department agrees that the operation and maintenance of green infrastructure is integral to their proper function. Operation and maintenance of CSO control measures, such as green infrastructure, is addressed in a separate permit condition at Part IV.G.6 as described in **RESPONSE (22-23)**.

95. COMMENT: NJDEP should provide technical assistance for permittees to conduct a green infrastructure feasibility study to determine locations with a large amount of impervious cover that will benefit from implementing green infrastructure projects to mitigate flooding. For example, the Department should provide mapping assistance and Geographic Information System (GIS) licenses to permittees to identify locations for green infrastructure projects. [4]

RESPONSE (95): The Department has resources available for technical assistance and GIS licenses. Specifically, the Department offers free to use licenses to permittees to allow mapping of stormwater infrastructure. This mapping exercise could help to determine where to best place green infrastructure based on where other infrastructure exists. The Department also has a tool available to assist with analyzing impervious areas and drainage areas that can be found at https://dep.nj.gov/njpdes-stormwater/municipal-stormwater-regulation-program/watershed-improvement-plan-guidance/. This is an ArcGIS Online based tool that allows the user to overlay features such as impervious area, stormwater infrastructure and other stormwater data.

96. COMMENT: The City of Camden and fellow permittees should be encouraged to explore implementation opportunities for Complete and Green Streets. For reference, the New Jersey Department of Transportation's (NJDOT) Complete & Green Streets for All: Model Complete Streets Policy and Guide outlines policy implementation strategies and checklists to enable the implementation of complete and green streets. We hope permittees will conduct LTCPs simultaneously with green streets to reduce the overall cost and impact on community members during construction. [2]

97. COMMENT: We recommend the Department provide additional guidance for permittees to ensure that high-impact green infrastructure is considered as part of gray infrastructure projects to address both solutions simultaneously and achieve economies of scale, while ensuring affordability to ratepayers. The City of Camden and fellow permittees should be encouraged to explore Complete and Green Streets implementation opportunities. For reference, the New Jersey Department of Transportation's Complete & Green Streets for All: Model Complete Streets Policy and Guide outlines policy implementation strategies and checklists to enable the implementation of complete and green streets. We hope permittees will conduct LTCPs simultaneously with green streets to reduce the overall cost and impact on community members during construction. [3]

98. COMMENT: The Department should provide additional guidance for permittees, particularly Gloucester City, to ensure that high-impact green infrastructure is considered part of gray infrastructure projects to address both solutions simultaneously and achieve economies of scale while ensuring affordability to ratepayers. The City of Camden and fellow permittees should be encouraged to explore opportunities for Complete and Green Streets implementation. For reference, the New Jersey Department of Transportation's (NJDOT) Complete & Green Streets for All: Model Complete Streets Policy and Guide outlines policy implementation strategies and checklists to enable the implementation of complete and green streets. We hope permittees will implement their LTCPs simultaneously with green streets to reduce the overall cost and impact on community members during construction. [4] [11]

RESPONSE (96-98): The Department is aware of the document entitled "Complete & Green Streets for All" which is a model policy and guide developed by the New Jersey Department of Transportation. As described in the document, "Complete Streets" are designed and operated with the safety, mobility, and accessibility needs of users of all ages and abilities in mind. Although the contents of this document are largely unrelated to CSO issues, there

are references to green infrastructure within the document that largely point to the New Jersey Future website as entitled "New Jersey Green Infrastructure Municipal Toolkit" (https://gitoolkit.njfuture.org/). The Department supports the use of green infrastructure and available tools; however, the selection of CSO control strategies is left to the permittees consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C as part of the already submitted LTCP.

99. **COMMENT:** We recommend the Department require the permittees to review the projected CSO reductions from the municipal Green Infrastructure projects and track and report on the climate change impact that they will have on CSO volume. [3]

100. **COMMENT:** NJDEP should require that the permittees monitor and track the impact of green infrastructure projects implemented by the permittees on CSOs. The Department should ask that permittees provide additional information on the status of green infrastructure and flood mitigation projects included in the permit, including Camden SMART projects and the Camden Rain Barrel Installation Program. [4]

RESPONSE (99-100): All green infrastructure measures serve to free up capacity in the collection system. There is no requirement to monitor and track the efficacy of any particular gray or green control alternative. However, note that the final permits contain "specific requirements to track and assess compliance with the attainment of wet weather percent capture." in Part IV.G.4.c and d in achieving the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C requirements. Also refer to Part IV.G.9.e. A rerun of the H&H model as part of the LTCP Amendment will document any changes to wet weather percent capture as a result of any completed green infrastructure projects.

101. **COMMENT:** The permit should require that implementation of the LTCP, for either gray or green infrastructure, be accomplished in a manner that minimizes impact to the host community, especially during construction activities. This includes but is not limited to obeying local ordinances, dust, noise, traffic control, etc. We recommend that priority be given to the green and gray projects that have the fastest and greatest impact on CSO reduction and water quality improvement. [3]

RESPONSE (101): All local ordinances, which may include those related to dust, noise and traffic control, are required to be obeyed at all times. This is noted in Part II.B.1.a which states "The issuance of this permit shall not be considered as a waiver of any applicable federal, state, and local rules, regulations and ordinances."

102. **COMMENT:** We recommend the Department require the permittee to conduct water quality sampling near CSO outfalls during the implementation of LTCP projects and during wet weather events that generate overflows. This could further protect the public from the effects of CSO events by maintaining transparency and conducting outreach around water quality and sampling. Due to the increased risks in the 24–72 hours after a CSO event, this information should be communicated to recreational users of the impacted waterways in a timely manner. We also recommend the Department utilize water quality and precipitation data to look at opportunities to improve protections on the waterbody, such as a Use Attainability Analysis. [3]

RESPONSE (102): Ambient water quality sampling around CSO outfalls is a required component of the Compliance Monitoring Program (CMP) as contained in the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. Submission of a CMP Report was required by the March 12, 2015 NJPDES CSO permit. The CMP Report generated sufficient data to establish existing ambient water quality conditions for pathogens in the CSO receiving waters. In review of the report, the Department determined that the data collection effort, in concert with the ongoing Delaware River Basin Commission (DRBC) Boat Run Program, provided sufficient information for the purposes of data characterization for baseline and existing conditions.

The CMP is a continued requirement in these renewal permits consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. The portion of the CMP conducted during and after implementation of the LTCP is referred to as the Post Construction Compliance Monitoring Plan (PCCMP). The PCCMP will provide data to evaluate the effectiveness of the CSO control measures constructed during and after the implementation of the LTCP

including a monitoring schedule, regulator monitoring locations, receiving water sampling locations, and rain gauge locations.

The NJPDES CSO permits require collection of ambient sampling utilizing the DRBC Boat Run Program for ongoing PCCMP data given that this is a comprehensive and longstanding data set. The DRBC has sampled the mainstem of the Delaware River between Trenton and Delaware Bay since 1967. Each year, DRBC contracts with the Delaware Dept. of Natural Resources and Environmental Control (DNREC) to collect surface water samples in the Delaware Estuary, from the head of tide at Trenton, N.J. to the mouth of the Delaware Bay including the Delaware River, Cooper River, and Newton Creek. Samples are collected at 22 stations to manage water quality and ensure that criteria are being met. Monitoring is performed monthly from April through October. There are several sampling locations upstream and downstream of the CSO outfalls of CCMUA, the City of Camden and Gloucester City. One sampling location, located at the Ben Franklin Bridge, is between the City of Camden's 018A Front Street outfall to the north and 016A Cooper Street outfall to the south. Given the locations of these sampling points and their history, the Department maintains that the outfalls are sufficiently monitored and water quality is properly characterized. Additional information is available at https://www.nj.gov/drbc/programs/quality/boat-run_explorer-app.html.

A Use Attainability Analysis, as referenced in the comment, refers to a structured scientific assessment of the factors affecting the attainment of uses specified in Section 101(a)(2) of the Clean Water Act. This is separate and distinct from the CMP contained in the NJPDES CSO permits and is outside the scope of this permit. Data collected as part of this process may be utilized to inform NJ Surface Water Quality Standards (SWQS) at N.J.A.C. 7:9B; however, it would be premature to determine any effect that may have given that the PCCMP is not complete.

103. COMMENT: EPA supports the requirements of the PCCMP. In particular, requiring post construction compliance monitoring every 5 years to assess the performance and effectiveness of CSO controls as they are implemented, including an assessment as to whether the control is performing as expected and achieving the required interim increase in percent capture of wet weather flows, as well as the final capture of no less than 85%. However, EPA recommends that interim requirements/milestones for capture percentage of combined wet weather flows be identified and included in the fact sheet and permit. EPA also recommends that the permittee be required to submit its water quality compliance monitoring plan to the NJDEP for review and approval prior to implementation. [1]

RESPONSE (103): Extensive Post Construction Compliance Monitoring Plan requirements are included in Part IV.G.9 of the permit as noted in this comment. This requirement already specifies a time interval of five years for submission of an Interim PCCMP Report as shown in Part IV.G.9.e:

> e. The permittee shall conduct interim post-construction compliance monitoring every five years as established in the LTCP. Such monitoring shall assess the projects and implementation schedule including attainment of percent capture milestones set forth in the LTCP. These projects shall be monitored and analyzed to determine if they are operating as intended and whether the implementation of projects under the LTCP are achieving the interim required percent capture milestones set forth in the LTCP. If the PCCMP determines that the implemented CSO control measures do not meet the interim required percent capture or the final required percent criteria, an evaluation must be included in the Adaptive Management Plan in accordance with H. below.

Both the Interim PCCMP Report and the Final PCCMP Report are required to be submitted to the Department and will include modeling results regarding wet weather percent capture. Interim wet weather percent capture milestones are summarized in Table 7-1 "Project Cumulative CSO Control Levels as the Program is Implemented" of the September 2023 revised LTCP and was included in the draft NJPDES CSO permits. However, these milestones are subject to change in the future based on updated flow metering required as part of an approved LTCP Amendment.

In the event that the Permittees do not obtain percent capture requirements established in an approved LTCP Amendment, Adaptive Management practices must commence to ensure that additional CSO control measures are implemented to attain interim milestones. As stated in Part IV.H.2:

b. If an Interim or the Final PCCMP Report determines that the implemented CSO control measures do not meet the interim required percent capture or the final required percent capture, the Adaptive Management Plan shall include:.

i. Modified or additional CSO control measures that will be to achieve the interim required percent capture or the final required percent capture;

ii. A detailed analysis and a modified implementation plan and schedule of the CSO control measures; and

iii. Inclusion of any adaptive management modifications based on an Interim or the Final PCCMP Report.

In addition, Part IV.G.9 of the permit also requires submission of water quality monitoring results. As stated in Part IV.G.9.g:

g. Upon implementation of all the LTCP CSO control measures, the monitoring information collected from the ambient baseline monitoring phase of the BCMP shall be compared to the post-construction compliance monitoring to evaluate the effectiveness of CSO control measures implemented to verify that the remaining CSOs are not precluding the attainment of water quality standards for pathogens.

Finally, Part II contains a reopener clause which references compliance with water quality standards. Specifically,

a. This reopener clause authorizes the NJDEP to reopen and modify the permit upon determination that the CSO controls as contained in a LTCP fail to meet WQS or protect designated uses.

In summary, the Department maintains that the NJPDES permit is fully reflective of PCCMP requirements as included in the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

104. **COMMENT**: Part g. of the Compliance Monitoring – Post Construction Compliance Monitoring Plan section of the permits includes the statement: "remaining CSOs are not precluding the attainment of water quality standards for pathogens." EPA requests that this statement be revised to remove "for pathogens" as the CSO Control Policy (Section II.C.9.) does not limit water quality standards attainment or the purpose of the PCCMP to pathogens only. [1]

RESPONSE (104): The Department agrees that the NJPDES CSO permit must be consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. Part IV.G.9.g (CSM Requirements) has been modified in the final permits as follows:

g. Upon implementation of all the LTCP CSO control measures, the monitoring information collected from the ambient baseline monitoring phase of the BCMP shall be compared to the post-construction compliance monitoring to evaluate the effectiveness of CSO control measures implemented to verify that the remaining CSOs are not precluding the attainment of water quality standards ~~for pathogens~~.

This change affects Part IV.G.9.g (CSM Requirements) of the final permits.

105. **COMMENT:** Section IV(A) of the CSO Control Policy states that "[w]hen a CSO is permitted separately from the POTW, both permits should be cross-referenced for informational purposes."

EPA was unable to find language within each permit referencing the other related permits; and suggests that such a cross-reference be included in the permits. [1]

RESPONSE (105): The Department has included an additional permit condition to Part IV.G.10 to include a cross-reference to the hydraulically connected system for informational purposes. As a result, Part IV.G.10.a (CSM Requirements) of the CCMUA Delaware No. 1 WPCF, City of Camden, and Gloucester City final permits is as follows:

a. The Camden County Municipal Utilities Authority (NJPDES Permit No. NJ0026182), the City of Camden (NJPDES Permit No. NJ0108812), and Gloucester City (NJPDES Permit No. NJ0108847) are a hydraulically connected combined sewer system. The three permittees own/operate separate portions of one hydraulically connected combined sewer system.

~~a~~b. The permittee is responsible for implementing CSO control measures to ensure compliance with the Federal CSO Control Policy and N.J.A.C. 7:14-11, Appendix C as outlined in the Implementation Schedule located in Section G.8. Since multiple permittees own/operate different portions of a hydraulically connected CSS, the permittee is required to work cooperatively and provide the necessary information with all other CSO permittees to ensure overall compliance. In addition, each permittee is required to institute necessary measures in accordance with the Implementation Schedule for only the portion of the hydraulically connected system that the permittee owns/operates and provide this information to the other permittees for compliance with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

This change affects Part IV.G.10 (CSM Requirements) of the final permits.

CUSTOM REQUIREMENT (PART IV.H) COMMENTS

106. COMMENT: EPA is very supportive of the Custom Requirements for Precipitation Trends, which requires the permittee to analyze the annual precipitation trends over the term of the permit and compare them to assumptions used in the development of the LTCP. EPA would also like to highlight the importance of the Adaptive Management Plan and the requirement to provide additional or modified CSO control measures, additional analysis, and a modified implementation plan, should recent precipitation trends not agree with assumptions contained in the LTCP or if interim capture requirements are not met. [1]

RESPONSE (106): The Department acknowledges this supportive comment. The Department agrees that an assessment of annual precipitation trends is appropriate given climate change effects. In addition, the Department agrees that Adaptive Management is a key permit component to allow flexibility for changing conditions as well as technology improvements.

107. COMMENT: There is still less clarity in the language in these permits around how CSO controls address climate change and rising sea levels. At a minimum, the permittee should review the projected CSO removals and whether current projections of precipitation and sea level rise due to climate change affect the implementation plan.

It is unclear how this recent tool released by NJDEP will be used: https://njprojectedprecipitationchanges.com/. This was part of the two Extreme Precipitation Studies that NJDEP released confirming increased precipitation across New Jersey over the last twenty years and projecting further increases in precipitation intensity through the end of this century due to climate change. Can you clarify how this tool will be used by NJDEP and permit holders?

How will the Permit Holder be required to adjust their current plan to include these new precipitation models and projections? How will this be documented and reported on? Will NJDEP require permit holders to review the projected CSO removals and whether current projections of precipitation and sea level rise due to climate change require alterations to the implementation plan? [2]

108. COMMENT: Will NJDEP require permit holders to review the projected CSO removals and whether current projections of precipitation and sea level rise due to climate change require alterations to the implementation plan? [3]

109. COMMENT: NJDEP should provide guidance to permittees on how to use the newly released Extreme Precipitation Projection Tool, which projects increased precipitation intensity due to climate change. [4]

110. **COMMENT:** It is not clear how climate change will impact the performance of the system. Will the permit require adjustments to the plan based on updated precipitation models and projections for increased tide levels of the river? [7]

111. **COMMENT:** There is a need to look at the performance of the capture with more high intensity storms which we are already seeing. NJDEP needs to incorporate not just current level rainfall but similar to inland flood rule need to look at future levels of extreme weather what that means for CCMUA to deal with climate change and impacts on water infrastructure. [14]

RESPONSE (107-111): The Department agrees that climate change must be considered as part of CSO control measures. NJPDES permit requires measures to prepare for and respond to the effects of climate change, including Adaptive Management provisions, the preparation of an Emergency Plan (including Vulnerability Analysis and Asset Management requirements), and annual precipitation analyses over the life of the permit. The requirements of this permit may be modified or updated at the discretion of the Department as technology, information, and legal or regulatory requirements relating to climate change continue to develop.

Projects financed through the New Jersey Water Bank, which offers principal forgiveness loans and additional assistance for disadvantaged communities, will review individual projects for climate change impacts. This includes fluvial flooding, coastal flooding, sea level rise, category 1 hurricanes, and extreme precipitation in order to ensure that climate change considerations are maintained throughout the planning and implementation process.

The New Jersey Extreme Precipitation Projection Tool identified in this comment is an interactive tool for users to identify regional and local estimates of projected changes in extreme rainfall amounts. The tool allows users to view a range of rainfall depths, with options for frequencies, emission scenarios and time periods. The use of this specific tool by permittees is not required by the NJPDES CSO permits or the Federal CSO Control Policy. However, as described in **RESPONSE (112)**, the NJPDES CSO permits require permittees to determine the annual precipitation depth and analyze them against the assumptions used in the development of the LTCP.

Permittees are encouraged to consider the potential for increases in precipitation throughout the implementation of the LTCP via information sources like the New Jersey Extreme Precipitation Projection Tool.

112. **COMMENT:** We recommend the Department ensure that the permit holder develops a plan to evaluate changes in precipitation trends, quantifies the impact on the implementation plan, and makes appropriate changes accordingly. [3]

RESPONSE (112): The permittees are required to submit information regarding Precipitation Trends as stated in Part IV.H.1 of the NJPDES CSO permit:

1. Precipitation Trends

    a. The following information shall be submitted to the Department as part of the NJPDES permit renewal application:

        i. The permittee shall analyze and submit the annual precipitation depth obtained by the National Oceanic Atmospheric Administration (NOAA) at the Newark Liberty International Airport in order to determine the annual precipitation depth during the effective period of the permit.

        ii. The permittee shall determine and submit the annual precipitation depth for each calendar year, such that by the end of the permit, the most recent five calendar years of data has been collected. The permittee shall compare this data to assumptions utilized in the development of the LTCP.

        iii. This information shall be submitted to the Department with the NJPDES renewal application with an assessment of any change in precipitation trends.

The Department will evaluate this information at the time of permit renewal to determine if any changes need to be made based on these reported trends. Any such change would need to be in accordance with the Federal CSO Control Policy as well as N.J.A.C. 7:14A-11, Appendix C.

113. **COMMENT:** Future hydrologic and hydraulic modeling should be updated based on precipitation data and modeling from the Northeast Regional Climate Center released in November 2021. [4]

RESPONSE (113): As per the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C, "The permittee should examine the complete rainfall record for the geographic area of its existing CSS …." The Department maintains that utilizing local historical rainfall data is accurately representative of local conditions and is required to be used for the H&H model. The H&H model and system wide annual average rainfall were addressed in the System Characterization Report dated June 2018 (revised September 17, 2018 and January 14, 2019) and approved by the Department on January 24, 2019.

114. **COMMENT:** We acknowledge the NJDEP is working towards the development of rules entitled New Jersey Protecting Against Climate Threats (NJ PACT) to begin a regulatory reform effort to help reduce greenhouse gas and other climate pollutant emissions while making our natural and built environments more resilient to the impacts of climate change that are now unavoidable. We look forward to the development and implementation of NJ PACT by permittees through the CSO permit and other applicable regulations.

Governor Phil Murphy announced the adoption of the landmark Inland Flood Protection Rule to better protect New Jersey communities on the frontlines of severe flooding and increased storm events. The Inland Flood Protection Rule corrects outdated portions of the Flood Hazard Area and Stormwater Management Rules to better protect people and property from the devastating flooding that science shows is occurring with increasing frequency due to climate change. Currently, the state underestimates these floodplains because it uses outdated 20-100-year-old data that does not account for recent development and increased rains due to climate change. [2]

115. **COMMENT:** NJDEP should provide guidance on how to incorporate rules being developed by the NJ PACT process. Additionally, permit conditions should include a requirement to update models reflecting available climate data and incorporate projections from NJ PACT. NJDEP should require an updated recalibration based on new climate data at the end of each permit cycle.

Governor Phil Murphy announced the adoption of the landmark Inland Flood Protection Rule to better protect New Jersey communities on the frontlines of severe flooding and increased storm events. The Inland Flood Protection Rule corrects outdated portions of the Flood Hazard Area and the Stormwater Management Rules to better protect people and property from the devastating flooding that science shows is occurring with increasing frequency due to climate change. How will the Permit Holder be required to adjust their current 5-year plan to include these new precipitation models and projections? In addition, how will this be documented and reported on? [3]

116. **COMMENT:** NJDEP should provide clear guidance on how the NJ PACT rules will be incorporated into this permit and future permits, especially the anticipated Resilient Environments and Landscapes rule. The Department should require the permittees to document and report the impacts of climate change on CSO removals. [4]

RESPONSE (114-116): The Department acknowledges that New Jersey is threatened by climate change impacts such as rising sea levels, increasing temperature, and more intense and frequent storm events and flooding. As referenced in these comments, the Department continues its regulatory reform effort commonly referred to as NJ PACT. These regulations are the result of Executive Order No. 100 signed by Governor Phil Murphy. Consequently, Administrative Order No. 2020-01 required the Department to begin a regulatory reform effort to help reduce greenhouse gas and other climate pollutant emissions while making our natural and built environments more resilient to the impacts of climate change that are now unavoidable. The Inland Flood Protection Rule is a regulation that aims to improve community resilience against flooding by using updated precipitation data. This rule adopts amendments to the Flood Hazard Area Control Act rules and the Stormwater Management Rules. This rule applies to new and reconstructed assets in areas at most significant risk of flooding. The Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C is the relevant regulation that is applied to NJPDES CSO permits.

The permittees are required to comply with all final and applicable regulations.

Regarding the reference to the "current 5-year plan" in these comments, note that the Implementation Schedule contained in the revised LTCP dated September 2023 specifies a 15-year schedule,. Refer to **RESPONSE (83)** for more information.

117. **COMMENT:** As in our comments on the Ridgefield Park draft NJPDES CSO permit, we encourage permit holders to use the EPA's Climate Resilience Evaluation and Awareness Tool (CREAT) tool to assess climate resiliency. This should be encouraged for all permit holders. [2]

118. **COMMENT**: We recommend the Department encourage all permit holders to use EPA's CREAT for assessing climate resiliency. [3]

RESPONSE (117-118): Climate Resilience Evaluation and Awareness Tool (CREAT) is a tool that assists water sector utilities in assessing climate-related risks to utility assets and operations. While the Department cannot require use of the CREAT tool, the use of such tool is encouraged as CSO control measures are designed and developed in order to assess the vulnerability to climate change. Additional information on CREAT is available at: https://www.epa.gov/crwu/climate-resilience-evaluation-and-awareness-tool.

Some permittees in the northeastern portion of the state have partnered with the Hudson River Foundation New York-New Jersey Harbor Estuary Program to work with the EPA in using the CREAT tool. For example, Ridgefield Park assessed the vulnerability of the CSS vulnerability to the impacts of climate change. The CREAT tool was also used to assess the potential impact of sea level rise, to evaluate the resilience of selected CSO control alternatives, and to identify potential additional analyses and data that would be useful for future climate change impact assessments.

RESPONSE TO PERMITTEE COMMENTS

Comments on behalf of the permittees were submitted as identified below:

Written Comments		
Person	**Affiliation**	**Commenter Number**
Ray Bennett	Gloucester City	15
Tom Schevtchuk	Associate, CDM Smith on behalf of Camden County Municipal Utilities Authority	16

119. **COMMENT:** 95% of the debris field is outside of property controlled/owned by Gloucester City. Who is responsible for removing debris in front of G1 and G2?

Above is an image of the debris field. The green arrow points to the location of our outfall. The red box is the pathway that would be needed to be cleared of debris to allow proper flowing. We believe we can do this from land with machinery we can obtain due to its proximity to land. The issue, however, persists with the debris on the left side of our outfall. While it is not blocking the outfall currently, if (and when) we clear the debris in the red marked box, the other debris, which is on state property, will eventually be pushed into our outfall area via the tide.

How is it our responsibility to clean property that isn't ours (the state owns it via riparian rights), but will cause us problems in the future? If this is state riparian land that will cause issues to our outfall, should it not be the responsibility of the state to clear up their side of the property as well? I fail to see how we can be at fault for property we do not own and the river which is unpredictable. We have no issue with clearing our outfall, but I don't believe we understand where the extent of our responsibility is, as otherwise we are responsible for clearing land that is not held by the city and would basically mean we are responsible for all tidal lands in town. [15]

RESPONSE (119): Gloucester City owns and operates the following CSO outfalls:

Regulator	Outfall Number	Outfall Name	Latitude N	Longitude W
G1	001A	Charles Street	39º 53' 28"	75º 07' 47"
G2	002A	Charles & Water Streets	39º 53' 33"	75º 07' 50"
G3	003A	Jersey Avenue & Waters Street	39º 53' 45"	75º 07' 48"

Regulator	Outfall Number	Outfall Name	Latitude N	Longitude W
G4	004A	King & Market Streets	39º 53' 50"	75º 07' 44"
G5	005A	Ellis & Hudson Streets	39º 54' 07"	75º 07' 39"
G6	006A	Ellis & Mercer Streets	39º 54' 12"	75º 07' 03"
G7	007A	King Street & N. Broadway	39º 54' 27"	75º 07' 05"

CSO permittees are responsible for ensuring that the entire collection system, including each permittees' own/operated outfalls, is sufficiently clean in order to function properly and minimize CSO-related street flooding. As per Part IV.F.1.f.i of this final permit:

i. The System Cleaning Program shall be designed to ensure the entire collection system, including, but not limited to, tide gates, outfalls and regulators, is sufficiently clean in order to function properly and minimize CSO-related street flooding.

As such, it is the responsibility of Gloucester City to ensure that all outfalls, including G1 and G2, are fully functional and clear of debris. Proper operation and maintenance of the collection system is identified in the 2015 NJPDES permit at Part IV.F.1.i as well as in this subject final permit at Part IV.F.1.g as follows:

g. The permittee shall also include SOPs in the O&M Program and corresponding Manual for the operation, inspections, and scheduled preventative maintenance in accordance with the appropriate manufacturer's recommendations and equipment manuals at a minimum, to ensure that the entire collection system that is owned/operated by the permittee that conveys flows to the treatment works will function properly.

In response to the Department's August 9, 2023 Information request, the permittees provided a submission which included a draft Inspection Report entitled "Gloucester City - Inspection of Outfalls and Regulators" dated August 2023. Section 2.0 includes photographs which show excessive clogging of outfalls 001A (G1), 002A (G2), 003A (G3) and 004A (G4). The picture provided in the comments appears to be outfall DSN 001A (G1) where the flow is significantly obstructed by debris. The permittee is responsible for clearing the debris to ensure that the outfall can function. The Department's Southern Bureau of Water Compliance and Enforcement is working to address these issues.

Refer to **RESPONSE (59)** regarding the required submission of an Inspection Report for Gloucester City.

120. COMMENT: CCMUA was contracted to clean/dredge nine outfalls for the City of Camden. Is similar funding available to Gloucester City? [15]

RESPONSE (120): CCMUA and the City of Camden came to a mutual agreement to clean the outfalls in the City of Camden to restore hydraulic capacity but the Department was not involved in those discussions. As identified in the joint LTCP and the draft permit Fact Sheets, the City of Camden has already worked to address dredging at the outfall structures where this project has been completed. If Gloucester City is interested in a similar agreement with CCMUA, then the City would need to discuss that with CCMUA directly.

Financing is available and may be attained by application to the NJ Water Bank at: https://www.nj.gov/dep/dwq/mface_njeifp.htm. The Department and the New Jersey Infrastructure Bank (NJIB) partner together as the New Jersey Water Bank to administer New Jersey's State Revolving Fund in order to provide low-cost financing for the design, construction, and implementation of projects that help to protect, maintain and improve water quality. The Department recognizes the importance of providing robust funding opportunities for CSO projects, including gray and green infrastructure, WWTP improvements, and stormwater resilience projects. To this end, the New Jersey Water Bank offers a variety of funding packages with low interest loans and principal forgiveness, and additional resources for disadvantaged communities. For additional information visit http://nj.gov/dep/dwq/cwpl.htm.

121. COMMENT: If debris screens are erected around G1 and G2, is that sufficient protection of the outfall? [15]

RESPONSE (121): Proper operation and maintenance of the collection system including the outfalls is a requirement of the NJPDES permit. After these outfalls are dredged so that they are fully functional, properly maintained debris screens could be an effective solution to keeping the outfalls clean and functioning at hydraulic capacity. The utility of debris screens may be useful but is dependent on the site specifics of the outfall.

122. COMMENT: CCMUA pump station on King Street running at 45 million gallons per day (MGD) seems to meet the 85% capture target. Is this a feasible solution for Gloucester? [15]

RESPONSE (122): Gloucester City, the City of Camden, and CCMUA agreed to a coordinated LTCP and chose the Presumption Approach under the Federal CSO Control Policy. Under the Presumption Approach, the system wide percent capture must meet a minimum of 85% wet weather percent capture. All three permittees must work together to determine how they will achieve the system wide percent capture. Since Gloucester City has agreed to work together as a hydraulically connected system, the percent capture must be evaluated as a hydraulically connected system with the City of Camden and CCMUA.

Regarding operation of the CCMUA pump station at King Street at 45 MGD, there is not enough available information at this time to draw this conclusion of compliance with 85% wet weather capture. The King Street pump station is only referenced within the LTCP in relation to ongoing flooding concerns. However, increases in flow pumping at King Street for treatment at CCMUA could improve wet weather percent capture. A rerun of the H&H model would need to be performed to determine compliance.

While flooding is described in the King Street area, the LTCP does not specify a proposal to operate the CCMUA pump station at King Street at 45 MGD. Nonetheless, if operation at 45 MGD increases flows diverted to the plant, this would increase wet weather percent capture. As stated in Part IV.G.4.c:

c. This permit renewal includes an implementation schedule as well as specific requirements to track and assess compliance with the attainment of wet weather percent capture. In order to evaluate the performance of the CSO control measures, the permittees are required to demonstrate percent reduction through the use of the H&H model to attain no less than 85% wet weather capture.

As described in the September 2020 (revised September 2023) LTCP, street flooding can occur in Gloucester City during storm events occurring between two hours before and after high tides. In addition, Gloucester City and CCMUA coordinate the operation of CCMUA's Gloucester City pump station during high tide storm events to minimize flooding conditions. The Department advocates any operational changes that can reduce street flooding.

123. COMMENT: After all control and mitigation programs are completed, who pays for the system analysis and evaluation of physical control structures? Who will be financially responsible for the cost of the control structures? [15]

RESPONSE (123): Gloucester City is the permit holder and is responsible for compliance with the NJPDES CSO permit as the Permittee. Specifically, the Permittee is financially responsible for operating and maintaining any infrastructure that they own and operate. This includes the cost of any control structures that are needed to comply with permit conditions.

Regarding the system analysis, the Department notes that CCMUA, the City of Camden and Gloucester City agreed to a joint, coordinated LTCP including a H&H model. CCMUA has assumed responsibility for certain components such as the preparation of the 2020 LTCP and the H&H model. However, any such agreement regarding the revised LTCP must be worked out between Gloucester City, CCMUA and the City of Camden. Where multiple permittees own/operate different portions of a hydraulically connected CSS, the permittee is required to work cooperatively with all other permittees to ensure the LTCP is consistent.

124. COMMENT: Please verify whether NJDEP is requiring CCMUA to install temporary flow monitoring equipment for an entire one-year period. Previously, with NJDEP's concurrence and approval, CCMUA has installed flow monitors targeted for seasonally wet weather periods such as the late winter, spring, and early summer months.

Winter in the Northeast is not a good time to conduct flow monitoring due to snow instead of rain. Summer is not an optimal time for flow monitoring due to limited model resolution and rainfall data input to reflect highly localized thunderstorms.

Maintaining temporary flow meters and the services of a flow monitoring vendor will impose significant cost on CCMUA and other permittees statewide with minimal technical benefit. [16]

RESPONSE (124): Alternate flow metering periods have been utilized as part of the System Characterization Report requirements as approved by the Department in a work plan. For the purposes of the LTCP Amendment, and due to the fact that it is due in EDP + 5 years, the Department acknowledges that one year of flow metering may not be possible specifically for the LTCP Amendment. As a result, the permittee must propose an appropriate monitoring period for flow metering as part of any work plan for flow metering for the LTCP Amendment.

Subsequent to the submission of the LTCP Amendment, flow monitoring is required in Part IV.G.9.d as follows:

d. During and after the implementation of the LTCP, the PCCMP shall use the following steps to determine if the CSO control measures are meeting the interim required percent capture or the final required percent capture:.
   i. Collect flow monitoring for a 1-year period and rainfall data for a 1-year period during the effective NJPDES permit. Perform QA/QC on the data. Note that this is separate from the monthly monitoring form data;
   ii. At the end of the effective NJPDES permit, update the H&H model to include all completed CSO control measures and any other modifications to the CSS since the H&H model was calibrated for the LTCP;
   iii. Calibrate and/or validate the updated H&H model, if needed, using the flow and rainfall data collected during the effective NJPDES permit. Any recalibration of the H&H model shall be approved by the Department; and
   iv. Perform continuous simulation using the updated H&H model on the system-wide annual average and calculate the percent capture to determine if the interim required percent capture or the final required percent capture is being achieved.

It is important to note that the flow metering schedule and the need for recalibration of the H&H model will be evaluated on a case-by-case basis in coordination with the Department. In accordance with the above, during the implementation of the approved LTCP Amendment, the NJPDES CSO permit requires that the Post Construction Compliance Monitoring Plan determine if the implemented CSO control measures are meeting the required percent capture through a simulation using the H&H model on the system wide annual average. To comply with this requirement, the permittee is required to update the H&H model to include all completed CSO control measures since the original calibration of the H&H model for the LTCP. The purpose of the flow monitoring is to demonstrate predictability of the H&H model by simulating the changes in flow patterns based on the implemented CSO control measures during the permit cycle. If recalibration of the H&H model was determined to be needed, adequate flow monitoring data must be collected during the effective permit for the purpose of recalibration and revalidation of the model. Once the H&H model is successfully recalibrated/revalidated, no additional flow monitoring data would be needed.

125. COMMENT: Requiring that item Part IV.G.9.f.vi be completed within 54 months of the EDP (i.e., six months before the permit expiration) may be problematic, particularly if a year of flow monitoring is required. It will take two years to complete the required flow monitoring, model calibration/validation, and obtain NJDEP review and approval. Counting backwards, that puts the start of flow monitoring at EDP + 2.5 years.

It is likely that CSO control projects to be included in a given permit cycle will not be sufficiently complete after EDP + 2.5 years for flow monitoring to capture the effectiveness of the CSO control measures.

Assuming an EDP in early 2024, some of the control measures included in the proposed LTCP implementation schedule (Figure 8-1) referenced on pg. 63 of the Fact Sheet will be implemented within EDP + 30 months such as the City of Camden's sewer cleaning and Gloucester City's outfall cleaning (scheduled completion February 2026). Other control measures such as the implementation of structural controls by CCMUA for C-32 will not be completed until late in 2028, the last full year of the five year permit cycle.

CCMUA would anticipate that NJDEP will take such scheduling realities into consideration in the finalization of the permits and as the control measures are implemented during the permit cycle. [16]

RESPONSE (125): As described in the previous response, a year of flow metering is not required for the LTCP Amendment. The submittal of an Interim PCCMP Report on or before EDP + 54 months is required in Part IV.G.9.f. The Interim PCCMP Report serves to provide an update and evaluation of the effectiveness of the CSO control measures constructed during the permit term to demonstrate progress towards 85% wet weather capture by determining if the interim required percent capture is achieved.

As per Part IV.G.8, Gloucester City's outfall cleaning is scheduled to be complete by EDP + 2 years.

126. COMMENT: Related to CCMUA's prior comment (**COMMENT 125**) regarding Part IV.G.9.f, the requirement that an Adaptive Management Plan be submitted on or before EDP + 54 months may not be feasible since, pursuant to the LTCP implementation schedule contained in the draft permit, some of the CSO control elements will not be completed in enough time to evaluate their effectiveness through the necessary flow monitoring and model validation and calibration.

CCMUA requests that NJDEP limit the applicability of Part IV.H.1 to those CSO control elements that will be completed soon enough to evaluate their effectiveness.

We would further note that the LTCP implementation schedule contained in the draft permit includes the joint CCMUA/City of Camden/Gloucester City re-evaluation of structural control elements which will be based on post sewer and outfall cleaning, monitoring, and modeling. The re-evaluation is scheduled to be completed in March 2028; no interim percentage capture targets can be identified prior to the completion of these efforts. [16]

RESPONSE (126): It appears the commenter erroneously referred to Part IV.H.1 and had intended to refer to Part IV.H.2. Part IV.H.2.a is as follows:

a. An Adaptive Management Plan shall be submitted on or before 54 months from the effective date of the permit (EDP) if any of the following occurs:
   i. An Interim or the Final PCCMP Report determines that the implemented CSO control measures do not meet the interim required percent capture or the final required percent capture as per Part IV.G.9.e. above;.
   ii. A permittee requests to modify the implementation schedule and/or CSO control measures in the implementation schedule; and/or
   iii. The precipitation trends required in Part IV.H.1 above demonstrates a change in the assumptions used in the development of the LTCP.

Based on the above, an Adaptive Management Plan is not required but rather commences if one or more of the above conditions occur which affect the Implementation Schedule and/or CSO control measures. In addition, the Department recognizes that the Implementation Schedule included in the NJPDES CSO Permit includes the re-evaluation of the CSO control measures following sewer system and CSO outfall cleaning as part of a LTCP Amendment. As such, the Implementation Schedule set forth in the permit does not establish any interim percent capture milestones.

RESPONSE TO COMMENT SPECIFIC TO CCMUA

The following comment and response apply only to CCMUA Delaware No. 1 WPCF (NJPDES No. NJ0026182).

Written Comments		
Person	**Affiliation**	**Commenter Number**
Virginia Wong	Chief, Clean Water Regulatory Branch, United States Environmental Protection Agency (US EPA) Region 2	1

127. COMMENT: The draft CCMUA permit contains a provision providing that NJDEP will consider proposing to remove or modify a toxic pollutant's newly imposed final effluent limitation from the permit provided that specific information is provided for NJDEP's review and consideration.

In accordance with 40 CFR 122.44(l), when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under 40 CFR 122.62).

Pursuant to 40 CFR 123.25(a), States with NPDES programs must have the legal authority to implement, and must administer their programs in conformance with, certain provisions of the federal NPDES program regulations, including 40 CFR 122.44, which contains regulations regarding the establishment of NPDES permit conditions, including requirements that ensure against backsliding of permit terms and conditions (40 CFR 122.44(l)(1)). The state does not need to implement provisions identical to those identified in 40 CFR 123.25, however, the implemented provisions must establish requirements at least as stringent as the corresponding provisions listed in 123.25 (40 CFR 123.25(a) Note).

Section 402(o)(2) of the Clean Water Act provides a few exceptions to the prohibition on backsliding, including material and substantial alterations or additions to the permitted facility after permit issuance which justify a less stringent limit, new information is available that was not available at the time of issuance, a technical mistake was made, and other exceptions.

NJDEP, if it modifies or removes a final WQBEL from any permit(s), must ensure that the modification or removal is consistent with CWA Section 402(o)(2). [1]

RESPONSE (127): The Department maintains that existing regulatory provisions within the CCMUA NJPDES permit address these concerns. The Department acknowledges that these rule provisions apply and that water quality-based effluent limitations cannot be modified unless antibacksliding provisions are met. 40 CFR 122.44 (antibacksliding requirements) is specifically cited on page 9 of the Fact Sheet as a basis for effluent limitations along with N.J.A.C. 7:14A-13.19 which states the following:

(a) Except as provided for under Section 402(o) of the Federal Act (33 U.S.C. §1342(o)), when a permit is modified, renewed or reissued, all effluent limitations or standards shall be at least as stringent as the final and effective effluent limitations or standards in the previous permit.

Also, as stated on page 10 of the Fact Sheet:

"All permit limitations and conditions in this permit action, are equal to or more stringent than those contained in the existing permit action."

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: NJ0026182

Final: Surface Water Renewal Permit Action

Permittee:
Camden County Municipal Utilities Authority
1645 Ferry Avenue
Camden, NJ 08104

Co-Permittee:

Property Owner:
Camden County Municipal Utilities Authority
1645 Ferry Avenue
Camden, NJ 08104

Location Of Activity:
Delaware #1 Water Pollution Control Facility
2nd & Jackson Streets
Camden City, NJ 08104
Camden County

Authorizations Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
A - Sanitary Wastewater (IP) - Renewal CSM - Combined Sewer Management (IP) - Renewal	11/4/2024	1/1/2025	12/31/2029

By Authority of:
Commissioner's Office

DEP AUTHORIZATION
Brett Callanan, Chief
Bureau of Surface Water and Pretreatment Permitting

(Terms, conditions and provisions attached hereto)

PART I
GENERAL REQUIREMENTS:
NJPDES

A. General Requirements of all NJPDES Permits

1. Requirements Incorporated by Reference

a. The permittee shall comply with all conditions set forth in this permit and with all the applicable requirements incorporated into this permit by reference. The permittee is required to comply with the regulations, including those cited in paragraphs b. through e. following, which are in effect as of the effective date of the final permit.

b. General Conditions

Penalties for Violations	N.J.A.C. 7:14-8.1 et seq.
Incorporation by Reference	N.J.A.C. 7:14A-2.3
Toxic Pollutants	N.J.A.C. 7:14A-6.2(a)4i
Duty to Comply	N.J.A.C. 7:14A-6.2(a)1 & 4
Duty to Mitigate	N.J.A.C. 7:14A-6.2(a)5 & 11
Inspection and Entry	N.J.A.C. 7:14A-2.11(e)
Enforcement Action	N.J.A.C. 7:14A-2.9
Duty to Reapply	N.J.A.C. 7:14A-4.2(e)3
Signatory Requirements for Applications and Reports	N.J.A.C. 7:14A-4.9
Effect of Permit/Other Laws	N.J.A.C. 7:14A-6.2(a)6 & 7 & 2.9(c)
Severability	N.J.A.C. 7:14A-2.2
Administrative Continuation of Permits	N.J.A.C. 7:14A-2.8
Permit Actions	N.J.A.C. 7:14A-2.7(c)
Reopener Clause	N.J.A.C. 7:14A-6.2(a)10
Permit Duration and Renewal	N.J.A.C. 7:14A-2.7(a) & (b)
Consolidation of Permit Process	N.J.A.C. 7:14A-15.5
Confidentiality	N.J.A.C. 7:14A-18.2 & 2.11(g)
Fee Schedule	N.J.A.C. 7:14A-3.1
Treatment Works Approval	N.J.A.C. 7:14A-22 & 23

c. Operation And Maintenance

Need to Halt or Reduce not a Defense	N.J.A.C. 7:14A-2.9(b)
Proper Operation and Maintenance	N.J.A.C. 7:14A-6.12

d. Monitoring And Records

Monitoring	N.J.A.C. 7:14A-6.5
Recordkeeping	N.J.A.C. 7:14A-6.6
Signatory Requirements for Monitoring Reports	N.J.A.C. 7:14A-6.9

e. Reporting Requirements

Planned Changes	N.J.A.C. 7:14A-6.7
Reporting of Monitoring Results	N.J.A.C. 7:14A-6.8
Noncompliance Reporting	N.J.A.C. 7:14A-6.10 & 6.8(h)
Hotline/Two Hour & Twenty-four Hour 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 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 Facility 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.

5. Notification of Change in Ownership and/or Permittee/Operating Entity

a. As set forth at N.J.A.C. 7:14A-16.2, prior to any change in ownership and/or the permittee/operating entity, the current permittee shall provide written notice to the Department at least thirty (30) days prior to the proposed transfer date.

i. Written notice to the Department shall be in the form of a completed Application for Transfer of a NJPDES Permit form, which is available on the Department's website or by contacting the appropriate permitting program.

6. Notification of Changes to the Facility/Permit Contacts

a. The permittee shall notify the Department within thirty (30) days of a change in contact information for any of the following persons associated with the facility/permit:.

i. Permittee/Operating Entity Contact;.

ii. Property Owner Contact;.

iii. Facility Contact; or.

iv. Fees/Billing Contact.

b. Notification to the Department shall be in the form of a completed Contact Information Update form (i.e. NJPDES-2 form), which is available on the Department's website or by contacting the appropriate permitting program.

7. 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.

8. 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.

9. Standard Reporting Requirements - Electronic Submission of NJPDES Information

a. The below identified documents and reports shall be electronically submitted to the NJDEP via the Department's designated Electronic Submission Service.

i. POTW pretreatment program annual reports

ii. 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.

iii. Non-compliance reports required by N.J.A.C. 7:14A-6.10 and 40 CFR 122.41(1)(6) and (7) related to combined sewer overflows(see Part II.B.3.c).

10. 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 Water System Engineering
Mail Code 401-04Q
PO Box 420
Trenton, New Jersey 08625 - 0420
(609) 292-2957
or via email to www@dep.nj.gov

b. The permittee shall notify the Department of any changes in licensed operator within two weeks of the change.

11. 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.

C. Custom Requirement

1. CSO Reopener Clause

a. This reopener clause authorizes the NJDEP to reopen and modify the permit upon determination that the CSO controls as contained in a LTCP fail to meet WQS or protect designated uses.

2. Water-Quality Based Requirements for CSOs as a Numeric Performance Standard

a. CSOs are point sources subject to NJPDES permit requirements including both technology-based and water-quality based requirements of the Clean Water Act.

b. Water quality-based effluent limits under 40 CFR Sections 122.44(d)(1) and 122.44(k) require, at a minimum, compliance with, no later than the date allowed under the State's WQS, the numeric performance standards for the selected CSO controls, based on average design conditions. Because the permittee selected the Presumption Approach, as specified in Part IV.G.4.a.ii,the numeric performance standard for the selected CSO controls is a minimum percentage capture of combined sewage by volume for treatment under specified design conditions consistent with II.C.4.a.ii of the CSO Control Policy.

3. Limited Approval of the LTCP and LTCP Amendment

a. This renewal permit implements the initial five years of the LTCP Implementation Schedule as established by the permittee and as approved in the Administrative Compliance Agreement executed by the Department and the permittees dated November 1, 2024.

b. The permittee shall submit an LTCP Amendment as required by Part IV.D.3.

PART III
LIMITS AND MONITORING REQUIREMENTS

MONITORED LOCATION:	RECEIVING STREAM:	STREAM CLASSIFICATION:	DISCHARGE CATEGORY(IES):
001A SW Outfall DSN001A	Delaware River (Zone 3)	Mainstem Delaware-Zone 3	A - Sanitary Wastewater (IP)

Location Description

Influent monitoring shall be performed before any treatment, other than degritting, and before the addition of any internal waste streams. Effluent monitoring for all parameters (except WET) shall be after chlorination at DSN 001A prior to discharge to the Delaware River. Effluent samples for WET testing shall be performed prior to chlorination. DSN 001A discharges into Zone 3 of the Delaware River at Latitude 39° 55' 21.8" N and Longitude 75° 07' 41.5" W.

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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 1-Initial **PHASE Start Date:** 01/01/2025 **PHASE End Date:** 12/31/2027

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	MGD	*****	REPORT 12 Month Rolling Av	*****	MGD	Continuous	Metered
January thru December	QL	***	***		***	***	***			
pH	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	*****	REPORT Instant Maximum	SU	6/Day	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Instant Minimum	*****	9.0 Instant Maximum	SU	6/Day	Grab
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Day	24 Hour Composite
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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 1-Initial **PHASE Start Date:** 01/01/2025 **PHASE End Date:** 12/31/2027

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Solids, Total Suspended	Effluent Gross Value	9084 Monthly Average	13626 Weekly Average	KG/DAY	*****	30 Monthly Average	45 Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Day	Calculated
January thru December	QL	***	***		***	***	***			
Oil and Grease	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Daily Maximum	MG/L	2/Month	Grab
January thru December	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	KG/DAY	*****	35 Monthly Average	REPORT Daily Maximum	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	KG/DAY	*****	REPORT Monthly Average	REPORT Daily Maximum	MG/L	1/Month	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Solids, Total Dissolved (TDS)	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Month	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Coliform, Fecal General	Effluent Gross Value	*****	*****	*****	*****	200 Monthly Geo Avg	400 Weekly Geometric	#/100ML	1/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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 1-Initial **PHASE Start Date:** 01/01/2025 **PHASE End Date:** 12/31/2027

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
BOD, Carbonaceous 5 Day, 20oC	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Effluent Gross Value	6457 Monthly Average	9686 Weekly Average	KG/DAY	*****	25 Monthly Average	40 Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Percent Removal	*****	*****	*****	87 Monthly Av Minimum	*****	*****	PERCENT	1/Day	Calculated
January thru December	QL	***	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	26 Report Per Minimum	*****	*****	%EFFL	1/6 Months	Composite
January thru December	QL	***	***		***	***	***			
Chlorine Produced Oxidants	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	MG/L	6/Day	Grab
January thru December	MDL	***	***		***	***	***			
Temperature, oC	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Week	Grab
January thru December	QL	***	***		***	***	***			
Temperature, oC	Effluent Gross Value	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Week	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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 1-Initial **PHASE Start Date:** 01/01/2025 **PHASE End Date:** 12/31/2027

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Color (pt-co Units)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	*****	PT-CO	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Oxygen, Dissolved (DO)	Effluent Gross Value	*****	*****	*****	*****	REPORT Daily Avg Minimum	*****	MG/L	1/Day	Grab
January thru December	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
January thru December	QL	***	***		***	***	***			
Cyanide, Total (as CN)	Effluent Gross Value	5996 Monthly Average	9601 Daily Maximum	GR/DAY	*****	20 Monthly Average	32 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	RQL	***	***		***	***	***			
Nickel, Total Recoverable	Effluent Gross Value	234635 Monthly Average	385411 Daily Maximum	GR/DAY	*****	774 Monthly Average	1272 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Zinc, Total Recoverable	Effluent Gross Value	REPORT Monthly Average	68450 Daily Maximum	GR/DAY	*****	REPORT Monthly Average	226 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	RQL	***	***		***	***	***			

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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 1-Initial **PHASE Start Date:** 01/01/2025 **PHASE End Date:** 12/31/2027

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Copper, Total Recoverable	Effluent Gross Value	REPORT Monthly Average	30300 Daily Maximum	GR/DAY	*****	REPORT Monthly Average	100 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	RQL	***	***		***	***	***			

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

PHASE: 2-Interim **PHASE Start Date:** 01/01/2028 **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 Monthly Average	REPORT Daily Maximum	MGD	*****	REPORT 12 Month Rolling Av	*****	MGD	Continuous	Metered
January thru December	QL	***	***		***	***	***			
pH	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	*****	REPORT Instant Maximum	SU	6/Day	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Instant Minimum	*****	9.0 Instant Maximum	SU	6/Day	Grab
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Day	24 Hour Composite
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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 2-Interim **PHASE Start Date:** 01/01/2028 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Solids, Total Suspended	Effluent Gross Value	9084 Monthly Average	13626 Weekly Average	KG/DAY	*****	30 Monthly Average	45 Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Day	Calculated
January thru December	QL	***	***		***	***	***			
Oil and Grease	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Daily Maximum	MG/L	2/Month	Grab
January thru December	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	KG/DAY	*****	35 Monthly Average	REPORT Daily Maximum	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	KG/DAY	*****	REPORT Monthly Average	REPORT Daily Maximum	MG/L	1/Month	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Solids, Total Dissolved (TDS)	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Month	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Coliform, Fecal General	Effluent Gross Value	*****	*****	*****	*****	200 Monthly Geo Avg	400 Weekly Geometric	#/100ML	1/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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 2-Interim **PHASE Start Date:** 01/01/2028 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
BOD, Carbonaceous 5 Day, 20oC	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Effluent Gross Value	6457 Monthly Average	9686 Weekly Average	KG/DAY	*****	25 Monthly Average	40 Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Percent Removal	*****	*****	*****	87 Monthly Av Minimum	*****	*****	PERCENT	1/Day	Calculated
January thru December	QL	***	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	26 Report Per Minimum	*****	*****	%EFFL	1/6 Months	Composite
January thru December	QL	***	***		***	***	***			
Chlorine Produced Oxidants	Effluent Gross Value	*****	*****	*****	*****	0.04 Monthly Average	0.07 Daily Maximum	MG/L	6/Day	Grab
January thru December	MDL	***	***		***	***	***			
Temperature, oC	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Week	Grab
January thru December	QL	***	***		***	***	***			
Temperature, oC	Effluent Gross Value	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Week	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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 2-Interim **PHASE Start Date:** 01/01/2028 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Color (pt-co Units)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	*****	PT-CO	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Oxygen, Dissolved (DO)	Effluent Gross Value	*****	*****	*****	*****	REPORT Daily Avg Minimum	*****	MG/L	1/Day	Grab
January thru December	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
January thru December	QL	***	***		***	***	***			
Cyanide, Total (as CN)	Effluent Gross Value	5996 Monthly Average	9601 Daily Maximum	GR/DAY	*****	20 Monthly Average	32 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	RQL	***	***		***	***	***			
Nickel, Total Recoverable	Effluent Gross Value	234635 Monthly Average	385411 Daily Maximum	GR/DAY	*****	774 Monthly Average	1272 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Zinc, Total Recoverable	Effluent Gross Value	REPORT Monthly Average	68450 Daily Maximum	GR/DAY	*****	REPORT Monthly Average	226 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	RQL	***	***		***	***	***			

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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 2-Interim **PHASE Start Date:** 01/01/2028 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Copper, Total Recoverable	Effluent Gross Value	REPORT Monthly Average	30300 Daily Maximum	GR/DAY	*****	REPORT Monthly Average	100 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	RQL	***	***		***	***	***			

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

PHASE: 3-Final **PHASE Start Date:** INACTIVE **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Duration Of Discharge	Bypass	*****	*****	*****	*****	REPORT Monthly Total	*****	# OF DAYS	1/Month	Calculated
January thru December	QL	***	***		***	***	***			
Flow, In Conduit or Thru Treatment Plant	Raw Sew/influent	REPORT Monthly Average	REPORT Daily Maximum	MGD	*****	*****	*****	*****	Continuous	Metered
January thru December	QL	***	***		***	***	***			
Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	MGD	*****	REPORT 12 Month Rolling Av	*****	MGD	Continuous	Metered
January thru December	QL	***	***		***	***	***			
Flow, Total	Bypass	REPORT Monthly Total	*****	MGAL	*****	*****	*****	*****	1/Month	Metered
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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 3-Final **PHASE Start Date:** INACTIVE **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
pH	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	*****	REPORT Instant Maximum	SU	6/Day	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Instant Minimum	*****	9.0 Instant Maximum	SU	6/Day	Grab
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Effluent Gross Value	9084 Monthly Average	13626 Weekly Average	KG/DAY	*****	30 Monthly Average	45 Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Day	Calculated
January thru December	QL	***	***		***	***	***			
Oil and Grease	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Daily Maximum	MG/L	2/Month	Grab
January thru December	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	KG/DAY	*****	35 Monthly Average	REPORT Daily Maximum	MG/L	1/Day	24 Hour Composite
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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 3-Final **PHASE Start Date:** INACTIVE **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	KG/DAY	*****	REPORT Monthly Average	REPORT Daily Maximum	MG/L	1/Month	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Solids, Total Dissolved (TDS)	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Month	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Coliform, Fecal General	Effluent Gross Value	*****	*****	*****	*****	200 Monthly Geo Avg	400 Weekly Geometric	#/100ML	1/Day	Grab
January thru December	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Effluent Gross Value	6457 Monthly Average	9686 Weekly Average	KG/DAY	*****	25 Monthly Average	40 Weekly Average	MG/L	1/Day	24 Hour Composite
January thru December	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Percent Removal	*****	*****	*****	87 Monthly Av Minimum	*****	*****	PERCENT	1/Day	Calculated
January thru December	QL	***	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	26 Report Per Minimum	*****	*****	%EFFL	1/6 Months	Composite
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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 3-Final **PHASE Start Date:** INACTIVE **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Chlorine Produced Oxidants	Effluent Gross Value	*****	*****	*****	*****	0.04 Monthly Average	0.07 Daily Maximum	MG/L	6/Day	Grab
January thru December	MDL	***	***		***	***	***			
Temperature, oC	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Week	Grab
January thru December	QL	***	***		***	***	***			
Temperature, oC	Effluent Gross Value	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Week	Grab
January thru December	QL	***	***		***	***	***			
Color (pt-co Units)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	*****	PT-CO	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Oxygen, Dissolved (DO)	Effluent Gross Value	*****	*****	*****	*****	REPORT Daily Avg Minimum	*****	MG/L	1/Day	Grab
January thru December	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
January thru December	QL	***	***		***	***	***			
Cyanide, Total (as CN)	Effluent Gross Value	5996 Monthly Average	9601 Daily Maximum	GR/DAY	*****	20 Monthly Average	32 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	RQL	***	***		***	***	***			

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)..

Comments:

3-Final Phase limitations can be activated when bypass operations begin once a Treatment Works Approval is obtained.

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

PHASE: 3-Final **PHASE Start Date:** INACTIVE **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Nickel, Total Recoverable	Effluent Gross Value	234635 Monthly Average	385411 Daily Maximum	GR/DAY	*****	774 Monthly Average	1272 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	QL	***	***		***	***	***			
Zinc, Total Recoverable	Effluent Gross Value	REPORT Monthly Average	68450 Daily Maximum	GR/DAY	*****	REPORT Monthly Average	226 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	RQL	***	***		***	***	***			
Copper, Total Recoverable	Effluent Gross Value	REPORT Monthly Average	30300 Daily Maximum	GR/DAY	*****	REPORT Monthly Average	100 Daily Maximum	UG/L	1/Month	24 Hour Composite
January thru December	RQL	***	***		***	***	***			

Surface Water WCR - Quarterly Reporting Requirements:

Submit a Quarterly WCR: within twenty-five days after the end of every quarterly monitoring period beginning from the effective date of the permit (EDP) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the effluent sample for the priority pollutant scan shall be collected to coincide with the influent and sludge monitoring for the priority pollutants.

Table III - A - 4: Surface Water WCR - Quarterly Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Barium, Total Recoverable (as Ba)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,4-Dichlorobenzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Bis(2-ethylhexyl) phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chloroform	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Methylene Chloride	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Cyanide, free	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the effluent sample for the priority pollutant scan shall be collected to coincide with the influent and sludge monitoring for the priority pollutants.

Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Molybdenum, Total (as Mo)	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
Silver, 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
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
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

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the effluent sample for the priority pollutant scan shall be collected to coincide with the influent and sludge monitoring for the priority pollutants.

Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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
Fluorene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Hexachlorocyclo-pentadiene	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

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the effluent sample for the priority pollutant scan shall be collected to coincide with the influent and sludge monitoring for the priority pollutants.

Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
N-nitrosodi-n-propylamine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodiphenyl-amine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodimethyl-amine	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	Grab	January thru December
1,2,4-Trichloro-benzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
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	Grab	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

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the effluent sample for the priority pollutant scan shall be collected to coincide with the influent and sludge monitoring for the priority pollutants.

Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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
Di-n-butyl phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzidine	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
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

Surface Water WCR - Semi Annual Reporting Requirements:

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Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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
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
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
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

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the effluent sample for the priority pollutant scan shall be collected to coincide with the influent and sludge monitoring for the priority pollutants.

Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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
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
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

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the effluent sample for the priority pollutant scan shall be collected to coincide with the influent and sludge monitoring for the priority pollutants.

Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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
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
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

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the effluent sample for the priority pollutant scan shall be collected to coincide with the influent and sludge monitoring for the priority pollutants.

Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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
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
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
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

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the effluent sample for the priority pollutant scan shall be collected to coincide with the influent and sludge monitoring for the priority pollutants.

Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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:	RECEIVING STREAM:	STREAM CLASSIFICATION:	DISCHARGE CATEGORY(IES):
040A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 040A located at 32nd & Farragut Street into the Delaware River at Latitude 39° 57' 54" N and Longitude 75° 05' 28" W.

Contributing Waste Types

Sanitary, Storm Water Runoff

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).

Comments:

For this outfall, Precipitation may be reported from a rain gauge representative of the area and Duration of Discharge shall be reported as a whole day for any day when a discharge occurs. Solids/Floatables may be reported when the solid waste is measured for disposal.

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

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Solids/Floatables	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Total	*****	CU YARDS	1/Month	Measured
January thru December	QL	***	***		***	***	***			
Precipitation	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Total	*****	# INCHES	1/Month	Measured
January thru December	QL	***	***		***	***	***			
Duration Of Discharge	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Total	*****	# OF DAYS	1/Month	Estimated
January thru December	QL	***	***		***	***	***			

MONITORED LOCATION:	RECEIVING STREAM:	STREAM CLASSIFICATION:	DISCHARGE CATEGORY(IES):
IPPI IPPI INFLUENT SAMPLING	Delaware River	Mainstem Delaware-Zone 3	A - Sanitary Wastewater (IP)

Location Description

Influent monitoring shall be performed before any treatment, other than degritting, and before the addition of any internal waste streams.

Contributing Waste Types

Sanitary

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) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the influent sample for the priority pollutant scan shall be collected to coincide with the effluent and sludge monitoring for the priority pollutants.

Table III - C - 1: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Molybdenum, Total (as Mo)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Cyanide, Total (as CN)	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Arsenic, Total Recoverable (as As)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Selenium, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Thallium, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Beryllium, Total Recoverable (as Be)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Nickel, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Silver, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Zinc, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Cadmium, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Annual Reporting Requirements:

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Table III - C - 1: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Lead, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Chromium, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Copper, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Antimony, Total Recoverable	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Mercury, Total (as Hg)	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Acenaphthylene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Acenaphthene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Anthracene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(b)fluoranthene (3,4-benzo)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(k)fluoranthene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(a)pyrene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Bis(2-chloroethyl) ether	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Bis(2-chloroethoxy) methane	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Bis (2-chloroiso-propyl) ether	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Butyl benzyl phthalate	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December

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Table III - C - 1: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Chrysene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Diethyl phthalate	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Dimethyl phthalate	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
1,2-Diphenyl-hydrazine	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Fluoranthene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Fluorene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Hexachlorocyclo-pentadiene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Hexachloroethane	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Indeno(1,2,3-cd)-pyrene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Isophorone	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodi-n-propylamine	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodiphenyl-amine	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodimethyl-amine	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Nitrobenzene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Phenanthrene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Annual Reporting Requirements:

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Table III - C - 1: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Pyrene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(ghi)perylene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(a)anthracene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
1,2-Dichlorobenzene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
1,2,4-Trichloro-benzene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Dibenzo(a,h) anthracene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
1,3-Dichlorobenzene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
1,4-Dichlorobenzene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
2-Chloronaphthalene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dinitrotoluene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
2,6-Dinitrotoluene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
3,3'-Dichloro-benzidine	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
4-Bromophenyl phenyl ether	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Naphthalene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Bis(2-ethylhexyl) phthalate	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Annual Reporting Requirements:

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Table III - C - 1: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Di-n-butyl phthalate	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Benzidine	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Hexachlorobenzene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Hexachlorobutadiene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
1,3-Dichloropropene	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Carbon Tetrachloride	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
1,2-Dichloroethane	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Bromoform	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Chloroform	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Toluene	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Benzene	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Acrolein	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Acrylonitrile	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Chlorobenzene	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Chlorodibromomethane	Raw Sew/influent	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) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the influent sample for the priority pollutant scan shall be collected to coincide with the effluent and sludge monitoring for the priority pollutants.

Table III - C - 1: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Ethylbenzene	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Methyl Bromide	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Methyl Chloride	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Methylene Chloride	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Tetrachloroethylene	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Trichlorofluoro-methane	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
1,1-Dichloroethane	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
1,1-Dichloroethylene	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
1,1,1-Trichloro-ethane	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
1,1,2-Trichloro-ethane	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
1,1,2,2-Tetrachloro-ethane	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
1,2-Dichloropropane	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
1,2-trans-Dichloro-ethylene	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
2-Chloroethyl Vinyl Ether (Mixed)	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Bromodichloromethane	Raw Sew/influent	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) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the influent sample for the priority pollutant scan shall be collected to coincide with the effluent and sludge monitoring for the priority pollutants.

Table III - C - 1: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Vinyl Chloride	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Trichloroethylene	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Chloroethane	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Parachloro-m-cresol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Phenols	Raw Sew/influent	REPORT	UG/L	Grab	January thru December
Delta BHC, Total (ug/l)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Endosulfan Sulfate	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Beta Endosulfan	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Alpha Endosulfan	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Endrin Aldehyde	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1016 (Arochlor 1016)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
4,4'-DDT(p,p'-DDT)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
4,4'-DDD(p,p'-DDD)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
4,4'-DDE(p,p'-DDE)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Aldrin	Raw Sew/influent	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) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the influent sample for the priority pollutant scan shall be collected to coincide with the effluent and sludge monitoring for the priority pollutants.

Table III - C - 1: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Alpha BHC	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Beta BHC	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Gamma BHC (lindane),	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Chlordane	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Dieldrin	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Endrin	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Toxaphene	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Heptachlor	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Heptachlor Epoxide	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1221 (Arochlor 1221)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1232 (Arochlor 1232)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1242 (Arochlor 1242)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1248 (Arochlor 1248)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1254 (Arochlor 1254)	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1260 (Arochlor 1260)	Raw Sew/influent	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) Pursuant to N.J.A.C. 7:14A-19.3(c)7.i, the influent sample for the priority pollutant scan shall be collected to coincide with the effluent and sludge monitoring for the priority pollutants.

Table III - C - 1: Surface Water WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 01/01/2025 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
2-Chlorophenol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
2-Nitrophenol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dichlorophenol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dimethylphenol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dinitrophenol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
2,4,6-Trichloro-phenol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
4-Chlorophenyl phenyl ether	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
4-Nitrophenol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
4,6-Dinitro-o-cresol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Phenol Single Compound	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December
Pentachlorophenol	Raw Sew/influent	REPORT	UG/L	24 Hour Composite	January thru December

PART IV

SPECIFIC REQUIREMENTS: NARRATIVE

Notes and Definitions

A. Footnotes

1. These notes are specific to this permit

a. The permit conditions in the CSO section apply only to the combined sewer system owned/operated by the permittee and related CSO discharges.

2. CSO related resources are listed below with a link to the current webpage

a. NJDEP's CSO main website and related links can be found at http://www.nj.gov/dep/dwq/cso.htm

b. EPA's Combined Sewer Overflows Principal Guidance Documents can be found at http://water.epa.gov/polwaste/npdes/cso/Guidance-Documents.cfm

c. The Nine Minimum Control requirements from the National CSO Policy along with EPA's guidance document can be found at N.J.A.C. 7:14A-11.12-Appendix C and http://www.epa.gov/npdes/pubs/owm0030.pdf

d. The Nine elements of a Long Term Control Plan from the National CSO Policy along with EPA's guidance document can be found at N.J.A.C. 7:14A-11.12-Appendix C and http://water.epa.gov/polwaste/npdes/cso/upload/owm0272.pdf.

e. EPA's Post Construction Compliance Monitoring Guidance document can be found at http://www.epa.gov/npdes/pubs/final_cso_pccm_guidance.pdf

f. EPA's Guidance: Coordinating Combined Sewer Overflow (CSO) Long-Term Planning with Water Quality Standards Reviews (PDF)

g. EPA's Capacity, management, operation and maintenance (CMOM) guidance document can be found at http://www.epa.gov/npdes/pubs/cmom_5.pdf

h. Dry-Weather Deposition and Flushing for Combined Sewer Overflow Pollution Control: http://nepis.epa.gov/Adobe/PDF/30000821.PDF

i. Combined sewer overflow control (manual): http://nepis.epa.gov/Adobe/PDF/30004MAO.pdf

j. EPA's Storm Water and Combined Sewer Overflows Publications can be found at http://water.epa.gov/polwaste/wastewater/StormwaterPubs.cfm

B. Definitions

1. These definitions are specific only to this permit

a. “Dry weather overflow (DWO)” means a combined sewer overflow that cannot be attributed to a precipitation event, including snow melt, within the hydraulically connected system. DWOs include the following flows: domestic sewage, dewatering activities, commercial and industrial wastewaters, ground water and tidal infiltration upstream of the regulator, and any other non-precipitation event related flows downstream of the regulator to the outfall pipe.

   Groundwater infiltration and tidal infiltration originating downstream of the regulator are allowable sources of discharges from a CSO during dry weather. On a case-by-case basis, the Department reserves the right to allow temporary use of the CSO outfall structures for other types of discharges to address extraordinary circumstances. Such use must be specifically approved by the Department.

b. "Green Infrastructure" means methods of stormwater management that reduce wet weather/stormwater volume, flow, or changes the characteristics of the flow into combined or separate sanitary or storm sewers, or surface waters, by allowing the stormwater to infiltrate, to be treated by vegetation or by soils; or to be stored for reuse. Green infrastructure includes, but is not limited to, pervious paving, bioretention basins, vegetated swales, and cisterns

c. "Hydraulically connected system" means the entire collection system that conveys flows to one Sewage Treatment Plant (STP). On a case-by-case basis, the permittee, in consultation with the Department, may segment a larger hydraulically connected system into a series of smaller inter-connected systems, based upon the specific nature of the sewer system layout, pump stations, gradients, locations of CSOs and other physical features which support such a sub area. A hydraulically connected system could include multiple municipalities, comprised of both combined and separate sewers

C. NINE MINIMUM CONTROL REQUIREMENTS

1. **Proper operation and regular maintenance programs for the sewer system and the CSOs**
2. **Maximum use of the collection system for storage**
3. **Review and modification of pretreatment requirements to assure CSO impacts are minimized**
4. **Maximization of flow to the POTW for treatment**
5. **Prohibition of CSOs during dry weather**
6. **Control of solid and floatable materials in CSOs**
7. **Pollution prevention**
8. **Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts**
9. **Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls**

D. NINE ELEMENTS OF THE LONG TERM CONTROL PLAN

1. **Characterization, Monitoring, and Modeling of the Combined Sewer Systems**
2. **Public Participation**
3. **Consideration of Sensitive Areas**

4. **Evaluation of Alternatives**
5. **Cost/Performance Considerations**
6. **Operational Plan**
7. **Maximizing Treatment at the Existing POTW Treatment Plant**
8. **Implementation Schedule**
9. **Compliance Monitoring Program**

Sanitary Wastewater (IP)

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 a 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.

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

Sanitary Wastewater (IP)

a. 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 CPO, 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: Southern Bureau of Water Compliance and Enforcement
One Port Center
2 Riverside Drive, Suite 201
Camden, New Jersey 08103

3. Delaware River Basin PCB Requirements

a. On December 15, 2003, the U.S. EPA, Regions 2 and 3, adopted a Total Maximum Daily Load (TMDL) for PCBs for Zones 2, 3, 4, and 5 of the tidal Delaware River. On December 15, 2006, the U.S. EPA, Regions 2 and 3, adopted a Total Maximum Daily Load (TMDL) for PCBs for Zone 6 (Delaware Bay). The TMDLs require the facilities identified as discharging PCBs to these zones of the Delaware River or to the tidal portions of tributaries to these zones to conduct monitoring for 209 PCB congeners, and prepare and implement a PCB Pollutant Minimization Plan (PMP).

b. Subsequent monitoring required by DRBC in 2005 confirmed the presence of PCBs, and indicates that this facility contributes to 99% of the cumulative loadings from all point sources. Therefore, the permittee shall collect two samples annually during a wet weather flow and two samples annually during a dry weather flow. The samples shall be collected from Outfall DSN 001A for dry weather and wet weather sampling.

c. All sample analyses shall be performed using EPA Method 1668A, Revision A: Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by HRGC/HRMS. EPA-821-R-00-002, December 1999 as supplemented or amended, and results for all 209 PCB congeners shall be reported. Project-specific, sample collection protocols, analytical procedures, and reporting requirements at https://www.state.nj.us/drbc/programs/quality/pcb-monitoring.html shall be followed.

d. In accordance with the U.S. EPA Regions 2 and 3 Total Maximum Daily Loads (TMDLs) for PCBs for Zones 2-6 of the Tidal Delaware River, the permittee submitted a Pollutant Minimization Plan (PMP) for PCBs which was approved on June 23, 2007. The permittee shall continue to comply with the requirements of Section 4.30.9 of DRBC's Water Quality Regulations. Therefore, the permittee shall:.

   i. Continue to implement the PMP to achieve PCB loading reduction goals, and;

   ii. Submit an Annual Report on the yearly anniversary of the commencement of the PMP to DRBC and the Department consistent with the guidance specified at http://www.state.nj.us/drbc/programs/quality/pmp.html.

e. The PMP Annual Report (pdf*) and PCB data shall be submitted together to the DRBC. The permittee shall send only the PMP Annual Reports to the Department.
PCB data submitted to the DRBC shall be submitted digitally in accordance with Electronic Data Deliverable (EDD) format protocols (specified at https://www.state.nj.us/drbc/library/documents/PCB-EDD.pdf) along with analytical result summaries from the laboratory showing individual congener results. The full laboratory data package shall be retained for five years and made available upon request. PCB data and reports shall be submitted as follows. PCB reports containing maps greater than 11” x 17” shall also be submitted in hardcopy to DRBC at the address below:.

   i. For PCB data and Annual Reports to the DRBC: PCB_PMP@drbc.gov; or delivery (flash drive) to:
   Delaware River Basin Commission
   Science and Water Quality Management
   25 Cosey Road, P.O. Box 7360
   West Trenton, NJ 08628-0360

   ii. drbcpcbreports@dep.nj.gov

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.

2. Delaware River Basin Commission (DRBC)

a. The permittee shall comply with the Delaware River Basin Commission (DRBC) "Water Quality Regulations."

b. The Delaware River Basin Commission (DRBC) 20-day Carbonaceous Biochemical (first-stage) Oxygen Demand (CBOD 20) wasteload allocation of 24,200 pounds per day as a monthly average value, (equivalent to the monthly average CBOD5 mass effluent limit, in Part III) shall not be exceeded. The CBOD 20 effluent value may be calculated by multiplying the measured effluent CBOD5 by a CBOD 20/CBOD5 default mass ratio of 1.7.

c. Except as otherwise authorized by this permit, if the permittee seeks relief from any limitation based upon a Delaware River Basin Commission water quality standard or minimum treatment requirement, the permittee shall apply for approval from the Delaware River Basin Commission Executive Director and NJDEP for a permit revision.

d. The permittee may conduct a study to determine if specific conductance may be substituted for TDS in the permit. The study should include effluent specific data to be used to determine a correlation between TDS and specific conductance. Upon review, the Delaware River Basin Commission will determine if the permit may be modified to allow the substitution of specific conductance for TDS monitoring. The TDS limit would then be supplanted by a specific conductance limit in the permit.

e. In accordance with DRBC regulations, the permittee is permitted to treat and discharge wastewater as established in the approved sewer service area as set forth in the permittee's application, to the extent consistent with all conditions of the permit. Prior to accepting for treatment and discharge 6.5 million gallons per day (as a daily average) of wastewater that is imported from outside the Delaware River Basin, the permittee shall first apply to and obtain approval from the DRBC.

f. Based upon the written recommendation of the DRBC staff, when the discharge is operated in accordance with the provisions and conditions established by this permit, then with respect to effluent quality and stream quality objectives, the project does not substantially impair or conflict with the Commission's Comprehensive Plan.

3. Applicability of Discharge Limitations and Effective Dates

a. Surface Water Discharge Monitoring Report (DMR) Form Requirements

i. This permit includes multiple phases for DSN 001A.
The 1-Initial limitation and monitoring conditions are effective from the effective date of the permit (EDP) until EDP + 3 years. 2-Interim limitation and monitoring conditions become effective on EDP + 3 years.

This permit also includes requirements for when bypass operations begin as the 3-Final Phase. Before the 3-Final can be activated, a Treatment Works Approval (TWA) is required and any necessary construction must be completed.
The application forms and a checklist for a TWA can be found on the Department's website at https://www.nj.gov/dep/dwq/forms_twa.htm. The permittee shall submit a request to the Department's Bureau of Surface Water and Pretreatment Permitting at least 30 calendar days prior to commencing bypass operations in order to activate the 3-Final Phase.

b. Wastewater Characterization Report (WCR) Form Requirements

i. The final effluent monitoring conditions contained in PART III for DSN 001A apply for the full term of this permit action.

4. 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).

5. 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 semi-annual monitoring period beginning from the effective date of the permit (EDP).

i. Test reports shall be submitted to:

   i. biomonitoring@dep.nj.gov

   ii. Toxicity@drbc.gov

6. 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 exceedance 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 exceedance 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

7. 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.

8. Inactive RWBR Requirements

a. The following RWBR sections are included in this permit for various reuse applications. For any RWBR category where a reuse application does not show a status of Approved in Appendix B, these sections are inactive and not effective until a permit action where Appendix B shows that an application under this category is approved. Any specific RWBR category 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. Those sections related to a RWBR category where an application in Appendix B shows a status of Approved are effective on the effective date of the permit.

9. 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. Chlorine Produced Oxidants (CPO): If the permittee disinfects utilizing chlorine, an instantaneous minimum of 1.0 mg/L after fifteen minutes contact time at peak hourly flow must be met.

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 chlorine disinfection, monitoring for CPO shall be continuous and shall be monitored after the appropriate contact time is achieved.

   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 chlorine is used for disinfection, the lowest sampling result obtained during the reporting month shall be reported for CPO.

10. 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 a 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. Fecal Coliform: 200 colonies per 100 ml monthly average Geometric Mean, 400 colonies per 100 ml maximum in any one sample. Frequency of sampling for Fecal Coliform shall be in accordance with Part III of this permit. The sample shall be collected as a grab sample taken immediately after disinfection.

f. Chlorine Produced Oxidants (CPO): For chlorine disinfection, instantaneous minimum of 1.0 mg/L after fifteen minutes contact time at peak hourly flow. Frequency of sampling for CPO shall be in accordance with Part III of this permit. The sample shall be collected as a grab sample taken immediately after disinfection. The value reported for CPO shall be the minimum sampling result obtained during the reporting month for diverted RWBR. Chlorine Produced Oxidants (CPO) shall be monitored after the appropriate contact time is achieved.

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.

11. 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. Fecal Coliform: 200 colonies per 100 ml monthly average Geometric Mean, 400 colonies per 100 ml maximum in any one sample. Frequency of sampling for Fecal Coliform shall be in accordance with Part III of this permit. Fecal coliform shall be monitored immediately after disinfection. This requirement does not apply to sanitary sewer jetting.

12. 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.

13. RWBR Submittal Requirements

a. For Public Access RWBR, the permittee shall submit and receive approval of an Operations Protocol or modify the existing Operations Protocol 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 this/these type/s of RWBR activity. A copy of the approved Operations Protocol shall be maintained onsite. Specific requirements for the Operations Protocol are identified in the Reuse Technical Manual.

b. 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 this/these type/s 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.

c. 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.

d. 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.

e. Submit a Beneficial Reuse Annual Report: by February 1 of each year beginning from the effective date of the permit (EDP).

f. 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 this/these type/s 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.

g. 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 and Pretreatment Permitting , P.O. Box 420, Trenton, New Jersey 08625-0420.

14. 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.

E. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

1. General Requirements

a. The Permittee has developed an industrial pretreatment program pursuant to the General Pretreatment Regulations 40 CFR Part 403 and N.J.A.C. 7:14A-1 et seq. The Permittee shall implement and enforce its approved pretreatment program to prevent the introduction of pollutants into its system which would:

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.

b. The Permittee shall comply with the public participation and notification requirements, including but not limited to, those specified in N.J.A.C. 7:14A-19.10, and 40 CFR Part 25.

c. The Permittee shall secure and maintain sufficient resources and qualified personnel to carry out the program implementation procedures described in this permit.

2. Identify and Locate Industrial Users

a. The Permittee shall update its inventory of indirect users at a frequency and diligence adequate to ensure proper identification of indirect users subject to pretreatment standards, appropriate characterization of the nature of their discharges, and correct designation of indirect users as categorical, significant/major, or other regulated. At a minimum, this inventory shall be updated annually and shall be included in the Pretreatment Program 40 CFR Part 403 Annual Report.

b. The Permittee shall notify an indirect user of pretreatment standards and requirements within thirty (30) days of the determination of the indirect user being subject to regulation under the pretreatment program.

3. Program Modifications

a. The Permittee shall notify the Bureau of Surface Water and Pretreatment Permitting (BSWPP) of all substantial industrial pretreatment program (IPP) modifications, as defined under 40 CFR 403.18(b), and comply with the program modification requirements under N.J.A.C. 7:14A-19.9. The Permittee must await formal approval from the BSWPP before implementing substantial program modifications.

b. For non-substantial program modifications, the Permittee shall provide to the BSWPP the information required under N.J.A.C. 7:14A-19.9(b). The Permittee, as required by 40 CFR 403.18(d)(1), must submit this information to the BSWPP at least 45 days prior to implementation. Modifications that are not considered substantial are deemed approved unless the Department notifies the Permittee within 45 days that the modifications are not approved.

4. Develop Local Limits

a. The Permittee has developed and shall enforce local limits as required by N.J.A.C. 7:14A-19.7.

b. The Permittee shall submit a written technical evaluation of the need to revise local limits as required under N.J.A.C. 7:14A-19.7(f).

c. The written technical evalulation required in b. above shall be submitted: within 6 months from the effective date of the permit (EDP).

5. Issue IPP Permits

a. The Permittee must issue an individual IPP Permit to those facilities which are classified as Significant Industrial Users as defined in the Camden County Municipal Authority's Sewer Use Ordinance.

b. These individual IPP Permits must contain the minimum requirements as specified under N.J.A.C. 7:14A-19.8(b).

c. The Permittee shall issue a draft IPP Permit to a newly identified (i.e. currently discharging) Significant Industrial User within 180 days of identifying that IU.

d. New Significant Industrial Users shall receive an IPP Permit prior to commencement of discharge.

e. The Permittee shall issue or reissue the IPP Permits, in absence of litigation and/or enforcement action(s) initiated by the Permittee, within one hundred and eighty (180) days of the expiration date of the IPP Permit previously issued to an existing industrial user.

6. Perform Compliance Monitoring and Inspections

a. The Permittee shall randomly inspect indirect users and randomly sample and analyze indirect user effluents at a frequency commensurate with the character, consistency, and volume of the contribution. However, the frequency of sampling shall be adequate to determine the compliance status of the indirect user exclusive of self-monitoring data submitted by the user. Specifically, the frequency of inspection and sampling of all Significant Industrial Users, as defined by Camden County Municipal Utilities Authority's Sewer Use Ordinance, shall be no less than once per year for inspection and no less than once per year for sampling. Also, in accordance with N.J.A.C. 7:14A-19.6(a)1, facilities which have an IPP permit from the POTW but do not meet the POTW's definition of Significant Industrial User, and are not CIUs, must be inspected by the POTW once per year and must be sampled by the POTW at least once every three (3) years.

b. Sample collection and analysis and the gathering of other compliance data shall be performed with sufficient care to produce evidence admissible in judicial enforcement proceedings.

7. Take Enforcement Actions

a. The permittee shall take enforcement actions based upon indirect users' noncompliance in accordance with its approved enforcement response plan.

8. Perform Data Management and Record Keeping

a. The Permittee shall develop and maintain a data management system which includes industrial user inventory, characterization of discharge, compliance status, IPP permit status, and enforcement actions.

b. The Permittee shall retain for a minimum of five (5) years all records of monitoring activities and results (whether or not such activities are required by this permit) and shall make such records available to EPA and the State upon request.

9. Notification Requirements

a. The Permittee shall notify its significant industrial users in writing of their obligation to comply with applicable requirements under Subtitles C and D of the Resource Conservation and Recovery Act (RCRA).

10. Pretreatment Annual Report

a. The Permittee shall submit a report annually to the Bureau of Surface Water and Pretreatment Permitting describing the Permittee's pretreatment activities for the twelve (12) month period from July 1 through June 30. In the event that the Permittee is not in compliance with any conditions or requirements of the approved industrial Pretreatment program, the Permittee shall also include the reason for noncompliance and state how and when the Permittee shall comply with such conditions and requirements.

b. Submit the Annual Pretreatment Program Report: by August 1 of each year beginning from the effective date of the permit (EDP) This report shall contain the following:.

i. a summary of analytical results of the pollutants molybdenum (Mo), ammonia (NH3), phosphorus (P), and the priority pollutant scans performed on the Delegated Local Agency's (DLA) influent, effluent, and sludge during the annual reporting period noted in (a) above.

ii. a discussion of upset, interference, or pass through incidents, if any, at the DLA treatment plant(s) which the Permittee knows or suspects were caused by indirect users of the DLA system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken, and, if known, the name and address of the indirect user(s) responsible;

iii. an updated list of the Permittee's industrial users including their names and addresses, and a list of deletions and additions. The Permittee shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to Federal categorical standards and which set(s) of standards are applicable; significant/major non-categorical IUs (as defined by the DLA); and other regulated non-categorical industries. The Permittee shall characterize the compliance status of each industrial user with respect to the discharge limitations and reporting requirements;

iv. a summary of the inspection and sampling activities conducted by the Permittee during the period covered by the annual report to gather information and data regarding industrial users;

v. a summary of the compliance and enforcement activities during the period covered by the annual report. The summary shall include administrative and legal/judicial actions initiated by the permittee during the period noted;

vi. a description of any significant changes in operating the pretreatment program which differ from the information in the Permittee's approved DLA pretreatment program including, but not limited to, changes concerning:
(1) the program's administrative structure
(2) local industrial discharge limitations
(3) monitoring program or monitoring frequencies
(4) Legal authority or enforcement policy
(5) funding mechanisms
(6) resource requirements
(7) staffing levels;

vii. a summary of the annual pretreatment funding, including salaries (as a lump sum), analytical costs for both in-house and contract analyses, equipment costs, and other expenditures associates with implementation of the pretreatment program. The Permittee must also provide a manpower estimate in full-time equivalents (FTEs);

viii. a summary of public participation activities to involve and inform the public. This shall include a copy of the annual publication of significant non-compliance, if such publication was needed to comply with N.J.A.C. 7:14A-19.10(b); and

ix. other information as required and described in the NJDEP 403 Annual Report Guidance.

x. Two copies of the Pretreatment Program Annual Report shall be submitted to the BSWPP in the form prescribed in that guidance. The reports shall be submitted to:
NJDEP, Mail Code - 401-02B
Bureau of Surface Water and Pretreatment Permitting
401 E. State Street
P.O. Box 420
Trenton, N.J. 08625-0420.

11. CWEA Annual Report

a. The Permittee must submit information required by N.J.A.C. 7:14A-19.6(c), (d) and (e) pertaining to the implementation of the DLA's approved pretreatment program.

b. Submit the CWEA Annual Report: by February 1 of each year beginning from the effective date of the permit (EDP).

c. Two copies of this report shall be submitted to:
NJDEP, Mail Code 401-02B, Bureau of Surface Water and Pretreatment Permitting
401 E. State Street
P.O. Box 420
Trenton, N.J. 08625-0420.

12. Grace Period Annual Report

a. The permittee must submit the information required by N.J.A.C. 7:14A-19.6(h) and (i) pertaining to implementation of the DLA's approved pretreatment program.

b. Submit the Grace Period Annual Report: by March 1 of each year beginning from the effective date of the permit (EDP).

c. Two copies of this report shall be submitted to:
NJDEP, Mail Code 401-02B, Bureau of Surface Water and Pretreatment Permitting
401 E. State Street
P.O. Box 420
Trenton, N.J. 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.

3. Removal or Modification of Final WQBELs or Criteria End-of-Pipe Effluent Limitations for Chemical Specific Toxic Pollutants

a. The Department will consider proposing to remove or modify a toxic pollutant's newly imposed final effluent limitation from the permit if any or all of the information in item "b" below is submitted for Departmental review and consideration.

b. Items that will be considered include, but are not limited to:

i. Submission of additional effluent data (minimum of 2.5 consecutive years of monthly data) 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).

ii. Acceptable site-specific ambient data (e.g. hardness, pollutant specific data) collected in accordance with a NJDEP approved work plan.

iii. Acceptable site-specific translator values developed in accordance with a NJDEP approved work plan.

iv. Acceptable site-specific criteria developed in accordance with a NJDEP approved work plan.

v. Updated 1Q10, 7Q10, 75th percentile, and/or other appropriate stream flow values where applicable.

vi. Updated regulatory mixing zone dilution factors where applicable.

c. All studies require a NJDEP approved workplan that shall be submitted to the Department for approval on or before the effective date of the permit (EDP) + 6 months.

i. It is recommended that all ambient monitoring associated with the establishment of hardness values, pollutant concentrations, and site specific translator values be conducted under the confines of a single work plan.

d. All final study reports and/or additional information shall be submitted to the Department on or before EDP + 30 months.

e. The Department will review all submitted information and will either propose a permit action to remove/modify the final effluent limitation(s) or deny the modification request.

G. Custom Requirement

1. Acceptance of Wet Weather Flow in Excess of Permitted Flow

a. The permittee is authorized to accept wet weather flows in excess of the NJPDES permitted flow of 80 MGD up to the hydraulic capacity of the treatment plant (185 MGD) in order to maximize the treatment of wet weather flows as well as to reduce the frequency and volume of combined sewer overflow discharges to the affected receiving waterbodies while also reducing flooding in the City of Camden. These excess flows must receive full treatment and bypass of any treatment is not authorized by this permit.

2. Bypass as a CSO Measure

a. This permit renewal serves to concur with the selection of CSO related bypass as a CSO control measure. As such, effluent limitations that apply to a bypass of secondary treatment are included in the final phase of Part III. In addition, the following conditions shall be met:.

i. Bypass is prohibited unless and until a Treatment Works Approval is issued for the construction and operation of the bypass line. If issued, operation of the bypass must comply with the terms and conditions of this NJPDES permit and the Treatment Works Approval.

ii. As part of the use of the bypass line, bypassing of the secondary treatment is prohibited except during wet weather events when influent flows exceed 185 MGD as an instantaneous flow. All bypassed flows shall receive at least screening, primary clarification and then disinfection. All bypassed flows shall be combined with fully treated effluent flow prior to discharge.

iii. All applicable effluent limitations and monitoring conditions included in this permit for DSN 001A are required to be met at all times including during wet weather bypassing events using the TWA approved bypass line.

iv. At any time that this bypass occurs during a calendar day, whether for the entire day or a portion of that day, the Duration of Discharge shall be reported as one day for outfall DSN 001A. In the event that the bypass line is utilized sporadically throughout a 24-hour period, that shall also be reported as one day for outfall DSN 001A.

v. The permittee shall continuously meter flow for any flows into the plant and report it on the DMR form under the parameter "Flow, In Conduit or Thru Treatment Plant" as "Raw Sew/Influent" for DSN 001A.

vi. Total Flow (Bypass) serves to represent an approximate amount of volume that would otherwise be discharged via Combined Sewer Overflows (CSOs) but now receives primary treatment and must be reported on the DMR.

vii. Approval of the bypass and the conditions on the use of the bypass may be modified or terminated by the Department via a subsequent permit action under N.J.A.C. 7:14A-16.4 for cause such as if there is a substantial increase in the volume or character of pollutants being introduced to the WWTP.

3. Notification of Bypass

a. The permittee shall notify the Department of bypass events by submission of Discharge Monitoring Reports. Such notification serves to meet the intent of the notice requirements of 40 CFR 122.41(m)(3). By granting this approval through a permit action, the permittee is not required to notify the Department of every individual bypass event if it complies with the notification requirements contained in this NJPDES permit.

Combined Sewer Management (IP)

A. MONITORING REQUIREMENTS

1. CSO Monitoring Requirements

a. All monitoring shall be conducted as specified in Part III.

b. All monitoring 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.

c. Discharges shall be directly monitored or predicted using a DEP approved up-to-date model.

B. RECORDKEEPING

1. Recordkeeping Requirements

a. The permittee shall identify the Combined Sewer System (CSS) complaint, maintenance, inspection, and repair documentation forms and related tracking forms and/or systems and the Permittee shall also specify how, where and when this documentation will be maintained.

b. The permittee shall retain records of all monitoring information for a period of at least 5 years, or longer as required by N.J.A.C. 7:14A-20, from the date of the sample, measurement, report, application or record, including:

i. all calibration and any other methods of monitoring which may be employed, maintenance records and all original strip chart recordings for continuous monitoring instrumentation (if applicable),

ii. copies of all reports required by this NJPDES permit,

iii. all data used to complete the application for a NJPDES permit, and

iv. monitoring information required by the permit related to the permittee's residual use and/or disposal practices, for a period of at least 5 years, or longer as required by N.J.A.C. 7:14A-20, from the date of the sample, measurement, report, application or record.

c. Records of monitoring information shall include the following:

i. the date, locations, and time of sampling or measurements,

ii. the individual(s) who performed the sampling or measurements,

iii. the date(s) the analyses were performed,

iv. the individual(s) who performed the analyses,

v. the analytical techniques or methods used, and

vi. the results of such analyses.

d. The permittee shall retain records to document implementation of the Nine Minimum Controls (NMC) and Long Term Control Plan (LTCP) requirements in Sections F and G. The permittee shall utilize this information when preparing and submitting progress reports required in Section D, including residential complaints, inspection records, and maintenance records. This information shall be made available to the Department upon request.

C. REPORTING

1. Reporting Requirements

a. The permittee shall submit all required monitoring results to the Department on the forms provided by the Department. The Monitoring Report Forms (MRFs) are provided to the permittee in an electronic file format.

b. The permittee shall summarize the information for the total quantity of solids/floatables removed from ALL outfalls on the MRF for the first CSO outfall only. This information needs to be reported on the MRF only when the solids/floatables solid waste is measured for disposal. For the months when no solids/floatables are disposed of, the permittee shall report 'CODE = N'.

c. The permittee shall report Precipitation from a rain gauge representative of the area on the MRF for the first CSO outfall only.

d. The permittee shall report Duration of Discharge on the MRF for each CSO outfall as a whole day for any calendar day when a discharge occurs.

e. Electronic data submissions shall be in accordance with the guidelines and provisions outlined in the Department's Electronic Data Interchange (EDI) agreement with the permittee.

f. All MRFs shall be certified by the highest ranking official having day-to-day managerial and operational responsibilities for the combined sewer system.

g. The highest ranking official may delegate responsibility to certify the MRFs in his or her absence. Authorizations for other individuals to sign shall be made in accordance with N.J.A.C. 7:14A-4.9(b).

h. Monitoring results shall be submitted in accordance with the current Monitoring Report Form Manual and any updates thereof.

i. If there are no CSO discharges during an entire monitoring period, the permittee must notify the Department when submitting the monitoring results. This is accomplished by placing a check mark in the "No Discharge this monitoring period" box on the electronic version of the monitoring report submittal form.

D. SUBMITTALS

1. CSO Submittal Requirements

a. The permittee shall respond to all deficiencies cited by the Department within 30 days of notification. With adequate justification provided by the permittee, the Department may extend this deadline an additional 30 days.

b. All reports submitted to the Department pursuant to the requirements of this permit shall comply with the signatory requirements of N.J.A.C. 7:14A-4.9., and contain the following certification (or such revised form as previously approved in writing by the Department):

i. I certify under penalty of law that those portions of this document relating to the treatment and collection system owned and operated by the permittee and all attachments related thereto were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system owned and operated by the permittee, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information.

c. Since multiple municipalities own separate portions of the hydraulically connected sewer system, the permittee shall work cooperatively with all other appropriate municipalities/permittees in the hydraulically connected sewer system to ensure that the Nine Minimum Controls (NMC) & Long Term Control Plans (LTCP) activities are being developed and implemented consistently. The permittee shall identify their joint and separate responsibilities with all other appropriate municipalities in the hydraulically connected sewer system regarding implementation of the NMCs and LTCPs. This information shall be provided/updated in the Progress Reports.

d. The permittee shall summarize on a semiannual basis its CSO construction related activities, as well as those reported to them by the other CSO entities, in their system. Notification through the TWA process is sufficient for this purpose. The permittee shall make these construction related activities available publicly on their website or other acceptable means.

e. The permittee shall submit all information required by this permit via email or other electronic format acceptable to the Department to NJCSOProgram@dep.nj.gov.

2. CSO Progress Report Submittal Requirements

a. The permittee shall submit a progress report on February 1st and August 1st of every year beginning from the effective date of the permit. The Progress Reports shall be prepared in accordance with the following requirements:.

i. The Progress Report shall include a summary of all CSO control measures implemented to date and the effectiveness of those control measures.

ii. Each Progress Report must include a verification that the Operation and Maintenance Manual, including the SOPs, Asset Management Plan and Emergency Plan, have been updated in accordance with this permit and amended annually, as necessary. Detail shall also be provided regarding the System Cleaning Program.

iii. A discussion of the continued implementation of the NMCs including maintenance of the telephone hotline/website pursuant to Section F.8.

iv. Each Progress Report shall include a list of any complaints received by the permittee regarding CSO related flooding including location and duration.

3. LTCP Amendment

a. As set forth herein and in an Administrative Compliance Agreement (ACA) executed between the Department and the Permittees dated November 1, 2024, the Permittees (CCMUA, the City of Camden, and Gloucester City) shall submit a joint amendment to the September 2020 (last revised September 2023) ("Joint LTCP") LTCP within 180 days of the expiration date of the permit in accordance with the terms below. The LTCP Amendment shall be submitted as an attachment to the NJPDES permit renewal application. The LTCP Amendment must be approvable, consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C, and outline CSO control strategies to identify the capture of a minimum of 85% of the annual average combined sewage collected in the system during wet weather.

b. The Permittees shall jointly take the following actions:.

   i. Complete the restoration of the hydraulic capacity of the CSS through a comprehensive sewer and outfall cleaning and rehabilitation program as set forth in Part IV.G.8.b. of the Permittees' NJPDES CSO permits,.

   ii. Consistent with Section 7.3 of the Joint LTCP, a flow monitoring program shall be implemented to update the modeling results obtained as part of the 2018 System Characterization Report. The flow monitoring program, including the time period for flow metering, must be approved by NJDEP in writing. The contributions and impacts of wet weather flows into the CSS which are attributable to the thirty-four separately sewered municipalities within the CCMUA sewer service area will be ascertained using data from the CCMUA's permanent flow meters within its regional interceptor sewer system, augmented by additional flow monitors and other data sources to be included in the flow monitoring program developed by the Permittees and approved by the Department. This data shall be used to perform a continuous simulation of the calibrated/validated H&H model using the system-wide annual average as identified in Section 6.0 of the 2018 System Characterization Report as approved by the Department on January 24, 2019,.

   iii. Consistent with Section 5.2.3 of the Joint LTCP and Part IV.F.1.h.xii of the Permittees' NJPDES CSO permits, determine the aggregate amount of I&I contributed to the CSS by the thirty-four (34) separately sewered towns within the CCMUA sewer service area. This determination shall be completed through the flow monitoring program and model update referenced in Part IV.D.3.b.ii above; and.

   iv. Utilize updated modeling results arrived at in accordance with Part IV.D.3.b.ii above, to evaluate what structural control alternatives (CSO satellite or storage controls) are necessary to capture a minimum of 85% of the annual average combined sewage collected system-wide during wet weather consistent with the FCSO Policy.

c. Based on the actions set forth in Part IV.D.3.b above, the Permittees shall jointly amend the Joint LTCP to include the following ("LTCP Amendment"):.

   i. The results of the flow monitoring program and the results of the re-evaluation of the H&H model, both of which shall, consistent with Section 5.2.3 of the Joint LTCP, incorporate the results of Part IV.D.3.b.iii and iv above,.

   ii. Based on the post cleaning flow monitoring and H&H model update, the Permittees must provide an analysis that will include final planning, sizing of, and scheduling for the implementation of the structural control facilities (CSO satellite or storage controls) consistent with Section 7.7 of the Joint LTCP. The updated analysis must include detailed planning, design, and construction schedules; and.

iii. Revisions to Section 7.7 and Section 8.2, subsections ten (10) and eleven (11) of the Joint LTCP to include all structural control facilities (CSO satellite or storage controls) necessary to capture a minimum of 85% of the annual average combined sewage collected system-wide during wet weather consistent with the FCSO Policy. These revisions to the Implementation Schedule shall be based on the results of Part IV.D.3.c.i above.

d. Only those components of the Joint LTCP listed in Part IV.D.3.c above are subject to amendment through the LTCP Amendment.

E. FACILITY MANAGEMENT

1. CSO 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 discharges shall not produce objectionable color or odor in the receiving stream.

d. The permittee's discharges shall not exhibit a visible sheen.

2. Delaware River Basin Commission (DRBC)

a. The permittee shall comply with the Delaware River Basin Commission's (DRBC) “Water Quality Regulations”, where applicable.

F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs

a. The permittee shall operate the treatment works using a licensed operator in accordance with N.J.S.A. 58:11-66(a), N.J.A.C. 7:14A-6.12(b) and N.J.A.C. 7:10A.

b. The permittee shall provide adequate operator staffing for the treatment works.

c. The permittee shall continue to implement and review annually, and update as needed, an Operations & Maintenance (O&M) Program and corresponding Manual, including an Emergency Plan, in accordance with N.J.A.C. 7:14A-6.12, to ensure that the treatment works, including but not limited to collection system, the CSO outfalls, solids/floatables facilities, regulators, and related appurtenances including any green infrastructure which are owned/operated by the permittee are operated and maintained in a manner to achieve compliance with all terms and conditions of this permit.

d. The permittee shall provide documentation that demonstrates that employees were provided with appropriate training to perform the operation and maintenance duties required and to follow the Standard Operating Procedures (SOPs) in the O&M Program and corresponding Manual. This shall include a current training program for the purpose of informing new employees and maintaining training levels for current employees in regards to the CSO O&M Program and corresponding Manual, including safety related concerns.

e. The permittee shall implement an O&M Program & Manual that includes, at a minimum the following:

i. A directory of appropriate O&M staff, including a description of their individual responsibilities and emergency contact information.

ii. A description of the permittee's Fats, Oils and Greases (FOG) Program (if applicable).

iii. Details regarding operations for the treatment works owned/operated by the permittee as set forth in SOPs as described in Part IV.F.1.f, Part IV.F.1.g and Part IV.F.1.h.

iv. An Emergency Plan as described in Part IV.F.1.i.

f. The permittee shall include in the O&M Program and corresponding Manual, a System Cleaning Program to address the following:

i. The System Cleaning Program shall be designed to ensure the entire collection system, including, but not limited to, tide gates, outfalls and regulators, is sufficiently clean in order to function properly and minimize CSO-related street flooding.

ii. The System Cleaning Program shall be designed to ensure that the entire collection system is sufficiently clean which can be accomplished through regular inspection and, if necessary, cleaning. Such inspection and cleaning should be done, such that within five years, the entire system has been covered. Specifically, for CCMUA the total system is 135 miles long. Critical portions of the system, such as regulators, solids/floatables facilities, and tide gates, may benefit even more from frequent inspection.

iii. The System Cleaning Program shall include an annual certification that a minimum of 20% of the system (by linear feet/miles) shall have been inspected and, if necessary, cleaned, within the last year. Alternatively, if less than 20% of the system has been completed within the last year, the certification shall include a statement of how much of the system was inspected and, if necessary, cleaned, within the last year and a plan to ensure that 100% of the system is inspected and if necessary cleaned, by the expiration date of the permit. This is an annual requirement based on the calendar year, due February 1 of the following year and is part of the Operation and Maintenance Manual. The total length of the system in linear/feet shall also be defined. Updates on the System Cleaning Program shall also be provided in Progress Reports.

g. The permittee shall also include SOPs in the O&M Program and corresponding Manual for the operation, inspections, and scheduled preventative maintenance in accordance with the appropriate manufacturer's recommendations and equipment manuals at a minimum, to ensure that the entire collection system that is owned/operated by the permittee that conveys flows to the treatment works will function properly.

h. At a minimum, the SOPs shall contain detailed instructions for system operations, such as frequency of inspections, regular maintenance, and the timely repair, and documentation of such information, of the entire collection system that conveys flows to the treatment works. These SOPs shall include procedures to address the following items:

i. SOPs shall be designed to ensure that the entire collection system owned/operated by the permittee that conveys flows to the treatment works functions in such a way as to not result in sewage overflows (except from designated CSO outfalls) including to basements, streets and other public and private areas, or bottlenecks/constrictions that limit flow in specific areas and prevent the downstream STP treatment capacity from being fully utilized, in accordance with Section F.4.

ii. SOPs shall be designed to ensure that the storage and conveyance of combined sewage to the STP is maximized in accordance with Sections F.2 and F.4.

iii. SOPs shall be designed to ensure that the impacts from SIUs contributing to the CSOs that are owned/operated by the permittee are minimized in accordance with Section F.3.

iv. SOPs shall be designed to ensure there will be no dry weather overflows from any CSO that is owned/operated by the permittee in accordance with Section F.5.

v. SOPs to conduct a visual inspection program of sufficient scope and frequency of the CSS that is owned/operated by the permittee to provide reasonable assurance that unpermitted discharges, obstructions, damage, and DWOs will be discovered.

vi. SOPs shall be designed to ensure the solids/floatables appurtenances that are owned/operated by the permittee will be maintained and the solids/floatables will be removed from the CSO discharge and disposed of properly at such frequency so as not to cause obstructions of flow for any future CSO discharges, in accordance with Part II of this permit and Section F.6.

vii. SOPs designed to prevent the Intrusion upstream due to high tides and/or receiving water flooding into the entire collection system owned/operated by the permittee that conveys flows to the treatment works through proper operation and maintenance.

viii. SOPs designed to provide a gravity sewer and catch basin inspection schedule and clean as necessary for the collection system that is owned/operated by the permittee.

ix. SOPs shall be designed to provide a system for documenting, assessing, tracking, and addressing residential complaints regarding blockages, bottlenecks, flow constrictions, sewer overflows including to basements, streets and other public and private areas, or related incidents for the collection system that is owned/operated by the permittee.

x. Unless written extension is granted by the Department for extraordinary circumstances, the SOP shall be designed to ensure removal within seven (7) calendar days of the permittee becoming aware of any obstructions within the collection system that is owned/operated by the permittee that are directly causing any CSO overflows due to debris, Fats, Oils and Greases and sediment buildup, or other foreign materials.

The SOP shall be designed to ensure removal of any other obstructions that are contributing to overflows due to debris, Fats, Oils and Greases and sediment buildup, or other foreign materials in the collection system owned/operated by the permittee on a scheduled basis as necessary for the proper operation of the system.

xi. Require immediate steps to take corrective action(s) to repair damage and/or structural deterioration, address unpermitted discharges, and eliminate DWOs of the entire collection system owned/operated by the permittee that conveys flows to the treatment works.

xii. Provide reduction strategies to resolve excessive I/I through the identification of I/I sources and the prioritization and implementation of I/I reduction projects within the collection system that is owned/operated by the permittee.

xiii. Provide procedures whereby wet weather flows are maximized for conveyance to the STP.

i. The O&M Manual shall specifically address, at a minimum, the following details for the treatment works' infrastructure owned/operated by CCMUA:
- Normal and Alternate operating positions;
- Start-up, shut-down, and draining procedures;
- Process control;
- Fail-safe features;
- Emergency operating procedures;
- Common operating and control problems;
- Out-of-service procedures;
- Alternate operating procedures;
- Instrumentation and controls;
- Engineering design information;
- Bypass operation procedures; and
- Schedules and procedures of the preventative maintenance program and corrective maintenance procedures, or references to these procedures in the manufacturer's maintenance manuals for the treatment works' infrastructure.

j. The permittee shall also include an Emergency Plan (https://www.nj.gov/dep/dwwq/erp_home.htm) in the O&M Program and corresponding Manual in accordance with N.J.A.C. 7:14A-6.12(d). The Emergency Plan shall provide for, to the maximum extent possible, uninterrupted treatment works operation during emergency conditions using in-house and/or contract based including those emergencies caused by natural disaster; extreme weather events, including those due to climate change; civil disorder; strike; sabotage; faulty maintenance; negligent operation or accident. At a minimum, the Emergency Plan shall include:
- SOPs which ensure the effective operation of the treatment works under emergency conditions, such as extreme weather events and extended periods of no power.
- A Vulnerability Analysis" that estimates the degree to which the treatment works would be adversely affected by each type of emergency situation which could reasonably be expected to occur. A Vulnerability Analysis shall include, but is not limited to, an estimate of the effects of such an emergency upon the following: power supply; communication equipment; supplies; personnel; security and emergency procedures to be followed."

k. The permittee shall review annually the O&M Program & Manual and update it as needed to reflect updated information and changes in the characterization, design, construction, operations, maintenance, Emergency Plan, and SOPs as listed in Section F.1, and include verification that the O&M Program and corresponding Manual has been prepared and updated in accordance with Section D.

l. The permittee shall continue to update an Asset Management Plan (https://www.nj.gov/de/assetmanagement/pdf/asset-management-plan-guidance.pdf), as part of the overall O&M strategy, which shall be updated on an annual basis. The Asset Management Plan shall include the following, at a minimum:
- Five basic components: asset inventory/mapping and condition assessment; level of service; criticality/prioritization assessment; life-cycle costing; and long-term funding strategy of the treatment works.
- Infrastructure inventory with infrastructure repair/replacement needs listed and scheduled according to priority/criticality, that demonstrates the entire collection system owned/operated by the permittee that conveys flows to the treatment works is perpetually and proactively managed with the appropriate resources (capital, staffing, training, supplies, equipment).

2. Maximum use of the collection system for storage

a. The permittee shall continue to use the entire collection system owned/operated by the permittee for in-line storage of sewage for future conveyance to the STP when sewer system flows subside by ensuring that the sewage is retained in the sewer system to the extent practicable to minimize CSO discharges (i.e. volume, frequency and duration), while not creating or increasing sewage overflows, including to basements, streets and other public and private areas.

b. The permittee shall minimize the introduction of sediment and obstructions in the entire collection system owned/operated by the permittee that conveys flows to the treatment works pursuant to Sections F.1. and F.7.

c. The permittee shall operate and maintain the entire collection system owned/operated by the permittee that conveys flows to the treatment works pursuant to Section F.1.

d. The permittee shall identify and implement minor modifications, based on the ongoing evaluations, to enable appropriate segments of the collection system owned/operated by the permittee to store additional wet weather flows to reduce any CSOs until downstream sewers and treatment facilities can adequately convey and treat the flows.

3. Review and modification of pretreatment requirements to assure CSO impacts are minimized

a. For the SIU dischargers upstream of any CSO outfall which is owned/operated by the permittee, the permittee shall: (1) determine the locations of the SIUs; (2) identify the CSO outfalls associated with each of the SIUs; and (3) determine the discharge volume and loading of SIU-permitted parameters for each SIU. In the case of a municipal permittee or non-delegated STP permittee, information to satisfy (1) and (3) shall be obtained from the delegated local agency that regulates the SIU or, if there is no delegated local agency, from the Department. The permittee should take appropriate steps to minimize impacts from SIUs when CSO events are likely to occur. This information shall be used to prioritize O&M activities in portions of the CSS affected by SIU discharges.

b. The permittee shall require SIUs upstream of any CSO outfall which is owned/operated by the Permittee to investigate ways to minimize their discharges during wet weather and report their findings to the permittee.

c. The permittee shall establish agreements with SIUs upstream of any CSO outfall which is owned or operated by the permittee or ordinances specifying that the SIUs (especially for batch discharges, non-continuous dischargers) should restrict discharges to the extent practical during wet weather periods.

4. Maximization of flow to the POTW for treatment

a. The permittee shall continue to operate and maintain the entire collection system owned/operated by the permittee that conveys flows to the treatment works to maximize the conveyance of wastewater to the STP for treatment subject to existing capacity.

b. The permittee shall continue to implement alternatives for increasing flow to the STP.

i. Capacity evaluations of the entire collection system owned/operated by the permittee that conveys flows to the treatment works in accordance with Section F.1.f to determine the maximum amount of flow that can be stored and transported.

ii. Identification of other activities conducted and/or planned to further maximize flow to the POTW.

5. Prohibition of CSOs during dry weather

a. Dry weather overflows (DWOs) are prohibited from any CSO outfall in the entire collection system owned/operated by the permittee.

b. All DWOs must be reported to the Department as incidents of non-compliance in accordance with the requirements at N.J.A.C. 7:14A-6.10(c) and (e), along with a description of the corrective actions taken.

c. The permittee shall inspect the combined sewer system as required under Section F.1 to minimize the potential of DWOs and to abate DWOs that occur.

d. The permittee shall prohibit any connections, including but not limited to construction dewatering, remediation activities or similar activities, downstream of a CSO regulator, that will convey flow to the CSO during dry weather. On a case-by-case basis, the Department reserves the right to allow temporary use of the CSO outfall structures for other types of discharges to address extraordinary circumstances. Any use under this provision must be specifically approved by the Department.

6. Control of Solids/Floatables in CSOs

a. The permittee shall continue to implement measures to capture and remove solids/floatables which cannot pass through a bar screen having a bar or netting spacing of 0.5 inches from all CSOs.

b. The permittee shall not utilize treatment, including mechanical measures used to reduce the particle size of the solids/floatables in the wastewater collection system prior to discharge to the waters of the state to achieve compliance with paragraph F.6.a.

c. The captured debris shall be removed from each solids/floatables control system as necessary to ensure that there will be no flow restrictions during the next CSO discharge event.

d. All captured debris removed from the solids/floatables control system must be disposed of properly at a permitted solid waste facility authorized to accept grit and screening materials from wastewater treatment facilities in accordance with N.J.A.C. 7:14A and Part II of this permit.

7. Implementation of Pollution Prevention Measures

a. The permittee shall continue to encourage municipalities to implement and upgrade pollution prevention measures necessary to prevent and limit contaminants from entering the entire collection system owned/operated by the permittee that conveys flows to the treatment works. Unless demonstrated to the Department to be impracticable measures, shall include, but not be limited to, the following:.

i. Implementation of a regular street cleaning program.

ii. Retrofitting of existing storm drains to meet the standards in Appendix C, where such inlets are in direct contact with repaving, repairing (excluding repair of individual potholes), reconstruction, resurfacing (including top coating or chip sealing with asphalt emulsion or a thin base of hot bitumen) or alterations of facilities owned/operated by the permittee. For exemptions to this standard see "Exemptions" listed in Appendix C.

iii. Implementation of stormwater pollution prevention rules and ordinances.

iv. Implementation of solid waste collection and recycling ordinances.

v. Implementation of public education programs.

b. The permittee shall enforce rules and regulations on illegal connections and unauthorized discharge(s) into the POTW.

8. Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts

a. The permittee shall ensure that CSO Identification Signs are posted and maintained at every CSO outfall location identified in Part III of this permit. The signs shall conform to the following specifications unless alternatives have been approved by the Department.

i. Signs shall be installed in such a manner as to have the same information visible from both the land and from the water, within 100' from the outfall pipe along the shoreline.

ii. Signs shall be at least 18" x 24" and printed with reflective material.

iii. Signs shall be in compliance with applicable local ordinances.

iv. The signs shall depict the following information below:
- Warning, possible sewage overflows during and following wet weather. Contact with water may also cause illness.
- Report dry weather discharge to NJDEP Hotline at 1 (877) 927-6337 (WARN-DEP).
- Report foul odors or unusual discoloration to NJDEP Hotline or (Permittee) at (phone number).
- NJPDES Permit Number NJ0026182.
- Discharge Serial No. (eg. DSN 040A).
- www.state.nj.us/dep/dwq/cso.htm
- Signs that depict symbols prohibiting swimming, fishing and kayaking.

b. The permittee shall continue to employ measures to provide reasonable assurance that the affected public is informed of CSO discharges in a timely manner. These measures shall include, but are not limited to, the items listed below:

i. Posting leaflets/flyers/signs with general information at affected use areas such as beaches, marinas, docks, fishing piers, boat ramps, parks and other public places (within 100 feet of outfall) to inform the public what CSOs are, the location(s) of the CSO outfall(s) and the frequency and nature of the discharges and precautions that should be undertaken for public health/safety and web sites where additional CSO/CSS information can be found.

ii. Notification to all residents by either US Postal Service or email, (with copies sent to the NJDEP) in the permittee's sewer service area. This notification shall provide additional information as to what efforts the permittee has made and plans to continue to undertake to reduce/eliminate the CSOs and related threat to public health. Updated notifications shall be mailed on an annual basis.

iii. The permittee shall maintain on a daily basis a CSO Notification System website to inform interested citizens of CSO discharges that are occurring or have occurred.

9. Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls

a. The permittee shall monitor the CSO discharge events and record the date, "duration of discharge", rainfall, location of rain gauge and quantity of solids/floatables removed for each CSO and discharge event through appropriate modeling or by an appropriately placed flow meter/totaling device, level sensor, or other appropriate measuring device, and report the required information on the MRF as required by Part III of this permit.

G. LONG TERM CONTROL PLAN REQUIREMENTS

1. Characterization Monitoring and Modeling of the Combined Sewer System

a. As required by the 2015 NJPDES CSO permit, CCMUA submitted the "System Characterization Report Work Plan" dated October 2015 and the "System Characterization Report" dated June 2018. The work plan and the System Characterization Report were approved by the Department on August 3, 2016 and January 19, 2019, respectively.

b. The major elements of the sewer system characterization are noted below where additional detail is included on these topics within the report:

i. Rainfall Records;

ii. Combined Sewer System Characterization;

iii. CSO Monitoring; and

iv. Modeling

2. Public Engagement

a. The permittee shall conduct a public engagement process to inform, educate and engage members of the hydraulically connected communities. The goal of this process is to generate participation and collect input from the affected community and interested public.

b. The permittee shall develop a CSO Supplemental Team to serve as a liaison between the affected community, interested public and the decision makers for the permittee regarding the implementation of the CSO control alternatives. The CSO Supplemental Team shall be reconstituted with the goal of including members of the following groups, at a minimum, where possible: mayor's office, local planning board, local community groups and residents from the affected areas and from any affected areas that are also overburdened communities. The permittee shall solicit members of its community to join the CSO Supplemental Team through various outreach and public notice activities. The permittees efforts to recruit CSO Supplemental Team members shall be documented on the permittee's website.

c. The permittee is required to hold regular CSO Supplemental Team meetings that are open to the public (virtual, in person or a combination of both) in order to:.

i. Inform the affected community and interested public of the ongoing process of implementing the LTCP including reports of project status and its present impact on the local community including consideration of locating specific meetings in the affected neighborhood.

ii. Continue to identify areas of combined sewer-related flooding.

iii. Allow the affected community and interested public an opportunity to provide input on the siting of GI as required by the permit.

iv. Engage the affected community and interested public in solutions they can implement to reduce CSOs. Examples may include an adopt-a-catch-basin program, rain barrels, water conservation, the removal of impervious surfaces, and the installation of green infrastructure projects.

v. Neighborhood specific information on construction of CSO control projects throughout the process including before and during construction in order to receive feedback from the community. This should include the posting of information on scheduling of street closures as well as any potential impacts to the residents in the vicinity of any CSO mitigation projects.

d. The frequency of CSO Supplemental Team meetings that are open to the public shall be determined by the milestones in the Implementation Schedule (See G.8.) and by input from the affected community and interested public. Meetings should be held with accessibility for the interested public in mind. This may include varying start times and attendance options (availability of public transit or parking and virtual meetings), as fits the needs of the affected community and interested public.

e. The permittee shall engage with overburdened communities (OBC) within combined sewer service areas in order to solicit representation and engagement, ensure the OBCs' awareness of the meeting schedule, and encourage participation. The Department published a list of overburdened communities in the State and associated electronic mapping available at https://www.nj.gov/dep/ej/communities.html.

f. The permittee must designate one LTCP outreach coordinator. This coordinator (or any another person designated by the permittee) should be available to maintain regular communication with the affected community and interested public including, but not limited to.

i. Maintain a website that acts as a clearinghouse for information regarding implementation of the LTCP.
- The website shall contain public engagement information and include a platform for the interested public to sign up and attend any meetings.
- The website shall contain any progress reports required to be submitted by this permit.
- The website shall also list the construction status of any project identified in the Implementation Schedule in Section G.8. below.

ii. Engage the affected community and interested public in order to solicit individuals who are willing to become involved.

iii. Post meeting invitations (including dates and times) on the website at least one month in advance.

iv. Post handouts or other meeting materials on the website within one week after the meeting.

v. Make data available on the amount of public feedback received including the number of meeting attendees.

vi. Any project identified in the Implementation Schedule in Section G.8. below must display signage indicating that the project is required by the LTCP.

g. The Department's Office of Environmental Justice (see https://dep.nj.gov/ej/) shall be given 30 days advance notice of the meeting schedule so that it can be shared with Environmental Justice community leaders.

h. Public meetings shall be live streamed and made available to the affected community and interested public for viewing afterwards including materials in the language(s) appropriate to the majority of community demographics.

i. Outreach materials, including physical handouts and websites, should be produced in the language(s) appropriate to the majority of community demographics.

3. Consideration of Sensitive Areas

a. This renewal permit action requires that the CSO outfalls identified in the Identification of Sensitive Areas Report as discharging to a Sensitive Area be given priority with respect to controlling overflows through the implementation of CSO control projects to meet the minimum 85% wet weather capture requirement consistent with the Presumption Approach.

b. The permittee is required to prohibit new or significantly increased CSOs and to eliminate or relocate CSOs that discharge to sensitive areas wherever physically possible and economically achievable. Additionally, where elimination or relocation is not physically possible and economically achievable, or would provide less environmental protection than additional treatment, the permittee is required to provide the level of treatment for the remaining CSOs deemed necessary to meet water quality standards for full protection of existing and designated uses.

4. Evaluation of Alternatives

a. The "Presumption" Approach, in accordance with N.J.A.C 7:14A-11 Appendix C provides:
A program that meets any of the criteria listed below will be presumed to provide an adequate level of control to meet the water quality-based requirements of the CWA, provided the Department determines that such presumption is reasonable in light of the data and analysis conducted in the characterization, monitoring, and modeling of the system and the consideration of sensitive areas described above.
Combined sewer flows remaining after implementation of the NMCs and within the criteria specified in this Section at G.4.f.i. and ii. shall receive minimum treatment in accordance with the items below:
- Primary clarification (removal of floatables and settleable solids may be achieved by any combination of treatment technologies or methods that are shown to be equivalent to primary clarification),
- Solids and floatables disposal, and
- Disinfection of effluent, if necessary, to meet WQS, protect designated uses and protect human health, including removal of harmful disinfection chemical residuals/by-products (e.g. chlorine produced oxidants), where necessary.
The permittee must demonstrate any of the following three criteria below:

i. No more than an average of four overflow events (see below) per year from a hydraulically connected system as the result of a precipitation event that does not receive the minimum treatment specified below. The Department may allow up to two additional overflow events per year. For the purpose of this criterion, an ‘event' is:
- In a hydraulically connected system that contains only one CSO outfall, multiple periods of overflow are considered one overflow event if the time between periods of overflow is no more than 24 hours.
- In a hydraulically connected system that contains more than one CSO outfall, multiple periods of overflow from one or more outfalls are considered one overflow event if the time between periods of overflow is no more than 24 hours without a discharge from any outfall.

ii. The elimination or the capture for treatment of no less than 85% by volume of the combined sewage collected in the CSS during precipitation events on a hydraulically connected system-wide annual average basis.

iii. The elimination or removal of no less than the mass of the pollutants, identified as causing water quality impairment through the sewer system characterization, monitoring, and modeling effort, for the volumes that would be eliminated or captured for treatment under Section G.4.f.ii.

b. This renewal permit action identifies that adequate and effective CSO control measures are required to be implemented that are consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. These permit conditions are included in Part IV.G.8.

c. This permit renewal includes an implementation schedule as well as specific requirements to track and assess compliance with the attainment of wet weather percent capture. In order to evaluate the performance of the CSO control measures, the permittees are required to demonstrate percent reduction through the use of the H&H model to attain greater than 85% wet weather capture.

d. To supplement these measures, as a condition of the NJPDES permit as issued to CCMUA, influent flow is required to be reported under “Flow, In Conduit or Thru Treatment Plant” as “Raw Sew/Influent”. The number of bypass events is also required to be reported as “Duration of discharge” namely the number of calendar days per month that a bypass event occurs. These reporting requirements are included to serve as a means to track increased flows to the plant, number of bypass events and will serve as an indication of any reduction in CSOs.

5. Cost Performance Considerations

a. This renewal permit action identifies that adequate and effective CSO control measures are being implemented consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. This renewal permit sets forth an implementation schedule in Part IV.G.8.

6. Operational Plan

a. Throughout implementation of the LTCP as appropriate, the permittee shall update the Operational Plan, including Operation & Maintenance (O&M) Manual, Emergency Plan, and Asset Management Plan in accordance with F.1, to address the LTCP CSO control facilities and operating strategies, including but not limited to: the implementation, operation, maintenance of green infrastructure; staffing and budgeting; and I/I. Climate change resilience requirements shall also be considered in the update of these plans.

7. Maximizing Treatment at the Existing STP

a. The permittee shall continue to operate and maintain the entire collection system owned/operated by the permittee that conveys flows to the treatment works to maximize treatment at the hydraulically connected STP.

8. Implementation Schedule

a. The permittee shall implement CSO control projects in accordance with the LTCP construction schedule

b. Implementation Schedule is as follows:.

i. Year One (EDP to EDP + 1 year): Conduct Alternatives Analysis for C-32 CSO controls.

ii. Year Two (EDP + 1 year to EDP + 2 years): Begin new flow monitoring to assess flow levels in the in the CCMUA, Camden & Gloucester systems; Design and permitting for C-32 controls.

iii. Year Three (EDP + 2 years to EDP + 3 years): Design and permitting for C-32 controls; Separation of Pennsauken combined sewer area; Complete new flow monitoring in the CCMUA, Camden & Gloucester systems; Update the Hydrologic/Hydraulic model as a result of new flow monitoring.

iv. Year Four (EDP + 3 years to EDP + 4 years): Evaluate structural control alternatives to capture of a minimum of 85% of the annual average combined sewage collected in the system during wet weather; Implementation of C-32 controls.

v. Year Five (EDP + 4 years to EDP + 5 years): Complete evaluation of structural control alternatives to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather and submit to the NJDEP for review; Implementation of C-32 controls; Develop Cooper River Water Quality Strategy, submit LTCP Amendment as required by Part IV.D.3.

9. Compliance Monitoring Program (CMP) – Post Construction Compliance Monitoring Plan (PCCMP)

a. The permittee shall implement a Compliance Monitoring Program (CMP) adequate to: verify baseline and existing conditions, the effectiveness of CSO control measure, compliance with water quality standards, and protection of designated uses. The CMP shall be conducted before, during and after implementation of the LTCP. The "Baseline Compliance Monitoring Report" dated June 2018 was submitted and subsequently approved by the Department on February 7, 2019.

b. The portion of the CMP conducted during and after implementation of the LTCP is referred to as the Post Construction Compliance Monitoring Plan (PCCMP). The main elements of the PCCMP shall include:

i. A process to determine whether the CSO control measures are meeting the interim required percent capture milestone set forth in the LTCP or the final required percent capture of no less than 85% by volume of the combined sewage collected in the CSS during precipitation events is eliminated or captured for treatment on a system-wide annual average basis as defined in the Federal CSO Policy. The PCCMP shall provide data to evaluate the effectiveness of the CSO control measures constructed during and after the implementation of the LTCP.

ii. A monitoring schedule, regulator monitoring locations, receiving water sampling locations, and rain gauge locations.

iii. The approach for analysis of the PCCMP data for assessing the performance of CSO control measures and for reporting progress to regulatory agencies and the general public. The PCCMP shall evaluate the incremental reduction in overflow rates and volumes as the CSO control measures are placed into operation.

iv. A Public Notification System to notify the public of the occurrence of combined sewer overflows for each receiving water body.

c. The PCCMP shall include the implementation of a rainfall and hydraulic monitoring program, as well as a detailed analysis and evaluation of the CSO control measures' efficacy. Through a calibrated/validated H&H model, a continuous simulation on the system-wide annual average shall be run to compare the remaining CSO discharge volume to baseline conditions and determine whether the CSO control measures have achieved the interim required percent capture or the final required percent capture.

d. During and after the implementation of the LTCP, the PCCMP shall use the following steps to determine if the CSO control measures are meeting the interim required percent capture or the final required percent capture:.

   i. Collect flow monitoring for a 1-year period and rainfall data for a 1-year period during the effective NJPDES permit. Perform QA/QC on the data. Note that this is separate from the monthly monitoring form data;

   ii. At the end of the effective NJPDES permit, update the H&H model to include all completed CSO control measures and any other modifications to the CSS since the H&H model was calibrated for the LTCP;

   iii. Calibrate and/or validate the updated H&H model, if needed, using the flow and rainfall data collected during the effective NJPDES permit. Any recalibration of the H&H model shall be approved by the Department; and

   iv. Perform continuous simulation using the updated H&H model on the system-wide annual average and calculate the percent capture to determine if the interim required percent capture or the final required percent capture is being achieved.

e. The permittee shall conduct interim post-construction compliance monitoring every five years as established in the LTCP. Such monitoring shall assess the projects and implementation schedule including attainment of percent capture milestones set forth in the LTCP. These projects shall be monitored and analyzed to determine if they are operating as intended and whether the implementation of projects under the LTCP are achieving the interim required percent capture milestones set forth in the LTCP. If the PCCMP determines that the implemented CSO control measures do not meet the interim required percent capture or the final required percent criteria, an evaluation must be included in the Adaptive Management Plan in accordance with H. below.

f. The permittee shall submit an Interim PCCMP Report on or before 54 months from the effective date of the permit (EDP). The report shall include:

   i. A statement setting forth the deadlines and other terms that the permittees were required to meet in the effective NJPDES permit;

   ii. A summary of principal contacts with the Department during the effective NJPDES permit relating to CSOs or implementation of the LTCP;

   iii. NJPDES permit violations, including but not limited to dry weather overflows;

   iv. A summary of flow and hydraulic monitoring data collected by the permittees during the effective NJPDES permit;

   v. A description of the CSO control measures completed within the effective NJPDES permit and a projection of CSO control measure work to be performed during the subsequent renewal NJPDES permit;

vi. An evaluation of the effectiveness of the CSO control measures constructed in the effective NJPDES permit to determine if the interim required percent capture is achieved; and

vii. A summary of any proposed adjustments to the components of the LTCP.

g. Upon implementation of all the LTCP CSO control measures, the monitoring information collected from the ambient baseline monitoring phase of the BCMP shall be compared to the post-construction compliance monitoring to evaluate the effectiveness of CSO control measures implemented to verify that the remaining CSOs are not precluding the attainment of water quality standards.

h. The PCCMP must include pathogen data collected by the DRBC as part of the DRBC Boat Run Program as performed under an approved Quality Assurance Project Plan (QAPP). This data is collected from the Delaware River, Cooper River and Newton Creek.

i. A Final PCCMP Report shall be submitted to the Department within 30 months after the last LTCP project has been constructed and is in operation. The single Final PCCMP Report shall evaluate and document the system-wide performance of the LTCP CSO control measures. The Report shall include an assessment of whether the control measures are meeting the final required percent capture and complying with water quality standards. The report shall include:
   i. A complete post-construction compliance monitoring period data summary and analysis;

   ii. A reporting of all of the CSO control measures that have been constructed, implemented, and that are in operation;

   iii. An evaluation of the CSO control measures' performance, and whether the controls meet the final required percent capture;

   iv. A description of any actions that were needed to be implemented to meet the interim required percent capture or the final required percent capture; and.

   v. An assessment of whether the control measures are complying with water quality standards.

10. Permittee's LTCP Responsibilities

a. The Camden County Municipal Utilities Authority (NJPDES Permit No. NJ0026182), the City of Camden (NJPDES Permit No. NJ0108812), and Gloucester City (NJPDES Permit No. NJ0108847) are a hydraulically connected combined sewer system. The three permittees own/operate separate portions of one hydraulically connected combined sewer system.

b. The permittee is responsible for implementing CSO control measures to ensure compliance with the Federal CSO Control Policy and N.J.A.C. 7:14-11, Appendix C as outlined in the Implementation Schedule located in Section G.8. Since multiple permittees own/operate different portions of a hydraulically connected CSS, the permittee is required to work cooperatively and provide the necessary information with all other CSO permittees to ensure overall compliance. In addition, each permittee is required to institute necessary measures in accordance with the Implementation Schedule for only the portion of the hydraulically connected system that the permittee owns/operates and provide this information to the other permittees for compliance with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

H. Custom Requirement

1. Precipitation Trends

a. The following information shall be submitted to the Department as part of the NJPDES permit renewal application:

   i. The permittee shall analyze and submit the annual precipitation depth obtained by the National Oceanic Atmospheric Administration (NOAA) at the Philadelphia International Airport in order to determine the annual precipitation depth during the effective period of the permit.

   ii. The permittee shall determine and submit the annual precipitation depth for each calendar year, such that by the end of the permit, the most recent five calendar years of data has been collected. The permittee shall compare this data to assumptions utilized in the development of the LTCP.

   iii. This information shall be submitted to the Department with the NJPDES renewal application with an assessment of any change in precipitation trends.

2. Adaptive Management Plan

a. An Adaptive Management Plan shall be submitted on or before 54 months from the effective date of the permit (EDP) if any of the following occurs:

   i. An Interim or the Final PCCMP Report determines that the implemented CSO control measures do not meet the interim required percent capture or the final required percent capture as per Part IV.G.9.e. above;.

   ii. A permittee requests to modify the implementation schedule and/or CSO control measures in the implementation schedule; and/or

   iii. The precipitation trends required in Part IV.H.1 above demonstrates a change in the assumptions used in the development of the LTCP.

b. If an Interim or the Final PCCMP Report determines that the implemented CSO control measures do not meet the interim required percent capture or the final required percent capture, the Adaptive Management Plan shall include:.

   i. Modified or additional CSO control measures that will be to achieve the interim required percent capture or the final required percent capture;.

   ii. A detailed analysis and a modified implementation plan and schedule of the CSO control measures; and

   iii. Inclusion of any adaptive management modifications based on an Interim or the Final PCCMP Report.

c. If a permittee requests to modify the implementation schedule and/or CSO control measures in the implementation schedule by incorporating new technologies, group similar control measures to reduce cost, increase wet weather, change the order of the control measures and/or accelerate the schedule. If such a request, the Adaptive Management Plan shall include:

   i. A detailed analysis of the modified and/or new CSO control measures including verification that the interim required percent capture or the final required percent capture will be achieved; and.

   ii. A modified implementation plan and schedule of the CSO control measures.

APPENDIX A:

CHRONIC TOXICITY TESTING SPECIFICATIONS

FOR USE IN THE NJPDES PERMIT PROGRAM

Version 3.0

May 2017

TABLE OF CONTENTS

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 ICp values and not the bootstrap mean ICp, shall be reported for permit compliance purposes. The ICp 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 ICp 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
Pimephales promelas	80%	0.25 mg avg	N/A
Ceriodaphnia dubia	80%	N/A	Average of $\geq$15 young per surviving female
Selenastrum capricornutum	Density $\geq 2 \times 10^5$ cells/ml	N/A	Variability in controls not to exceed 20%.
Cyprinodon variegatus	80%	0.60 mg (unpreserved) avg 0.50 mg (preserved) avg	N/A
Menidia beryllina	80%	0.50 mg (unpreserved) avg 0.43 mg (preserved) avg	N/A
Mysidopsis bahia	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.

New Jersey Department of Environmental Protection
Water Pollution Management Element
Bureau of Surface Water & Pretreatment Permitting
biomonitoring@dep.nj.gov

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 #: 14667 **PI #:** 46168

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**	**CCMUA**	**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**	**CCMUA Sewer Service Area**	**Approved**
RA-CM	Dust Control	None	Not Approved
RA-CM	**Fire Protection**	**CCMUA**	**Approved**
RA-CM	Vehicle Washing (at STP or DPW)	None	Not Approved
RA-CM	Composting	None	Not Approved
RA-IS	**Sanitary Sewer Jetting**	**CCMUA 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**	**CCMUA**	**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

Annual Reuse Report

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), 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:
ATTN: RWBR Review Team
Mail Code 401 – 02B
Division of Water Quality
Bureau of Surface Water & Pretreatment
Permitting
P.O. Box 420
Trenton, NJ 08625-0420

For electronic copies:
DWQRWBR@dep.nj.gov

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), 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)
	For Example:		
RA-CM	*Street Sweeping*	*Local Township*	*42,000*
RA-IS	*Sanitary Sewer Jetting*	*Facility Sewer Service Area*	*15,000*
RA-IS	*STP Washdown*	*Sewage Treatment Plant*	*43,000*
		Grand Total (R)	*100,000*

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:
ATTN: RWBR Review Team
Mail Code 401 – 02B
Division of Water Quality
Bureau of Surface Water & Pretreatment
Permitting
P.O. Box 420
Trenton, NJ 08625-0420

For electronic copies:
DWQRWBR@dep.nj.gov

Appendix C

Design Standards for Storm Drain Inlets

Grates in pavement or other ground surfaces, such as roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels and stormwater basin floors used to collect stormwater from the surface into a storm drain or surface water body, shall meet the following standards:

1. The New Jersey Department of Transportation (NJDOT) bicycle safe grate standards described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines (April 1996).

2. A grate where each individual clear space in that grate has an area of no more than seven (7.0) square inches, or is not greater than 0.5 inches across the smallest dimension.

3. For curb-openings inlets, including curb-opening inlets in combination inlets, the clear space in the curb opening, or each individual clear space if the curb opening has two or more clear spaces, shall have an area of no more than seven (7.0) square inches or be no greater than two (2.0) inches across the smallest dimension.

The following exemptions apply:

1. Where each individual clear space in the curb opening in existing curb-opening inlets do not have an area of more than nine (9.0) square inches.

2. Where the review agency determines that the standards would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets.

3. Where flows from the water quality design storm as specified in N.J.A.C. 7:8 are conveyed through any device (e.g., end of pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:

    a. A rectangular space four and five-eighths inches long and one and one-half inches wide (this option does not apply for outfall netting facilities); or

    b. A bar screen having a bar spacing of 0.5 inches.

4. Where flows are conveyed through a trash rack that has parallel bars with one inch (1") spacing between the bars, to the elevation of the water quality design storm as specified in N.J.A.C. 7:8.

5. Where the Department determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet the standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.