State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY
BUREAU OF SURFACE WATER AND PRETREATMENT PERMITTING
401 East State Street
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Trenton, New Jersey 08625-0402
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PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

SHAWN M. LATOURETTE
Commissioner

Via Email Only
November 9, 2023

Orion Joyner, City Engineer
Camden City
520 Market Street – Suite 325
Camden, NJ 08101

Re: Draft Surface Water Renewal Permit Action
Category: CSM - Combined Sewer Management
NJPDES Permit No. NJ0108812
Camden City, NJ 08101
Camden County

Dear Orion Joyner:

Enclosed is a **draft** NJPDES permit action identified above which has been issued in accordance with N.J.A.C. 7:14A. The City of Camden is served by a combined sewer system (CSS) which is hydraulically connected to Gloucester City and the Camden County Municipal Utilities Authority (CCMUA) Delaware #1 Water Pollution Control Facility. The City of Camden owns/operates twenty-two (22) Combined Sewer Overflow (CSO) outfalls, which are equipped with solids/floatables controls. Eleven (11) CSO outfalls discharge into Zone 3 of the Delaware River, nine (9) CSO outfalls discharge into the Cooper River (classified FW2-NT), and two (2) CSO outfalls discharge into the Newton Creek (classified as FW2-NT).

This renewal permit serves to assess the permittee's compliance with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. This renewal permit also serves to implement the requirements of the coordinated Long Term Control Plan (LTCP) dated September 2020.

Notice of this draft permit action will appear on the Division of Water Quality's website at www.nj.gov/dep/dwq, in the *Courier Post* and in the November 15, 2023 *DEP Bulletin*. The *DEP Bulletin* is available on the internet at http://www.state.nj.us/dep/bulletin. In accordance with N.J.A.C. 7:14A-15.10(c)1i, the public comment period will close on January 15, 2024. As detailed in the *DEP Bulletin* and aforementioned newspaper, written comments on the draft document must be submitted in writing to Susan Rosenwinkel, Assistant Director, Mail Code 401-02B, Division of Water Quality, Water Pollution Management Element, P.O. Box 420, Trenton, NJ 08625- 0420 by the close of the public comment period. Comments via e-mail are also acceptable and can be sent to dwq.bswp@dep.nj.gov.

All persons, including the applicant, who believe that any condition of this draft document is inappropriate or that the Department's decision to issue this draft document is inappropriate, must raise all reasonable arguments and factual grounds supporting their position, including all supporting materials, during the public comment period. Specific information regarding the draft document may be obtained from Molly Jacoby of the Bureau of Surface Water &

Pretreatment Permitting at (609) 292-4860. Take notice that the Department will be holding a non-adversarial virtual public hearing to afford the public an opportunity to be heard on this proposed action consistent with N.J.A.C. 7:14A-15.12. Details are provided within the public notice as attached. The Department will respond to all significant and timely comments upon issuance of the final document. The permittee and each person who has submitted written comments will receive notice of the Department's final decision to issue, revoke, or redraft the document.

If you have questions or comments regarding the draft action, please contact Molly Jacoby either by phone at (609) 292-4860 or email at Molly.Jacoby@dep.nj.gov.

Sincerely,

Joseph Mannick
Section Chief
Bureau of Surface Water & Pretreatment Permitting

Enclosures

c: Permit Distribution List
Masterfile #: 120125; PI #: 47220

EXECUTIVE SUMMARY

The City of Camden
CSO Permit

In 2015, the NJDEP issued an individual NJPDES CSO permit to the City of Camden. The permit required creation of a single, coordinated Long Term Control Plan with the Camden County Municipal Utilities Authority and Gloucester City. The LTCP has been reviewed by the NJDEP and is being incorporated into this permit.

The City of Camden will be required to comply with the CSO policy through the Presumption Approach of elimination or capture of a minimum 85% of the annual average combined sewage collected in the system during wet weather. CCMUA has recently completed wet weather improvements to increase acceptance of wet weather flow from the City of Camden and Gloucester City. Subsequent CSO permits, issued every five years, will include requirements to implement the next five years of CSO projects as detailed in the LTCP.

This permit builds upon the Public Participation requirements in the 2015 permit through inclusion of Public Engagement. Specifically, this section includes robust requirements pertaining to Environmental Justice through solicitation of input by overburdened communities, notably in the siting of green infrastructure projects.

This permit also includes specific requirements pertaining to climate change such as the required preparation of a Vulnerability Analysis as part of an Emergency Plan to ensure the effective operation of the treatment works and facilities under emergency conditions. Floodproofing, climate change, and resiliency are incorporated in the design of CSO projects. Finally, upon completion of the projects, the permittee will evaluate compliance with the minimum 85% of the system-wide annual average capture.

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
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

PUBLIC NOTICE

Notice is hereby given that the New Jersey Department of Environmental Protection (Department) proposes to renew the New Jersey Pollutant Discharge Elimination System (NJPDES) Discharge to Surface Water (DSW) Permits identified below in accordance with N.J.A.C. 7:14A-1 et seq., and by authority of the Water Pollution Control Act at N.J.S.A. 58:10A-1 et seq., for the following discharges:

Permittees

Camden County Municipal Utilities Authority (CCMUA)
Delaware #1 Water Pollution Control Facility (WPCF)
1645 Ferry Avenue
Camden, NJ 08104
NJ0026182

City of Camden
520 Market Street – Suite 325
Camden, NJ 08101
NJ0108812

Gloucester City
100 North Johnson Boulevard
Gloucester City, NJ 08030
NJ0108847

Combined Sewer Overflows (CSOs) are discharges from Combined Sewer Systems (CSSs). CSSs are sewers that were designed many decades ago to collect rainwater and snowmelt runoff, domestic sewage, and industrial wastewater in the same pipe. CSSs are no longer permitted in New Jersey for new communities, but many older cities in the State continue to operate existing CSSs. These subject NJPDES permit renewals are issued to the above referenced permittees and serve to assess compliance with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

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 CSSs, which are hydraulically connected to the CCMUA WPCF. The three permittees own and operate separate portions of one hydraulically connected CSS. CCMUA owns and operates Delaware #1 Water Pollution Control Facility (WPCF) located in the City of Camden.

Separate NJPDES permits are being issued to the WPCF and the two CSS municipalities. The CSO Long Term Control Plan (LTCP) as submitted cooperatively by the City of Camden, Gloucester City and CCMUA, includes a list of projects and timelines that will reduce discharges from the CSO outfalls in these municipalities based upon the Presumption Approach consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

CCMUA owns one (1) CSO outfall in the City of Camden that discharges to Zone 3 of the Delaware River. The City of Camden owns twenty-two (22) CSO outfalls; eleven (11) discharge to Zone 3 of the Delaware River, nine (9) discharge into the Cooper River (classified FW2-NT), and two (2) discharge into the Newton Creek (classified FW2-NT). Gloucester City owns seven (7) CSO outfalls; six (6) discharge to Zone 3 of the Delaware River and one (1) discharges to Newton Creek (classified FW2-NT). When the conveyance capacity of the collection system and/or the CCMUA WPCF is exceeded, excess combined sewage flows pass through these outfalls.

The CCMUA WPCF discharges treated and disinfected domestic wastewater with industrial contribution into Zone 3 of the Delaware River. The existing facility has a NJPDES permitted flow value of 80 million gallons per day (MGD) which discharges through outfall DSN 001A.

Modification provisions as cited in the permit may be initiated in accordance with the provisions set forth in Part IV and upon written notification from the Department.

A draft NJPDES permit renewal has been prepared for this facility based on the administrative record which is on file at the offices of the Department, located at 401 East State Street, Trenton, New Jersey. It is available for inspection, by appointment, Monday through Friday, between 8:30 A.M. and 4:00 P.M. Appointment for inspection may be requested through the Office of Records Access. Details are available online at www.nj.gov/dep/opra, or by calling (609) 341-3121. A copy of the draft permit is available on the Department's Division of Water Quality website at www.nj.gov/dep/dwq.

Comments may be submitted in writing to Susan Rosenwinkel, Assistant Director, Water Pollution Management Element, Attention: Comments on Public Notice NJ0026182, NJ0108812, and NJ0108847 at Mail Code 401-02B, Division of Water Quality, Bureau of Surface Water & Pretreatment Permitting, P.O. Box 420, Trenton, NJ 08625-0420 by the close of the public comment period. Comments via email are also acceptable and can be sent to dwq_bswp@dep.nj.gov. All persons, including the applicant, who believe that any condition of this draft document is inappropriate or that the Department's decision to issue this draft document is inappropriate, must raise all reasonable arguments and factual grounds supporting their position, including all supporting materials, during the public comment period. Specific information regarding the draft document may be obtained from Molly Jacoby of the Bureau of Surface Water & Pretreatment Permitting at (609) 292-4860 or via e-mail at Molly.Jacoby@dep.nj.gov.

Take notice that the Department will be holding a non-adversarial virtual public hearing to solicit public comment on the draft permits identified above on December 15, 2023, from 10:00 am to 12:00 pm then again from 6:00 pm to 8:00 pm (or end of testimony, whichever comes first). This hearing will be conducted virtually via the Department's video conferencing software (i.e., Microsoft Teams). A link as well as a telephone number to the virtual public hearing will be provided on the Department's NJPDES Division of Water Quality website (https://www.nj.gov/dep/dwq). The hearing shall be held before a Hearing Officer designated by the Department. The applicant and other interested persons will have the opportunity to present and submit information on the proposed action. The purpose of this hearing is to provide the public with an opportunity to be heard on this proposed draft permit action where both verbal and written statements will be given equal weight.

The comment period will close on January 15, 2024, at 11:59 pm.

The Department will respond to all significant and timely comments upon issuance of the final document. The permittee and each person who has submitted written comments will receive notice of the Department's permit decision.

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

FACT SHEET

Masterfile #: 120125 **PI #:** 47220

This fact sheet sets forth the principle facts and the significant factual, legal, and policy considerations examined during preparation of the draft permit. This action has been prepared in accordance with the New Jersey Water Pollution Control Act and its implementing regulations at N.J.A.C. 7:14A-1 et seq. - The New Jersey Pollutant Discharge Elimination System.

PERMIT ACTION: Surface Water Renewal Permit Action

The permittee has applied for a NJPDES Surface Water Renewal Permit Action through an application received July 29, 2021.

1 Name and Address of the Applicant:

Camden City
520 Market Street – Suite 325
Camden, NJ 08101

2 Name and Address of the Facility/Site:

Camden City
Combined Sewer Collection System
Camden City, NJ 08101
Camden County

3 NJPDES CSO Permit and Policy Background:

The City of Camden is served by a combined sewer collection system (CSS) which is hydraulically connected to the Camden County Municipal Utilities Authority's (CCMUA) Delaware Water Pollution Control Facility #1 (WPCF). This subject renewal permit action is issued to the City of Camden that owns/operates 22 Combined Sewer Overflow (CSO) outfalls. Separate NJPDES permits are issued to Gloucester City and CCMUA, which share the hydraulically connected system with the City of Camden.

CSSs are sewers that were designed many decades ago to collect rainwater and snowmelt runoff, domestic sewage, and industrial wastewater in the same pipe. New CSSs are no longer permitted in New Jersey for new communities, but many older cities in the State continue to operate existing CSSs. Most of the time, the CSSs transport all wastewater to a sewage treatment plant, where it is treated and then discharged to a waterbody. However, during periods of rainfall or rainfall with snowmelt, the wastewater volume in a CSS can exceed the hydraulic capacity of the sewer system or treatment plant. For this reason, CSSs were designed to overflow during these periods and discharge excess wastewater directly from CSO outfalls to nearby streams, rivers, or other water bodies.

Historically, the control of CSOs has proven to be extremely complex. To address these challenges, EPA's Office of Water issued a National Combined Sewer Overflow Control Strategy ("CSO Strategy") on August 10, 1989 (54 Federal Register 37370). Five years later, EPA issued the National CSO Control Policy (Federal CSO Control Policy) on April 9, 1994, which remains the current national framework for control of CSOs. The Department incorporated the Federal CSO Control Policy verbatim into its regulations at N.J.A.C. 7:14A-11 – Appendix C. As such, CSO controls are also required by the NJPDES Regulations. The Federal CSO Control Policy and NJPDES Regulations establish procedures for permittees and state authorities on coordinating the planning, selection and implementation of CSO controls. It promotes a phased approach to the control of CSOs through a series of permits that include progressively more stringent requirements. In the Wet Weather Quality Act of 2000, Congress amended the Clean Water Act to incorporate the Federal CSO Control Policy. As amended, the Clean Water Act requires that all permits, orders and decrees issued to regulate combined system overflows must comply with the Federal CSO Control Policy. 33 U.S.C. 1342(q)(1). The

Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C include Nine Minimum Controls (NMC) and Long Term Control Plan (LTCP) conditions.

CSOs can contain suspended solids, pathogenic microorganisms, toxic pollutants, floatables, nutrients, oxygen-demanding organic compounds, oil and grease, and other pollutants. CSOs can cause exceedances of water quality standards (WQS) which may pose risks to human health, threaten aquatic life and its habitat, and impair the use and enjoyment of the State's waterways.

Combined sewage that drains to the collection system can cause large spikes in influent flow levels to the sewage treatment plant when certain precipitation conditions (e.g. heavy rain) occur. While the majority of the collection system for the City of Camden is served by a combined sewer system, a portion of the collection system consists of separate sewers (i.e., a separate pipe for stormwater and a separate pipe for sewage).

The NJPDES permit issued to the City of Camden on March 12, 2015 (2015 NJPDES CSO permit) and effective on July 1, 2015 required submission of a LTCP consistent with the Federal CSO Control Policy and NJPDES Regulations. This permit was subsequently modified for certain conditions as identified within this fact sheet. The City of Camden, Gloucester City and CCMUA submitted a single, coordinated LTCP dated September 2020. This subject permit action serves to incorporate CSO control strategies to achieve a minimum wet weather percent capture value as outlined in the CSO LTCP.

4 Climate Change and Environmental Justice:

A. Climate Change:

The State of New Jersey and the Department are working to address and mitigate the impacts of climate change. Climate change, a result of rising atmospheric levels of carbon dioxide and other greenhouse gases, is causing significant direct and secondary changes in New Jersey's environment. Many of these changes are projected to worsen in coming years. These climate changes include increases in temperature, increases and variability in precipitation, frequency and intensity of storms, sea-level rise, ocean acidification, and associated impacts to both natural and built environments, ecological systems, human health, and the economy. Additional information is available here: https://www.nj.gov/dep/climatechange/.

The State of New Jersey is working to reduce and respond to climate change, including through enhanced water infrastructure resilience measures. This 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.

B. Environmental Justice:

Pursuant to New Jersey's Environmental Justice Law, N.J.S.A. 13:1D-157, et seq., it is the policy of the State that all residents, regardless of income, race, ethnicity, color, or national origin, have a right to live, work, learn, and recreate in a clean and healthy environment, and that no community should bear a disproportionate share of the adverse environmental and public health consequences that accompany the State's economic growth. To further the promise of environmental justice, it is the policy of the State that all New Jersey communities, and especially those disproportionately affected by environmental and public health stressors, must have a meaningful opportunity to participate in decision-making that affects their environment, communities, homes, and health.

Consistent with the objectives of the Environmental Justice Law and, as required by the Federal CSO Control Policy and NJPDES Regulations, the NJPDES permit has been subjected to an extensive public participation process throughout the three steps of the LTCP process which has continued as part of the preparation of this renewal permit. This is summarized and described in Part IV.G.2 where the goal is to continue meaningful engagement and opportunities in permitting decisions. Prior to issuance of this draft NJPDES permit, the Department held

stakeholder sessions on the topics of Public Engagement, Environmental Justice, Climate Change and CSO Metrics on December 7, 2021, January 13, 2022, February 10, 2022 and February 17, 2022, respectively. A stakeholder meeting was also held on October 6, 2022 regarding permitting concepts. In addition, the Department is holding a public hearing for this NJPDES permit as detailed within the public notice with a 60-day public comment period consistent with N.J.A.C. 7:14A-15.10.

5 Facility Description:

A. Overview of Hydraulically Connected System:

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. CCMUA serves 36 municipalities in Camden County. 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. There is one permitted combined sewer overflow discharge within the CCMUA regional conveyance system that is owned and operated by CCMUA namely the C-32 outfall (DSN 040A) that discharges to the Delaware River in the northeast corner of the City of Camden.

The municipal collection sewer systems are owned and operated by their respective municipalities or municipal authorities. Of the 36 municipalities within the service area only the Cities of Camden and Gloucester have combined sewer systems. The collection and conveyance of wastewater (both dry and wet weather) from these municipal combined sewer systems is routed to either the CCMUA WPCF or the CSO outfalls depending on weather conditions. Refer to Figure 2-1 below from the LTCP which shows the communities served by the CCMUA WPCF:

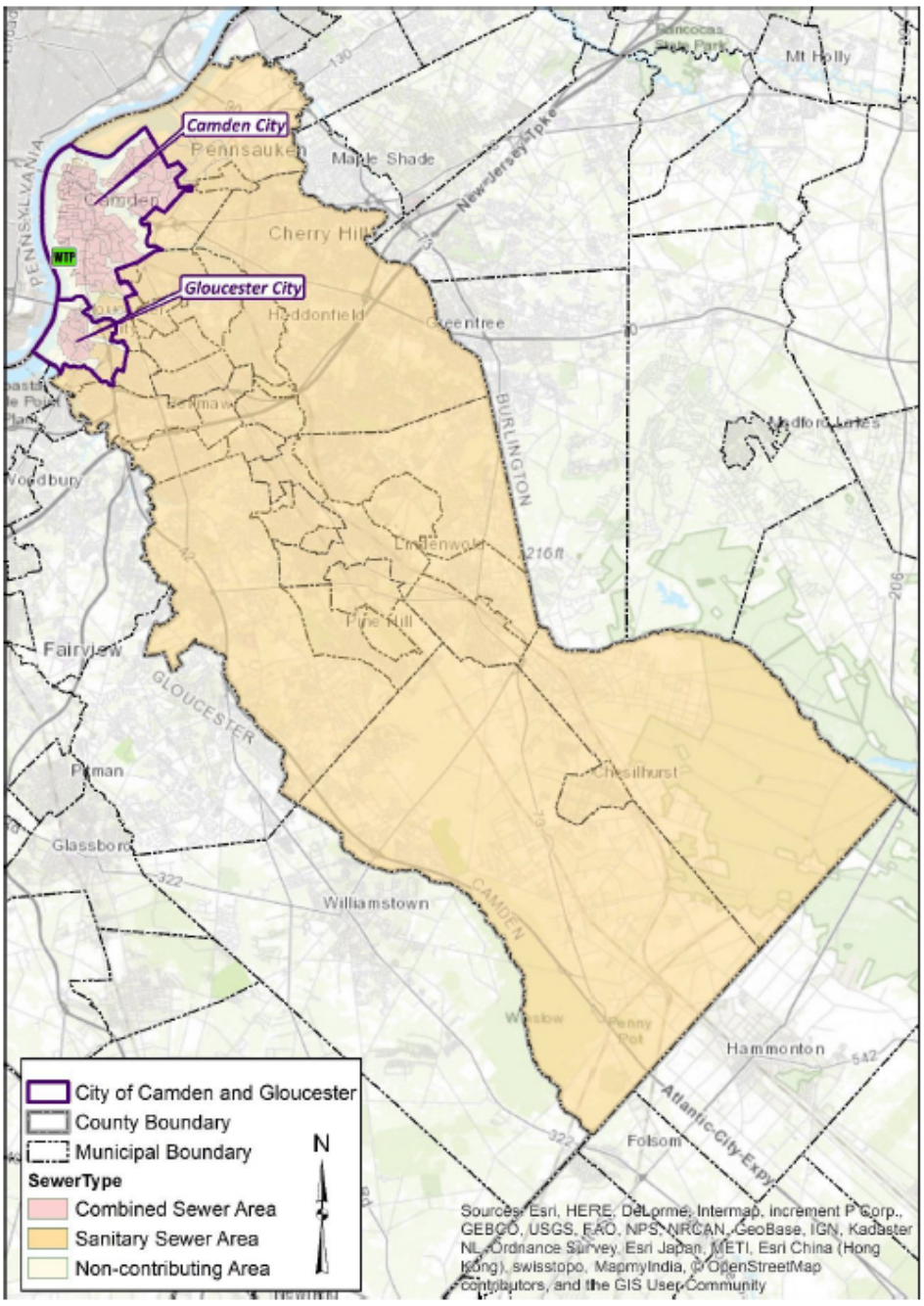


Figure 1-1
CCMUA Service Area

The City of Camden has a total area of approximately ten square miles. There are 27 sewersheds (catchment areas) within the City of Camden combined sewer system. The average daily wastewater flow generated within the City of Camden is estimated to be approximately 20 MGD. The wastewater collection system consists primarily of combined sewers. According to the City of Camden records, there presently exists approximately 170 miles of combined sewers containing nearly 4,000 storm inlets. In addition to a population of about 77,344 (2010 Census), the City of Camden's wastewater collection area also includes approximately 250 customers located in Pennsauken Township and stormwater flow from a larger part of Pennsauken Township.

Gloucester City is located south of Newton Creek, which delineates the municipal boundary with the City of Camden to the north. There are seven sewersheds within Gloucester City which discharge into an interceptor sewer which is aligned along King Street. The average daily wastewater flow generated within Gloucester City is estimated to be approximately 2 MGD. The collection system serves an area of approximately 1.6 square miles, of which 1.0 square miles is served by combined sewers. There are about 40 miles of collection sewers within Gloucester City of combined and sanitary sewers. The combined sewer system flows into the Gloucester pump station, which is owned and operated by CCMUA. The Gloucester Pump Station conveys flows from the Big Timber Creek Interceptor and the flows from Gloucester to the WPCF. As of the 2010 Census, Gloucester had a population of about 11,500.

B. Collection System Description:

The general characteristics of the CSS are summarized in Table 1.2 of the September 2020 LTCP:

Table 1-2– Collection System Overview

Permittee	# Sewer-sheds	Collection System Pipe in Miles[1-1]	Appurtenances				Contributing Area (square miles)
			Active Regulators	Active Outfalls	Pump Stations	Overflow Netting Facilities	
Camden	27[1-2]	173	24	22	8	22	6.6
Gloucester	7	39	7	7	7	7	1.6
CCMUA			1	1	2	1	
Totals	34	212	32	30	17	30	8.2

The CSS for the City of Camden includes twenty-two (22) CSO outfalls designated as discharge serial numbers (DSN) 005A to DSN 034A. When the conveyance capacity of the collection system and/or CCMUA is exceeded depending on the rainfall event, excess combined sewage flows pass through the following structures prior to discharge through any of the CSO outfalls.

Regulator	Outfall Number	Outfall Name	Latitude N	Longitude W	Solids/Floatables Status
CFA	005A	Ferry Ave. PS	39°55'15"	75°05'28"	Completed
C1	007A	Morgan Blvd., & I- 676	39°54'44"	75°06'59"	Completed
C2	008A	2nd St. & Jefferson	39°55'14"	75°07'30"	Completed
C3	009A	Jackson Street	39°55'28"	75°07'38"	Completed
C5	010A	Kaighn Ave.	39°55'45"	75°07'48"	Completed
C6/C7	012A	Division & Front	39°56'03"	75°07'52"	Completed
C8	013A	Clinton & Front Streets	39°56'13"	75°07'51"	Completed
C9	014A	2nd & Benson Streets	39°56'30"	75°07'49"	Completed
C10	015A	Arch St. & Delaware Ave.	39°56'51"	75°07'53"	Completed
C11	016A	Cooper St. & Delaware Ave.	39°56'57"	75°07'59"	Completed
C13A	018A	Front St. & Erie	39°57'05"	75°07'24"	Completed
C15	020A	10th & State St.	39°57'03"	75°06'40"	Completed
C17	022A	Federal St (East)	39°56'35"	75°06'18"	Completed
C16	023A	11th & Linden Streets	39°56'18"	75°06'22"	Completed
C18/C19	024A	Pine and Magnolia Streets	39°56'19"	75°06'18"	Completed
C23A	025A	24th St. & Harrison Ave.	39°57'31"	75°06'14"	Completed
C24	026A	27th St. & Buren Ave.	39°57'41"	75°05'52"	Completed
C27	028A	Baird Blvd.	39°56'16"	75°05'42"	Completed
C28	029A	East State St	39°57'07"	75°06'36"	Completed
C22	030A	Federal St (West)	39°56'38"	75°06'15"	Completed
Thorndyke	033A	Thorndyke Ave.	39°56'13"	75°05'27"	Completed
C22A	034A	River Rd.	39°56'44"	75°06'18"	Completed

C. Expansion of CCMUA Wet Weather Capacity

CSOs have been reduced by increasing the capture and conveyance of wet weather combined sewer flow that is directed to the WPCF instead of flowing to CSO outfalls. CCMUA determined that addressing the hydraulic bottlenecks identified within the treatment plant could increase the plant's capacity to treat flows up to 185 MGD during significant wet weather events with river storm tide elevations of 10.0-feet and 11.5-feet.

CCMUA has completed major capital improvements to expand the wet weather treatment capacity of the WPCF. The CCMUA WPCF receives wastewater influent from three (3) sources, the City of Camden's 72" Combined Sewage system main, the Camden County's 96" Sanitary Sewer main, and the 36" Baldwin Run force main. Prior to the improvement/expansion, these pipes merged at an existing junction structure near the northeasterly side of the plant. The actual range of flows to the plant depended on how the wastewater collection system is operated. These wet weather improvements are described in Section 2.5 of the 2018 System Characterization Report and can be summarized as follows:

Influent Chamber Reconfiguration – This project allowed approximately 190 MGD of wastewater flow to enter the plant. Under the previous configuration of the influent chamber, a flow control gate in the City of Camden's interceptor system was used to limit the flow into the junction chamber in response to wet weather events. This resulted in the need to throttle back the Camden Arch Street Pump Station to reduce flows to the WPCF during wet weather thereby resulting in less flows being treated at the WPCF. In conjunction with the expansion of wet weather treatment capacities at WPCF, the need to throttle back pumping at the Arch Street pump station during wet weather has been significantly reduced.

Influent Pump Upgrades – A related project will increase the capacity (largest pump out of service) of the raw sewage pumps to 180 MGD to provide for operating efficiencies and to better match the hydraulic capacity of the reconfigured influent chamber and expanded primary treatment capacity. Under the scope of the pump upgrade project, raw sewage pump upgrades include new premium efficiency motors, variable speed drives, a new resilient power distribution system and related HVAC work. In addition, two of the existing four pumps will be upgraded from 45 MGD to 60 MGD each. The other two existing pumps will remain at 60 MGD each. The existing piping and valves will remain in place.

The wet weather expansion of the WPCF from 150 MGD to 185 MGD was completed on May 1, 2020. This project included improvements to the influent flow control, influent pumping, as well as improvements to primary treatment equipment. These changes to wet weather flow capacity were authorized in a NJPDES permit modification dated July 18, 2019.

The Department issued a letter to the three permittees on July 9, 2023 requesting flow data at the headworks to document increases in diversion of combined sewage flows for treatment at CCMUA. The permittees responded on August 9, 2023 with certain tables which were then included in the September 2023 revised LTCP as Tables 2-2 through 2-4. The wet weather benefits of the plant expansions are shown below in Tables 2-2 through 2-4 as per the revised LTCP:

Table 2-2 – Overall Comparison of Flow Rates

Time Period	Average		Peak Flow Rate (MGD)
	Total Daily Flow (MGD)	Peak Daily Flow Rate (MGD)	
Jan 2016 - April 2020	54.9	75.7	157.4
Plant Expansion (May 2020 forward)	51.8	84.6	237.8

Table 2-4 – Peak Daily Flow Rate by Month

Month	2016	2017	2018	2019	2020	2021	2022	2023	Average 2016-2019	2022	% Change (2016 - 2019 .v. 2022)
January	112.2	120.6	109.6	141.1	124.7	166.3	186.3	123.5	120.9	186.3	54%
February	139.8	122.7	154.7	131.1		181.5	177.7	180.3	137.1	177.7	30%
March	146.1	136.1	140.0	140.0		173.6	130.0	166.9	140.6	130.0	-8%
April	113.3	141.0	152.8	134.7	125.4	187.1	177.6	178.2	135.5	177.6	31%
May	145.7	131.4	90.7	155.3	158.2	138.0	237.8	127.1	130.8	237.8	82%
June	115.1	105.6	140.9	157.4		200.1	177.9	179.2	129.8	177.9	37%
July	144.1	130.7	101.3	136.6	176.0	175.3	176.1	160.2	128.2	176.1	37%
August	101.5	127.6	123.9	132.0	174.9	140.1	120.3	168.9	121.3	120.3	-1%
September	110.1	101.4	130.3	104.2	183.0	179.8	174.7		111.5	174.7	57%
October	125.0	151.0	123.0	131.7	176.0	214.0	203.4		132.7	203.4	53%
November	136.8	103.7	156.4	57.2	181.2	156.6	107.5		113.5	107.5	-5%
December	151.8	120.0	154.1	127.9	181.7	126.6	201.8		138.5	201.8	46%
Average	**128.5**	**124.3**	**131.5**	**129.1**	**164.6**	**169.9**	**172.6**	**160.5**	**128.3**	**172.6**	**34%**
Maximum	**151.8**	**151.0**	**156.4**	**157.4**	**183.0**	**214.0**	**237.8**	**180.3**	**140.6**	**237.8**	

Plant Expansion (May 2020 forward)

D. Upgrades to the City of Camden Collection System

The City of Camden in cooperation with CCMUA has taken steps toward the reduction of CSOs. This includes:

- The City of Camden's Arch Street pump station conveys flows from Camden sewersheds C-10 through C-13A via the Camden Interceptor to the WPCF. The City of Camden completed upgrades to the Arch Street pump station in 2020 which included increasing the motor horse-power on the three pumps from 75 to 100 each and increasing the size of the pump impellers from 22.25" to 24.25". Prior to the expansion of CCMUA's treatment capacity, the City of Camden needed to throttle back the pumping rates at Arch Street during significant storm events to protect the interceptor downstream and the treatment plant. With the expanded treatment plant capacity of 185 MGD and increased pumping capacity at Arch Street, the frequency of the need to temporarily shut down Arch Street pump station has been greatly reduced since 2020 thereby resulting in a reduced number of CSO events as shown on Table 2-5:

Table 2-5 – Frequency Arch Street Pump Station Shut-Downs During Wet Weather

Year	Rainfall	Arch St. Shut-Downs	C10 CSO Events
2018	69.12	22	112
2019	54.02	28	73
2020	46.60	14	59
2021	43.04	3	54
2022	43.70	2	71
2023 (through July)	19.21	0	29

- The reconstruction of the collapsed C10 outfall located upstream of the Arch Street PS which has reduced street flooding.

- The rehabilitation of 28 Camden City regulator structures, with new mechanical equipment installed or removed to allow for the maximization of flows to the CCMUA WPCF.

E. Reduction of Wet Weather Flow from Pennsauken

Pennsauken Township contributes combined sewer flows to the City of Camden's CSS located in the northeast portion of Camden. 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. CCMUA is currently evaluating options for the conveyance of the separated Pennsauken stormwater for discharge to Delaware River back channel through or adjacent to CCMUA's C-32 outfall structure. This conveyance strategy may involve targeted sewer separation in Camden neighborhoods adjacent to Pennsauken or a dedicated stormwater line for the removed Pennsauken stormwater. In either case, CCMUA is studying the optimization of stormwater inlet placement and configuration to mitigate street flooding in East Camden.

F. Flooding:

Street flooding during wet weather remains a major public health and environmental concern within the City of Camden. The results of the model that was developed to characterize the combined sewer system as part of the 2018 System Characterization Report as required by the 2015 NJPDES permit indicates that 90 million gallons of street flooding per year is the result of capacity limitations within the combined sewer system. Most recently, increases to the wet weather capacity at CCMUA WPCF and maintenance of the collection system including the outfalls has led to decreased street flooding in certain areas. However, the relative roles of structural capacity limitations within the sewer system and of nonstructural causes such as blockages is not well understood. Therefore, as outlined in the LTCP, a comprehensive program to understand and address the causes of street flooding is proposed. There are twenty sewersheds that have been associated with the reported street flooding hot spots identified in Camden's 2016 Flood Mitigation Plan.

A Comprehensive Street Flooding Mitigation Program is proposed as part of the LTCP and is required in this permit. This program shall be developed by each city and CCMUA as an early long term CSO control plan implementation action by the City of Camden with the support of CCMUA. The objective is to establish a framework for a comprehensive program to reduce the occurrences of and mitigate the impacts street flooding. The program will establish the empirical basis for street flooding mitigation and assign responsibilities for the prevention of and response to street flooding events. As per the 2020 LTCP:

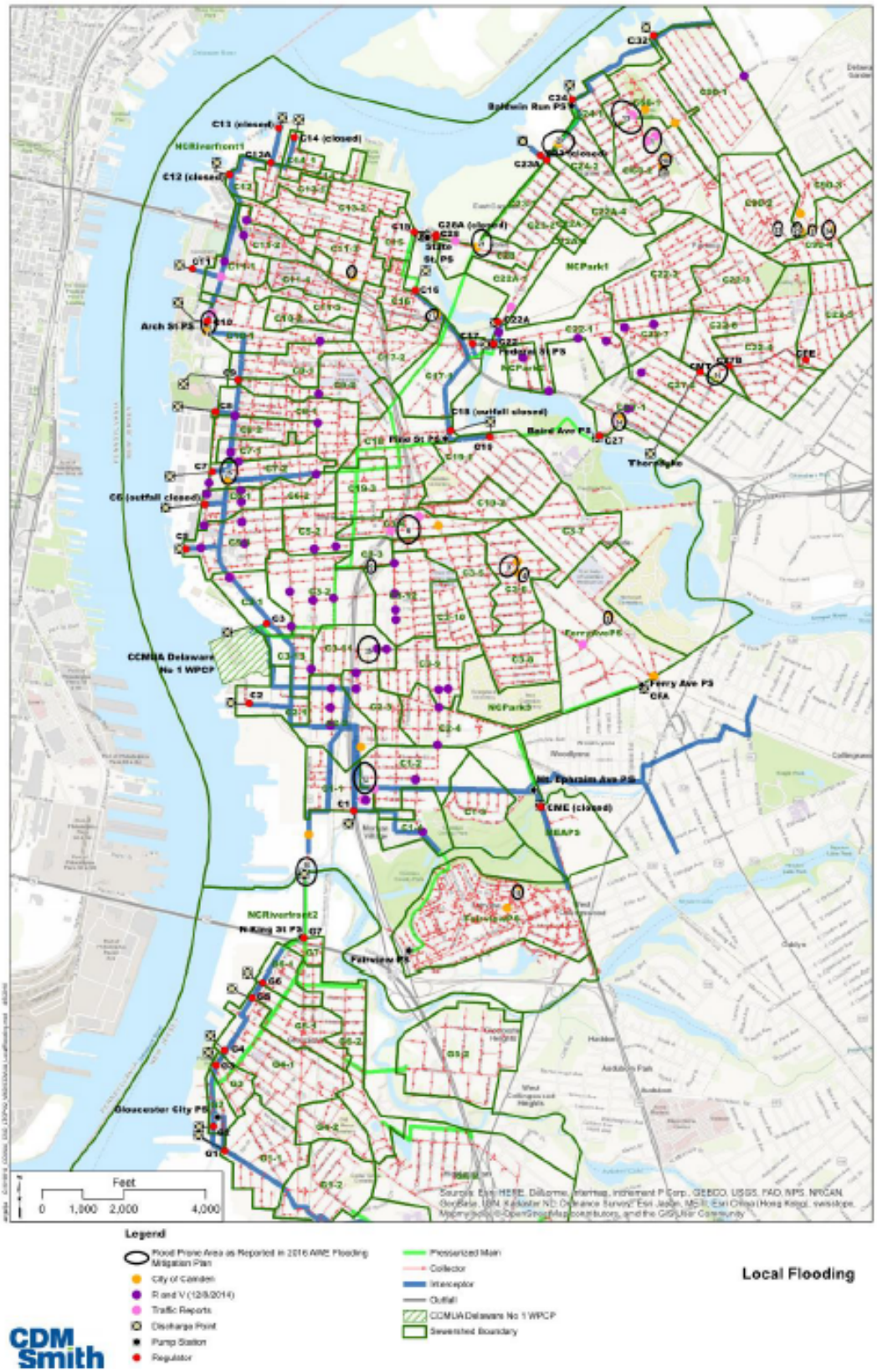


Figure 4-1 – Locations Associated with Street Flooding

G. Green Infrastructure

Green infrastructure is a foundational component of CCMUA's and the Cities of Camden and Gloucester's control strategy due to the many environmental, community, aesthetic, economic and community health benefits intrinsic in green stormwater infrastructure (GSI). By its nature, the ability to implement and the responsibility for the implementation of green stormwater infrastructure is diffuse. The directly connected impervious areas to be addressed using GSI are owned and controlled by all levels of government and private entities ranging from interstate highways and commercial redevelopment to church parking lots. CCMUA and the Cities have limited control over the location, timing and scale of green stormwater projects on private properties or on properties owned by county, state or federal agencies.

Given these institutional constraints, CCMUA and the Cities are proposing the establishment of a framework for the implementation of GSI that would formalize, expand upon and support the current efforts of groups such as the Camden SMART (Stormwater Management and Resource Training) initiative. The intent is to maximize the implementation of GSI 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).

6 Receiving Water Discharge Location Information:

A copy of the appropriate section of a USGS quadrangle map indicating the location of the facility and discharge points is included towards the end of this Fact Sheet.

CSO Outfall Designator: 005A, 007A

General Information		Watershed Information	
Receiving Water:	Newton Creek	Downstream Confluences:	Delaware River Basin – Zone 3
Via :	Outfall pipe	Receiving River Basin:	Lower Delaware River Basin
Classification (a):	FW2-NT (C2)	WMA (b):	Lower Delaware (18)
County:	Camden	Watershed:	Woodbury/Big Timber/Newton Creeks
Municipality:	Camden City	Subwatershed:	Newton Creek (LDRV-Kaighn Ave to LT Ck)
		HUC 14 (c):	02040202120090
		Water Quality Impairments (d):	PCBs in fish tissue, Chlordane in fish tissue, DDT in fish tissue, E. Coli, Arsenic, Total Phosphorus
Outfall Description			
Outfall Configuration:	Tidally submerged pipe		

CSO Outfall Designator: 008A, 009A, 010A

General Information		Watershed Information	
Receiving Water:	Delaware River Zone 3	Downstream Confluences:	Delaware River Basin
Via :	Outfall pipe	Receiving River Basin:	Delaware Estuary
Classification (a):	Delaware River Zone 3	WMA (b):	Lower Delaware (18)
County:	Camden	Watershed:	Delaware River
Municipality:	Camden City	Subwatershed:	Delaware River 3
		HUC 14 (c):	Delaware River 16
		Water Quality Impairments (d):	Chlordane in fish tissue, DDT in fish tissue, Dieldrin in fish tissue, Mercury in fish tissue, Temperature
Outfall Description			
Outfall Configuration:	Tidally submerged pipe		

CSO Outfall Designator: 012A, 013A, 014A, 015A, 016A, 018A, 025A, 026A

General Information		Watershed Information	
Receiving Water:	Delaware River Zone 3	Downstream Confluences:	Delaware River Basin
Via :	Outfall pipe	Receiving River Basin:	Delaware Estuary
Classification (a):	Delaware River Zone 3	WMA (b):	Lower Delaware (18)
County:	Camden	Watershed:	Delaware River
Municipality:	Camden City	Subwatershed:	Delaware River 3
		HUC 14 (c):	Delaware River 16
		Water Quality Impairments (d):	Chlordane in fish tissue, DDT in fish tissue, Dieldrin in fish tissue, Mercury in fish tissue, Temperature
Outfall Description			
Outfall Configuration:	Tidally submerged pipe		

CSO Outfall Designator: 020A, 022A, 023A, 024A, 028A, 029A, 030A, 033A, 034A

General Information		Watershed Information	
Receiving Water:	Cooper River	Downstream Confluences:	Delaware River Basin – Zone 3
Via :	Outfall pipe	Receiving River Basin:	Lower Delaware River Basin
Classification (a):	FW2-NT (C1)	WMA (b):	Lower Delaware (18)
County:	Camden	Watershed:	Cooper River
Municipality:	Camden City	Subwatershed:	Cooper R (Rt 130 to Wallworth gage)
		HUC 14 (c):	02040202110050
		Water Quality Impairments (d):	Chlordane in fish tissue, DDT in fish tissue, PCBs in fish tissue, Arsenic, Lead, E.Coli, pH, Tetrachloroethylene, Trichloroethylene
Outfall Description			
Outfall Configuration:	Tidally submerged pipe		

Footnotes:
(a) The designated uses for these waterbody classifications can be found at N.J.A.C. 7:9B-1.12.
(b) WMA = Watershed Management Area
(c) HUC 14 = 14 digit Hydrologic Unit Code
(d) These parameters are listed on Sublist 5 as impaired for this waterbody as per New Jersey's 2018/2020 Integrated Water Quality Monitoring and Assessment Report (includes 305(b) Report and 303(d) List).

As per the Surface Water Quality Standards at N.J.A.C. 7:9B, the designated uses for the Freshwater 2 (FW2) receiving waters are:

1. Maintenance, migration and propagation of the natural and established biota;
2. Primary and secondary contact recreation;
3. Industrial and agricultural water supply;
4. Public potable water supply after conventional filtration treatment (a series of processes including filtration, flocculation, coagulation, and sedimentation, resulting in substantial particulate removal but no consistent removal of chemical constituents) and disinfection; and
5. Any other reasonable uses.

The designated uses for the mainstem Delaware River and Delaware Bay are those contained in "Delaware River Basin Commission, Water Quality Regulations, Administrative Manual - Part III," Article 3, dated October 23, 1996, including all amendments and future supplements thereto and are described below:

Zone 3 is that part of the Delaware River extending from R.M. 108.4 to R.M. 95.0 below the mouth of Big Timber Creek, including the tidal portions of the tributaries thereof.

The quality of Zone 3 waters shall be maintained in a safe and satisfactory condition for the following uses:
1. a. public water supplies after reasonable treatment,
   b. industrial water supplies after reasonable treatment,
   c. agricultural water supplies;
2. a. maintenance of resident fish and other aquatic life,
   b. passage of anadromous fish,
   c. wildlife;
3. recreation - secondary contact;
4. navigation.

As noted above, these segments of the identified waterbodies are impaired for several parameters. This permit action requires the permittee to reduce the combined sewer overflow volume, frequency and duration at CSO outfalls which should have a corresponding decrease on the discharge of toxic pollutants.

7 Type and Quantity of the Wastes or Pollutants:

The Permit Summary Table within this fact sheet contains a summary of certain parameters discharged from the permittees' CSO outfalls.

8 Summary of Permit Conditions for Combined Sewer Management:

A. NJPDES CSO Permit Overview

The existing NJPDES CSO Permit as issued to the City of Camden on March 12, 2015 (2015 NJPDES CSO Permit) includes NMC and LTCP conditions, consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C, and also includes a requirement to submit an LTCP. This renewal permit serves to include enhanced NMC conditions and LTCP requirements as well as to incorporate CSO controls to meet a minimum wet weather percent capture with an implementation schedule.

B. Components of Nine Minimum Controls

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs

Background and Summary of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal required the permittee to implement and update annually, an Operations & Maintenance (O&M) Manual including an Emergency Plan, in accordance with N.J.A.C. 7:14A-6.12. The O&M Manual is required in order to ensure that the treatment works, including but not limited to the collection system, CSO outfall, solids/floatables facility, regulators, and related appurtenances, that are owned/operated by the permittee, are operated and maintained in a manner to achieve compliance with all terms and conditions of this permit. Additionally, Part IV.F.1 required the permittee to characterize the entire collection system, delineate characterization information in GIS, create Standard Operating Procedures (SOPs) for operations, inspections and schedule preventative maintenance, including the development of an Emergency Plan, and an Asset Management Plan. The Asset Management Plan serves to demonstrate that 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) allocated in the permittee's budget.

Changes were incorporated to Part IV.F.1.h. of this section in a major permit modification dated May 1, 2020. Specifically, this condition was modified to clarify that a schedule regarding identification of infiltration and inflow (I/I) were most relevant as a LTCP measure and Part IV.G.4 was modified as well.

Status of Collection System Cleaning and Maintenance and Outfall Dredging for Camden

Under baseline conditions as established in the 2016 System Characterization Work Plan, the Camden sewer pipes were heavily impacted by accumulated debris and sedimentation. An extensive cleaning program of the collection system began in 2016. This permit establishes and requires Camden to complete cleaning of its system by October 31, 2024. A summary and map of areas cleaned is provided in Attachment B of the September 8, 2023 submission to the Department.

Flows into the interceptor sewers are controlled by regulator structures which admit the dry weather flows plus a portion of the stormwater runoff during wet weather. When the rate of wet weather flows exceeds the flow rates that can be admitted to the interceptor, the remaining wet weather flows are shunted to an outfall pipe to the receiving stream. The City of Camden completed a regulator structure rehabilitation project to restore full functionality of its twenty-eight regulators in 2022.

The Camden outfalls were inspected in 2016. Based on these inspections, CCMUA and Camden undertook a cleaning and dredging program. As many of the outfalls are submerged and in tidal waters, dredging was required to regain full hydraulic capacities. CCMUA has contracted for the dredging of nine outfalls. The City of Camden has undertaken the cleaning of twelve of the twenty-two outfalls within its combined sewer system with an anticipated completion date in 2023.

Status of Collection System Cleaning and Maintenance and Outfall Dredging for Gloucester

Approximately 18 miles of sewer were cleaned and jetted between 2021 and May of 2023 out of a total of 39 miles of sewers. Gloucester City anticipates that the system-wide cleaning will be completed within 2023. A map showing the extent of the system cleaning is provided as Attachment D within the September 2023 LTCP. As a result of regular inspections of Gloucester's seven regulator structures, the need for remedial cleaning of regulator G-1 was identified and completed in May of 2023, resulting in a reduction in street flooding.

In August of 2023 CCMUA conducted an inspection of the Gloucester regulator and outfall structures and identified outfall structures with obstructions. These are expected to be cleaned in 2025 and into 2026 based on

planning, design and permitting work to be completed in 2024. A copy of the 2023 outfall and regulator inspection report is provided as Attachment E to Appendix D within the September 2023 LTCP.

Inflow and Infiltration (I/I) in the CSS

As part of the evaluation of CSO control alternatives conducted by the permittees, the June 2019 DEAR states that I&I reduction will not play a major role in long term CSO control due to the high volumes of wet weather flow generated in the combined sewered areas relative to the volume of I/I contributed from the hydraulically connected sanitary sewered areas. However, Part IV.F.1.h.1.ii of the NJPDES permit requires that I&I be identified and reduced to non-excessive levels as defined at N.J.A.C. 7:14A-1.2. A revised baseline level of I&I in and contributing to the CCMUA, Camden, and Gloucester City CSSs will be determined through the comprehensive flow monitoring and model update to be completed once the Camden and Gloucester sewers and outfall cleaning is completed. The results of this analysis will be integrated into the revised LTCP model and used in the revised control alternatives analysis to be completed in the 2027-2028 time frame.

Renewal Permit Requirements for Operation and Maintenance

The existing 2015 NJPDES CSO permit included enhancements of the NMCs to clarify requirements consistent with the Federal CSO Control Policy and N.J.A.C. 7:14A-11 Appendix C. Specifically, Part IV.F.1 contains three (3) significant components as follows: (i) O&M Manual; (ii) Emergency Plan; and (iii) Asset Management Plan, which are being continued and further clarified in this permit renewal.

i. The O&M Manual provides system operators of POTWs with the comprehensive guidance, procedures, and the necessary technical references to efficiently operate their treatment works. Proper operation and maintenance includes the implementation of detailed SOPs and corrective/preventive maintenance SOPs within a structured maintenance program, adequate funding, effective management, adequate operator staffing, training and process controls.
ii. The Emergency Plan provides operators of POTWs with the comprehensive guidance and procedures to ensure the safe and effective operation of the treatment works during emergencies or disasters of man-made or natural origin.
iii. The Asset Management Plan is a process to ensure that there is sufficient investment in the CSO control strategy as well as the planned maintenance, needed repair, replacement, and upgrade of the infrastructure for the treatment works.

Additional detail on these three requirements is as follows:

i. O&M Manual

Given that the permittee is incorporating CSO control measures as part of the LTCP, revisions and updates of these components are appropriate. The permittee was and is still required to update the Operations & Maintenance (O&M) Manual and establish an Asset Management Plan which are required to be kept on-site. The Emergency Plan is also required to be kept on-site. Note that Part IV.F.1 details the requirements related to the entire treatment works, including but not limited to the collection system, CSO outfall, solids/floatables facility, regulators, and related appurtenances including any green infrastructure which are owned/operated by the permittee, whereas Part IV.G.6 outlines new CSO control measures that will require changes to the O&M Manual, Emergency Plan and Asset Management Plan.

In continuation of the enhancements of the NMCs, this renewal permit requires the permittee to maintain and perform regular updates to the Operations & Maintenance (O&M) Manual, on an annual basis. Also, this renewal permit builds upon the 2015 NJPDES CSO permit language to further clarify the requirement pertaining to the O&M Manual for the treatment works. To supplement and improve this permit condition, the Department is enhancing the requirements for the O&M Manual to address certain requirements for the permittee's treatment works. Specifically, to ensure that the treatment works and facilities are being operated and maintained to

achieve compliance with the terms and conditions of the discharge permit, the O&M Manual must include, but is not limited to, the following details for the treatment works and facilities owned/operated by permittees:

- Normal operating positions, alternate operating positions;
- Start-up, shut-down, and draining procedures;
- Process control;
- Fail-safe features;
- Emergency operation procedures;
- Common operating and control problems;
- Out-of-service procedures;
- Instrumentation and controls descriptions; and
- Engineering design information

The O&M Manual must provide the schedules and procedures pertaining to the preventative maintenance program and corrective maintenance procedures, or references to these procedures in the manufacturer's maintenance manuals for the treatment works' infrastructure.

The collection system cleaning program for the City of Camden must be completed by October 31, 2024. This date was set forth in the August 9, 2023 letter from the Department and confirmed by the permittee in the September 8, 2023 response.

Moving forward, the permittee shall include in the O&M Program and corresponding Manual, a System Cleaning Program which is designed to ensure the entire collection system, including, but not limited to, outfalls and regulators, is sufficiently clean in order to function properly and minimize CSO-related street flooding which can include overflows to basements, streets and other public and private areas. Ensuring the entire collection system is sufficiently clean can be done 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 where the length of the system shall be defined in linear feet/miles. Specifically, for the City of Camden, the total system is 173 miles long. The System Cleaning Program shall also include an annual certification to be sent to NJDEP 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, 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.

ii. Emergency Plan

Additionally, this renewal permit enhances the requirements to maintain and perform regular updates to the Emergency Plan, as necessary. 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 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.

iii. Asset Management Plan

Furthermore, this renewal permit enhances the requirements to maintain and perform regular updates to the Asset Management Plan, as necessary. An Asset Management Plan must incorporate detailed asset inventories, operation and maintenance tasks and a long-range financial planning strategy and to ensure that annual revenue reserves and reinvestment are sufficient to facilitate long-term viability of the treatment works and facilities. The Asset Management Plan must include, but not limited to, the following details:

- Asset inventory/mapping and condition assessment;
- Level of service;
- Criticality/prioritization assessment;
- Life-cycle costing; and
- Long-term funding strategy of the treatment works and facilities.

The Department's Asset Management Technical Guidance can be found at: https://www.nj.gov/dep/assetmanagement/pdf/asset-management-plan-guidance.pdf.

These enhanced permit conditions for all three components are included in Part IV.F.1.

2. Maximum Use of the Collection System for Storage

Background and Summary of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal included permit conditions requiring use of the entire collection system owned/operated by the permittee to be used for in-line storage of sewage for future conveyance to the STP when sewer system flows subside. In summary, the 2015 NJPDES CSO permit required that the collection system be used to store as much flow as possible without causing CSO-related flooding and basement back-ups. This includes maintaining the ability of wastewater to flow freely into and through the system and continuing to evaluate the system for additional storage so that the collection system and STP convey and treat flows to meet the requirements of the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

Renewal Permit Requirements for Maximum Use of the Collection System for Storage

This renewal permit action continues the requirement for the maximum use of the collection system for storage so that the collection system can store as much flow as possible and minimize CSO discharges without causing CSO-related flooding. The renewal permit requires maintaining the ability of wastewater to flow freely into and through the system while also requiring the permittee to evaluate the system for additional storage so that the collection system and STP work together to convey and treat flows to meet the requirements of the Federal CSO Control Policy and NJPDES Regulations. These requirements can be categorized as follows:

a. The permittee shall 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 possible 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., Proper Operation and Regular Maintenance Program Requirements and F.7., Pollution Prevention.

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.

This condition is included in Part IV.F.2.

3. Review and Modification of Pretreatment Requirements to Assure CSO impacts are Minimized

Background and Summary of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal included a permit condition regarding the review and modification of pretreatment requirements. Changes were incorporated to Part IV.F.7.c. of this section in a major permit modification dated May 1, 2020 to improve this language and to clarify the Department's expectations.

Renewal Permit Requirements for Pretreatment Requirements

To ensure consistency with the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C, the Department has retained Part IV.F.3 in the renewal permit with language modifications to emphasize the prioritization of O&M measures. This language is 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. This information shall be used to prioritize O&M activities in portions of the CSS affected by SIU discharges.

All SIU discharges are directed to the treatment plant.

This condition is included in Part IV.F.3.

4. Maximization of Flow to the POTW for Treatment

Background and Summary of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal required the operation and maintenance of 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. The permittee was required to evaluate and implement alternatives for increasing flow to the STP. These alternatives included capacity evaluations of the entire collection system owned/operated by the permittee that conveys flows to the treatment works to determine the maximum amount of flow that can be stored and transported as well as the identification of other activities conducted and/or planned to further maximize flow to the POTW.

Renewal Permit Requirements for Maximization of Flow to the POTW for Treatment

The Department has determined that the existing permit condition related to Maximization of Flow to the POTW for Treatment is still applicable to ensure the ongoing operation of the system in an effective manner and to ensure that the CSO controls are properly implemented to address the Presumption Approach as set forth in the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. However, this permit condition requires updates to reflect the work completed as part of the LTCP. As a result, this renewal permit action continues the requirement to maximize the conveyance of wastewater to the STP for treatment with wording modifications. This includes the operation and maintenance of the collection system to increase flow to the STP in order to convey and treat flows to meet the requirements of the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

This condition is included in Part IV.F.4.

5. Prohibition of CSOs During Dry Weather

Background and Summary of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal included a permit condition regarding the prohibition of dry weather overflows at Part IV.F.5 where the term "dry weather overflow" is defined within the permit as follows:

> "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 wastewater, 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."

Renewal Permit Requirements for Prohibition of CSOs During Dry Weather

The Department has determined that the existing permit condition related to DWOs is still applicable. As a result, this renewal permit action retains the DWO definition and continues the requirement to prohibit CSOs during dry weather. This condition also serves to ensure the ongoing operation of the system in an effective manner. Part IV.F.5 is included in the renewal permit as follows:

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.

This condition is included in Part IV.F.5.

6. Control of Solid and Floatable Materials in CSOs

Background and Summary of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal included a permit condition that required the permittee to capture and remove solids/floatables which cannot pass through a bar screen having a bar or netting spacing of 0.5 inches or less. The permit further stipulates that this cannot be achieved by reducing the particle size of the solids/floatables. Captured debris shall be removed as necessary to ensure that there will be no flow restrictions during the next CSO discharge event and captured debris must be disposed of properly.

Renewal Permit Requirements for Control of Solid and Floatable Materials in CSOs

Prior to the issuance of the 2015 NJPDES CSO permit, the permittee installed a working solids/floatables netting facility with a spacing of 0.5 inches or less. Thus, the Department has determined that the permittee is in compliance with Part IV.F.6. of the existing permit.

The Department has determined that the existing permit condition related to the Control of Solid and Floatable Materials in CSOs is still applicable to the ongoing operation of the system in an effective manner. As a result, this renewal permit action continues the requirement to control solid and floatable material from being discharged from CSO outfalls. Additionally, the Department acknowledges that the permittee had implemented a solids/floatables control facility prior to issuance of the 2015 NJPDES CSO permit.

This condition is included in Part IV.F.6.

7. Pollution Prevention

Background and Summary of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal included a permit condition regarding implementation and upgrade of pollution prevention measures to prevent and limit contaminants from entering the collection system owned/operated by the permittee that conveys flows to the treatment works. Further, the permittee is required to enforce rules and regulations on illegal connections and unauthorized discharges into the POTW. Finally, the permittee was required to submit a schedule to revise applicable rules, ordinances and sewer use agreements to address the reduction of I/I into the collection system in accordance with Part IV.F.1.h.

Changes were incorporated to Part IV.F.7 in a major permit modification dated May 1, 2020. Specifically, this condition was modified to clarify that a schedule regarding identification of infiltration and inflow (I/I) were most relevant as a LTCP measure and Part IV.G.4 was modified as well.

Renewal Permit Requirements for Pollution Prevention

The Department has determined that the existing permit conditions related to pollution prevention are still applicable as these conditions are reflective of good operating practices. In addition, some of these conditions are already required by other regulatory mechanisms (i.e., solid waste collection and recycling ordinances). NJPDES CSO permit language regarding Pollutant Prevention is consistent with the NJPDES MS4 permit, pursuant to N.J.A.C. 7:14A-24, as is applicable to those portions of the town that are separately sewered.

This condition is included in Part IV.F.7 as follows:

a. The permittee shall continue 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 A, where such inlets are in direct contact with repaving, repairing (excluding repair of individual potholes), reconstruction, resurfacing (including top coating of chip sealing with asphalt emulsion or a thin base of hot bitumen) or alterations of facilities owned/operated by the permittee. Any exemptions to this standard are listed in Appendix A.
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 street litter ordinances and rules and regulations on illegal connections and unauthorized discharge(s) into the POTW.

This condition is included in Part IV.F.7.

8. Public Notification to Ensure that the Public Receives Adequate Notification of CSO Occurrences and CSO Impacts

Background and Summary of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal requires two permit conditions regarding public notification. The first of these involves posting CSO Identification Signs at every CSO outfall. The permit specifies how the signs should be installed, the size of the signs and what the signs must display. The second set of permit conditions regarding public notification are related to informing the affected public of where CSOs may be occurring based on rainfall data. The permit lists measures that can be taken by the permittee in order to inform the public of CSOs, including by website.

Renewal Permit Requirements for Public Notification

The permittee installed the required signs as specified in the permit at the CSO outfalls. In addition, the permittee incorporated measures to comply with other components of this permit condition such as creation of a notification system. As a result, the Department has determined that the permittee is in compliance with Part IV.F.8. of the existing permit.

The Department has determined that the existing permit condition related to Public Notification is still applicable and is necessary to keep the public informed of the locations of CSOs. As a result, this renewal permit action continues the requirement to maintain a CSO Identification Sign at each CSO outfall including information as to how the signs should be installed, the size of the signs and what the signs must display. The renewal permit also continues the requirement for the permittees to provide up-to-date information regarding where CSO discharges may be occurring on its website. This condition is included in Part IV.F.8 as follows:

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 NJ0108812.
- Discharge Serial No. (e.g. 005A).

- 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.

Please note that these requirements differ from, and are less extensive than, the Public Participation requirements of the LTCP. See the LTCP Section G.2 below for details of the Public Participation requirements.

This condition is included in Part IV.F.8.

9. Monitoring to Effectively Characterize CSO Impacts and the Efficacy of CSO Controls

Background and Summary of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal required the permittee to 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. See also: https://www.nj.gov/dep/dwq/pdf/cso-quick-guide-dmr.pdf. Flow information can be assessed through appropriate modeling or by an appropriately placed flow meter/totaling device, level sensor, or other appropriate measuring device, where the required information shall be reported on the monitoring report form (MRF).

Renewal Permit Requirements for Monitoring to Effectively Characterize CSO Impacts and the Efficacy of CSO Controls

As per Part III of the existing NJPDES permit, the permittee submitted MRFs to the Department through monthly Discharge Monitoring Reports (DMRs) for the parameters specified above. Reported data on the DMRs include the parameters: Solids/Floatables, Precipitation and Duration of Discharge. Throughout the existing NJPDES permit cycle, the permittee submitted monthly DMRs with data for these parameters and is therefore in compliance with Part IV.F.9. This data can be found in the DEP DataMiner at: https://www13.state.nj.us/DataMiner and is also tracked by outfall at NJ CSO Outfalls (arcgis.com).

This renewal permit action continues the requirement of monitoring the CSO discharge events. This includes reporting Duration of Discharge, Precipitation, and quantity of Solids/Floatables removed from the CSO on a MRF. This permit condition requires a measure of CSO discharge events by measuring CSO “Duration of Discharge” to provide a measure of the effect of CSO controls on discharge events. In addition, these reporting requirements will continue to track precipitation trends by assessing precipitation amounts at a local rain gage. A summary of each parameter is as follows:

- Duration of Discharge represents the number of days (in whole numbers) that at least one discharge occurred from that outfall (i.e., not the number of discharge events). Sample type is “Estimated”.

- Precipitation represents the total amount of precipitation (i.e. rainfall and snowmelt) measured during the monitoring period from a single rain gauge representative of the area.
- Solids/Floatables (S/F) represents the total volume (reported in cubic yards) of all S/F removed and disposed of from all outfalls during the month. Reporting a S/F value is only necessary when the S/F material is measured for disposal (e.g. filled dumpsters).

This condition is included in Part IV.F.9 as follows:

a. The permittee shall monitor the CSO discharge events and record the date, "Duration of Discharge", Precipitation, 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.

C. Components of Long Term Control Plan (LTCP)

1. Characterization, Monitoring, and Modeling of the Combined Sewer System

Background of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal required the permittees to characterize their sewer system and CSO discharges as part of the LTCP. The purpose of this characterization was to review the entire collection system as well as to identify all CSO outfalls and water quality impacts from CSO outfalls. Major elements of the characterization included: 1) rainfall records, 2) any activity necessary to understand the CSO discharges including sensitive areas and pollution sources, such as Significant Industrial Users (SIUs), 3) monitoring data from CSO discharges and ambient in-stream monitoring data for pathogens, 4) modeling and 5) identification of sensitive areas. The 2015 permit also encouraged the use of previously submitted studies, when appropriate.

A work plan was required by January 1, 2016 to be followed by a System Characterization Report by July 1, 2018.

Summary of Compliance with 2015 Permit Requirement

A work plan as entitled “System Characterization Report Work Plan” dated October 2015 (revised February 2016 and July 2016) was submitted to the Department. The Work Plan was approved by the Department on August 3, 2016.

The System Characterization Report is entitled “System Characterization Report” dated June 2018 (revised September 17, 2018 and January 14, 2019) was submitted to the Department. The objective of the System Characterization Report (SCR) is to provide CCMUA, the City of Camden and Gloucester City with a comprehensive and empirical understanding of the physical nature and hydraulic performance of their respective sewerage systems for use in optimizing the performance of the current systems and in the development of CSO control alternatives. The SCR is organized into eight sections: Introduction; Combined Sewer System Characterization; Hydrologic Characterization; Receiving Waterbodies; Combined Sewer System Monitoring and Modeling; Rainfall Analysis and Typical Hydrologic Record; Combined Sewer System Performance; Institutional Context; and Control Alternatives Baseline Conditions.
A response to the “Sewer System Characterization Report” was issued by the Department on January 24, 2019.

A schematic of the system that documents the system components is as follows from the "Sewer System Characterization Report":

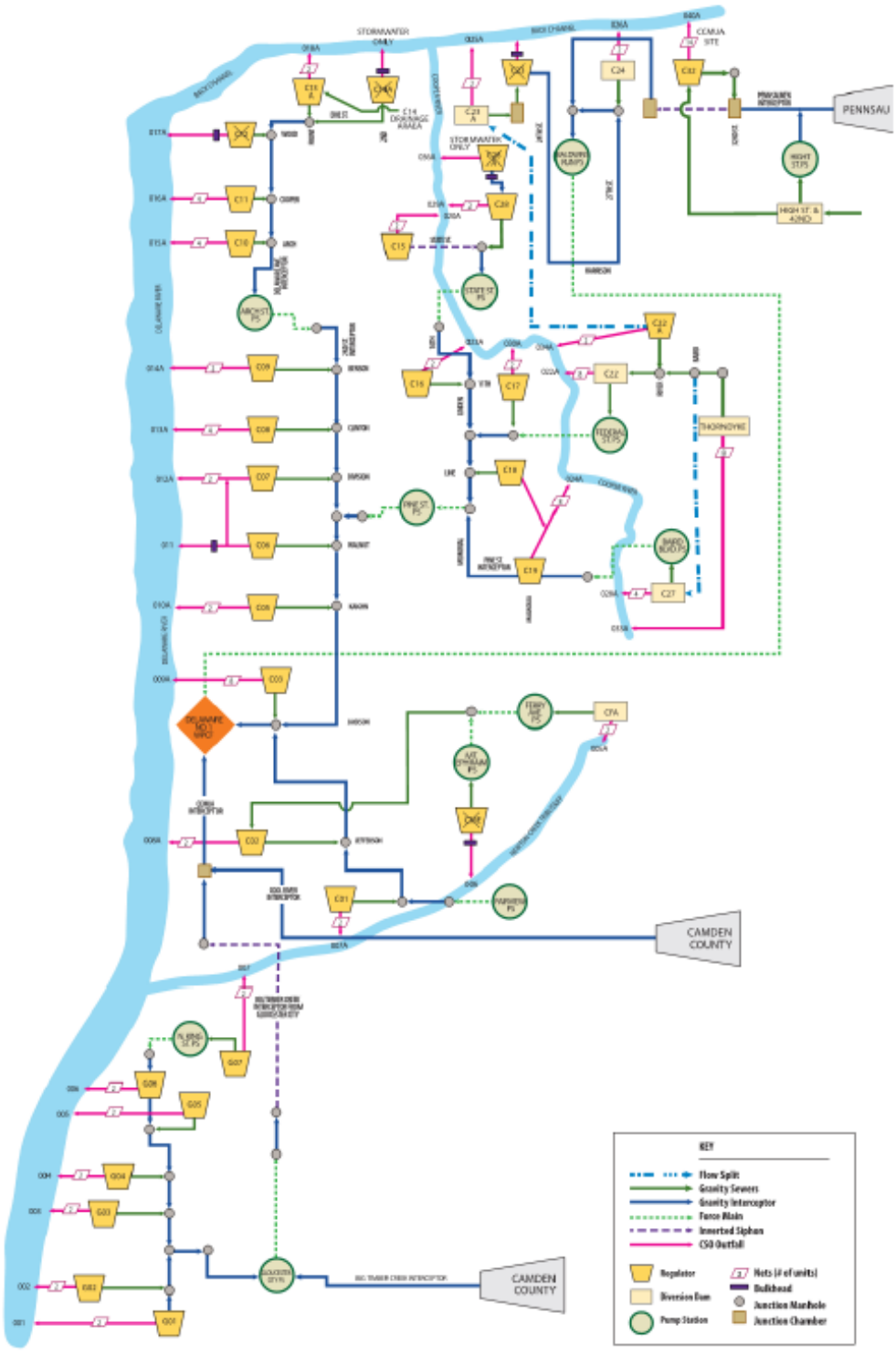


Figure 2-2 – System Schematic

Renewal Permit Requirements for Characterization, Monitoring and Modeling of the Combined Sewer System

The above information was submitted to comply with the Characterization, Monitoring, and Modeling of the Combined Sewer System requirement. This information was utilized to develop the hydrologic and hydraulic model which was then used to assess minimum wet weather percent capture. The Department determined that the permittees have submitted sufficient information to comply with the Characterization, Monitoring, and Modeling of the Combined Sewer System requirement. The Department approved the Sewer System Characterization Report on January 24, 2019 with certain conditions.

This renewal permit includes information in Part IV.G.1 to inform the status of the Characterization, Monitoring, and Modeling of the Combined Sewer System requirement; to acknowledge submittals received; and to highlight major report elements. These elements will help inform the overall CSO contributions and to assess compliance with the Presumption Approach as set forth in the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

This condition is included in Part IV.G.1.

2. Public Participation

Background of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal required the permittee to engage in public participation and to submit a Public Participation Process report within 36 months of the effective date of that permit. The purpose of this requirement was to actively involve the affected public throughout each of the 3 steps of the LTCP process. The affected public includes rate payers (including rate payers in the separate sewer sections), industrial users of the sewer system, persons who reside downstream from the CSOs, persons who use and enjoy the downstream waters, and any other interested persons. The Public Participation Process Plan was required to include the following elements:

- Conduct outreach to inform the affected/interested public (during the development of the permittee's LTCP) through various methods which may include: public meetings, direct mailers, billing inserts, newsletters, press releases to the media, postings of information on the permittee's website, hotline, development of advisory committees, etc.; and
- Invite members of the affected/interested public to join a Supplemental CSO Team to work with the permittee's assigned staff, consultants and/or contractors.

Regarding the establishment of the Supplemental CSO Team, this team was required to work as an informal work group as a liaison between the general public and the decision makers for the permittee regarding the planning and development of CSO control alternatives. As outlined in the 2015 NJPDES CSO permit, the goals of the Supplemental CSO Team could consist of the following elements:

- Meet periodically to assist in the sharing of information, and to provide input to the planning process;
- Review the proposed nature and extent of data and information to be collected during LTCP development;
- Provide input for consideration in the evaluation of CSO control alternatives; and
- Provide input for consideration in the selection of those CSO controls that will cost effectively meet the Clean Water Act (CWA) requirements.

Summary of Compliance with 2015 Permit Requirement

The permittee conducted and participated in a broad range of activities to comply with Part IV.G.2 in order to implement a public participation process to actively involve the public. CCMUA and the City of Camden agreed to actively and consistently work together to engage, inform and educate the public. A report dated June 2018, as entitled "Public Participation Report" was submitted which outlines public participation activities that were conducted to inform the LTCP.

The following is a summary of the major elements of the public participation process:

- The City of Camden and CCMUA created a CSO Supplemental Team that made up of 20 individuals representing more than 15 entities in order to be representative of the area and its needs. The stated purpose of the CSO Supplemental Team was to gain public perspective on CSOs, local water quality issues and sewer system problems including flooding. CSO Supplemental Team invitees were asked to continue to encourage, identify and invite people and/or entities to be involved in the LTCP process. CSO Supplemental Team meetings were held on May 25, 2017; December 13, 2017; July 17, 2018; June 18, 2019; and January 16, 2020.

- The CCMUA website (http://www.ccmua.org) provides a central resource for relevant information available to the general public. Media coverage of the LTCP Team's actions in promoting information regarding CSO problems and solutions are listed in News Archive on the CCMUA website.

- The CCMUA designed brochures to inform their rate payers of various stormwater-related issues that affect the county. The brochures are as follows:
  - 7 SMART Steps to reduce neighborhood flooding and improve stormwater management.
  - How to Prevent Stormwater Pollution.
  - Camden County Conserves – Saving Water, Saving Money.
  - Toilets Are Not Trashcans.

- The Camden SMART (Stormwater Management and Resource Training) Initiative, a voluntary collaboration among the City of Camden, CCMUA, Cooper's Ferry Partnership, Rutgers Cooperative Extension Water Resources Program, New Jersey Tree Foundation and the NJ Department of Environmental Protection was formed in 2011 to protect human health, improve conditions for economic development, improve water quality and enhance the quality of life for the residents of Camden City. The Camden SMART Initiative also had a public outreach component to CSO education.

- 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, 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.

- The Camden Rain Barrel Installation Program began in late June 2017 and community meetings are set up throughout the City of Camden. City residents who attend a one-hour meeting are then eligible to have a free rain barrel installed at their home. The one-hour meeting describes how the rain barrel functions and the problem with combined sewer systems. This educational program is presented by the Pennsylvania Horticulture Society and Camden SMART Partners are responsible for the promotion of the program and make the arrangements for the meetings. Flyers are printed and distributed by the Camden PowerCorps and by the host organization.

- The City of Camden and CCMUA conducted outreach through conventional media and the CCMUA website. The actions were categorized into one or more of the following:
  - Water conservation efforts, including green infrastructure and rain barrel programs.
  - Impact of combined sewer overflows on environmental justice communities.
  - Reduction of combined sewer overflows as a best management practice for wastewater utilities.
  - Public and organizational recognition of CCMUA/Camden SMART/Camden Collaborative Initiative efforts.

- Contribution of green space and parks to stormwater management.
- Impact of climate change on water infrastructure planning.
- Wastewater treatment as a resource (e.g. for energy generation and process cooling)
- Publicization of innovative financing for infrastructure and other techniques to support stormwater reduction.

- Environmental stewardship events were held in Camden so that all stakeholders including local citizens, local workers, non-profits, and governmental entities can be educated about, and actively participate in, the green infrastructure projects addressing combined sewer flooding and overflows.
  - 5/4/2018 and 5/11/2018 – Subaru staff rain garden maintenance.
  - 4/16/2018 – Tree planting at Gateway Park.
  - 4/11/2018 – Renovation of rain garden at Urban Promise School.
  - 10/12/2017 – Camden Public School, Brimm Medical Arts.
  - 9/20/2017 – Camden City's Aramark Building Communities Day.
  - 9/17/2017 – Rutgers Environment Stewards.
  - 8/20/2017 – New Jersey American Water employees 29th Street Rain Garden maintenance.
  - 6/7/2017 – Camden Environmental Summit.
  - 4/28/2017 – Arbor Day celebration.
  - 9/15/2015 – Stantec's Union field rain garden.
  - 5/13/2015 – Home Depot volunteers rain garden maintenance.

Renewal Permit Requirements for Public Engagement

The Department is committed to active public outreach and engagement during the planning, design and construction of CSO control projects. The Public Participation outreach requirements of the 2015 permit were established to introduce, inform, and gather feedback from the interested public on the steps of the development of the LTCP. This permit, which now implements the LTCP, requires that Public Participation changes. Future public participation should be designed to inform, educate and engage specific to implementation of the CSO control projects included in the Implementation Schedule. Future public participation should include education of the public about the status of the program; document progress in implementing the program; and inform neighborhood residents before, during, and after construction. Given that the outreach requirements under Public Participation must change, this section of the permit is being renamed Public Engagement.

Renewal permit conditions regarding Public Outreach and Engagement specific to the CSO control projects specified in Part IV.G.4 are as follows:

- The permittee shall conduct a public engagement process to inform, educate and engage members of the hydraulically connected communities in accordance with Part IV.G.10. The goal of this process is to generate participation and collect input from the affected community and the interested public.
- 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.
- The permittee is required to hold regular public meetings (virtual, in person, or a combination of both) in order to:
  - Inform the affected community and interested public of the ongoing progress of implementing the LTCP including reports of project status and its present impact on the local community.

- Continue to identify areas of combined sewer related flooding.
- Allow the affected community and interested public an opportunity to provide input on the siting of GI as required by the permit.
- Engage the affected community and interested public in solutions they can implement to further 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.
- 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 other potential impacts to the residents in the vicinity of any CSO mitigation projects.

- The frequency of meetings 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.

- 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.

- For each LTCP, permittees must designate one LTCP outreach coordinator. This coordinator (or any another person designated by the permittee) shall be available to maintain regular communication with the affected community and interested public including, but not limited to:
  - 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 affected community and 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.
  - Engage the affected community and interested public in order to solicit individuals who are willing to become involved.
  - Post meeting invitations (including dates and times) on the website at least one month in advance.
  - Post handouts or other meeting materials on the website within one week after the meeting.
  - Make data available on the amount of public feedback received including the number of meeting attendees.
  - Any project identified in the Implementation Schedule in Section G.8. below must display signage indicating that the project is required by the LTCP.

- 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.

- Public meetings shall be live streamed and made available to the affected community interested public for viewing afterwards including materials in the language(s) appropriate to the majority of community demographics.

- Outreach materials, including physical handouts and websites, should be produced in the language(s) appropriate to the majority of community demographics.

This condition is included in Part IV.G.2.

3. Consideration of Sensitive Areas

Background of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal included a permit condition regarding Consideration of Sensitive Areas as part of the LTCP. Specifically, the permittee is required to give the highest priority to controlling CSOs to sensitive areas consistent with the Federal CSO Control Policy as well as N.J.A.C. 7:14A-11, Appendix C. Sensitive areas include designated Outstanding National Resource Waters, National Marine Sanctuaries, waters with threatened or endangered species and their habitat, waters used for primary contact recreation (including but not limited to bathing beaches), public drinking water intakes or their designated protection areas, and shellfish beds. As a result, the permittee's LTCP was 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.

Summary of Compliance with the 2015 Permit Requirement

In accordance with Part IV.D.3.b.iv of the existing NJPDES permit, the permittee was required to submit a Consideration of Sensitive Areas report within 36 months from the effective date of the permit. CCMUA, the City of Camden and Gloucester City submitted the "Baseline Consideration of Sensitive Areas" dated June 2018. The report provided an analysis to identify any sensitive water bodies and the CSO outfalls that discharge to them. Affected waters include the Delaware River, Cooper River, and Newton Creek.

The Department issued findings on this report in a technical comment letter dated September 20, 2018 which subsequently resulted in revisions to the report. The Department's findings included concurrence that there are no Outstanding National Resource Waters or National Marine Sanctuaries within the Study Area; and there are no operational shellfish beds in the vicinity of the CSO outfalls at this time.

The Department further determined that there are no active surface water intakes used for drinking water in New Jersey in the vicinity of the CSO outfalls based on consultation with the Department's Division of Water Supply and Geoscience that oversees data management for surface water intakes. The closest intakes are in Delran (approximately 6 miles) and Burlington City (approximately 15 miles). The Department also agrees that the City of Philadelphia has three (3) surface water intakes namely Belmont, Queen Lane and Baxter (www.phila.gov/2016waterquality.com) where only the Baxter intake utilizes the Delaware River as the water source. The National CSO Control Policy and EPA guidance do not specify a set distance with respect to proximity of the CSO outfalls for this review element. However, the Department acknowledges the distance from the northernmost CSO outfall to the closest surface water intake.

Regarding waters with threatened or endangered species and their habitat, the Department issued findings that the areas of the Delaware River in the vicinity of the outfalls for Camden City (DSNs 008A, 009A, 010A, 012A, 013A, 014A, 015A, 016A, 018A, 025A, and 026A) are potential habitat for the Atlantic Sturgeon, Shortnose Sturgeon and one (1) or more freshwater mussels namely Eastern Pondmussel, Yellow Lampmussel, and/or Tidewater Mucket. Regarding the areas of the Cooper River in the vicinity of the outfalls for Camden City (DSNs 020A, 022A, 023A, 024A, 028A, 029A, 030A, 033A and 034A), the Department issued findings that these areas are potential habitat for the above referenced mussels. Note that the Atlantic Sturgeon and Shortnose Sturgeon are included on the federal threatened and state threatened species list whereas the Eastern Pondmussel, Yellow Lampmussel and Tidewater Mucket are all considered state threatened species. As a result, the Department determined that these outfalls discharge to a Sensitive Area.

The Department determined in its December 17, 2018 approval letter that the Baseline Consideration of Sensitive Areas report sufficiently addressed all review elements for the Consideration of Sensitive Areas as included in the existing NJPDES permit.

Renewal Permit Requirements for Consideration of Sensitive Areas

This renewal permit action requires CSO control measures to be implemented consistent with the Presumption Approach within the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. 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 to meet the minimum 85% wet weather capture requirement consistent with the Presumption Approach.

This condition is included in Part IV.G.3.

4. Evaluation of Alternatives

Background of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal required the permittees to evaluate a range of CSO control alternatives to meet the requirements of the CWA as set forth in the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C using either the Presumption Approach or the Demonstration Approach as part of the LTCP. The CSO control alternatives included: green infrastructure; increased storage capacity in the collection system; STP expansion and/or storage at the plant; I/I reduction; sewer separation; treatment of the CSO discharge; and CSO related bypass of the secondary treatment of the STP. In evaluation of each CSO control alternative, the permittee was required to use hydrologic, hydraulic and water quality models to simulate the existing conditions and the conditions after construction and operation of the chosen alternative(s). Subsequent to evaluating the CSO control alternatives, the permittees were required to choose an approach to ensure that the requirements of the CWA are met for each group of hydraulically connected CSOs.

The "Presumption Approach" is a program that presumes to provide an adequate level of control to meet the water quality-based requirements of the CWA. To utilize this approach, the permittee was required to demonstrate any of the following criteria:

- No more than an average of four overflow events per year from a hydraulically connected system;
- The elimination or the capture for treatment of no less than 85% by volume of the combined sewage collected during precipitation events on a hydraulically connected system-wide annual average basis; or
- The elimination or removal of no less than the mass of the pollutants identified as causing water quality impairment.

The "Demonstration Approach" is a program that does not meet the criteria of the Presumption Approach but demonstrates that a selected control program is adequate to meet the water quality-based requirements of the CWA. To utilize this approach, the permittee would be required to demonstrate each of the following:

- The planned control program is adequate to meet Water Quality Standards and protect designated uses unless water quality standards or uses cannot be met as a result of natural background conditions or pollution sources other than CSOs;
- The CSO discharges remaining after implementation of the control program will not preclude the attainment of WQS or the receiving waters' designated uses or contribute to their impairment;
- The planned control program will provide the maximum pollution reduction benefits attainable; and
- The planned control program is designed to allow cost effective expansion or cost effective retrofitting if additional controls are subsequently determined to be necessary to meet WQS or designated uses.

Changes were incorporated to Part IV.G.4 in a major permit modification dated May 1, 2020. Specifically, this condition was modified to clarify that requirements pertaining to the identification of infiltration and inflow (I/I) as originally included in Part IV.F.1.h were more relevant as a LTCP measure in Part IV.G.4.

Summary of Compliance with the 2015 Permit Requirement

Development and Evaluation of Alternatives Report (DEAR):

Prior to the submission of the LTCP, the permittees were required to submit a Development and Evaluation of Alternatives Report (DEAR). The objective of the DEAR submission was to provide a comprehensive evaluation of CSO control alternatives that would enable the selection of alternatives to ensure the CSO controls would meet the Clean Water Act; will be protective of the existing and designated uses; give the highest priority to controlling CSOs to sensitive areas; and address minimizing impacts from SIU discharges. The DEAR was supported by several foundational studies as submitted by the permittee that culminated with the preparation of the LTCP.

The percent capture equation specified in Section 2.3 of the revised DEAR is as follows:

$$\textit{Percentage Capture} = 1 - \frac{(\textit{Total CSO Volume} + \textit{Total Flooding Volume})}{(\text{Total System WW Inflow} - \text{Total WW Flow from Separate Sanitary Communities})}$$

As described within the DEAR, the permittee divided 30 active outfalls within the combined sewer system were divided into hydraulically connected and geographically proximate groupings. A listing of the sewershed locations and general characteristics is shown in Table 2-1 of the DEAR:

Table 2-1 – Sewershed Location and General Characteristics

Sewershed / Regulator				Owner Municipality	Receiving Stream	Contributing Area (acres)
Count	Name		Status			
1	C1		Active	Camden	Newton Cr.	422
2	C2		Active	Camden	Delaware R.	193
3	C3		Active	Camden	Delaware R.	686
4	C5		Active	Camden	Delaware R.	104
5	C6		Active	Camden	Delaware R.	52
6	C7		Active	Camden	Delaware R.	66
7	C8		Active	Camden	Delaware R.	100
8	C9		Active	Camden	Delaware R.	103
9	C10		Active	Camden	Delaware R.	86
10	C11		Active	Camden	Delaware R.	175
11	C12		Inactive	Camden	Delaware R.	15
12	C13	C13	Inactive	Camden	Delaware R. back Channel	94
		C13A	Active			
13	C14		Inactive	Camden	Delaware R. back Channel	27
14	C15		Active	Camden	Cooper R.	25
15	C16		Active	Camden	Cooper R.	33
16	C17		Active	Camden	Cooper R.	129
17	C18		Active	Camden	Cooper R.	79
18	C19		Active	Camden	Cooper R.	179
19	C22		Active	Camden	Cooper R.	518
20	C22A		Active	Camden	Cooper R.	81
21	C23A	C23	Inactive	Camden	Delaware R. back Ch.	67
		C23A	Active	Camden	Delaware R. back Ch.	
22	C24		Active	Camden	Delaware R. back Ch.	66
23	C27		Active	Camden	Cooper R.	120
24	C28	C28	Active	Camden	Cooper R.	33
		C28A	Inactive	Camden	Cooper R.	
25	C32		Active	CCMUA	Delaware R. back Ch.	491
26	CFA		Active	Camden	Newton Cr.	170
27	CME		Inactive	Camden	Newton Cr.	122
28	G1		Active	Gloucester	Delaware R.	160
29	G2		Active	Gloucester	Delaware R.	16
30	G3		Active	Gloucester	Delaware R.	20
31	G4		Active	Gloucester	Delaware R.	144
32	G5		Active	Gloucester	Delaware R.	182
33	G6		Active	Gloucester	Delaware R.	468
34	G7		Active	Gloucester	Newton Cr.	10
Totals						5,235

These groupings are also shown in Figure 2-2:

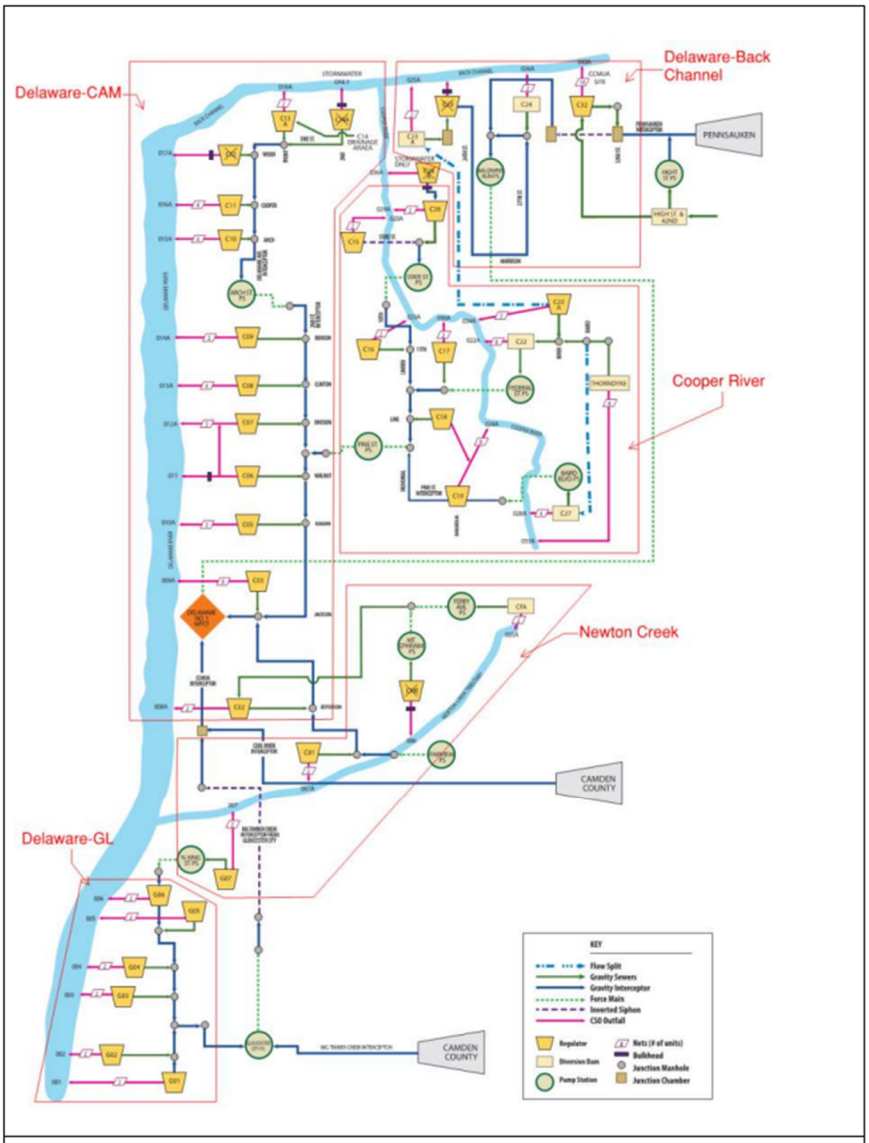


Figure 2-2 – Logical Groupings of Outfalls - Schematic View

Table 2-2 of the DEAR shows a list of active outfalls and the total number of active outfalls by group:

Table 2-2 – CSO Outfall Groupings

Outfall Grouping		Active Outfalls	No. of Active Outfalls
1	Delaware River – Camden	C2 – C13A	9
2	Delaware River – Gloucester	G1-G6	6
3	Delaware River – Back Channel	C23A, C24, C32	3
4	Cooper River	C15-C19, C22, C22A, C27, C28, Thorndyke	9
5	Newton Creek	C1, CFA, G7	3
	Total		30

As stated within the DEAR, the expansion of wet weather treatment capacity at WPCF, along with the restoration of the hydraulic capacity of the Camden collection system and controlling runoff from 10% of the directly connected impervious area (DCIA), will not result in 85% system-wide wet weather capture. In addition, system

hydraulics preclude achievement of the 85% capture target through the expansion of the treatment plant and source reduction alone. Therefore, either satellite facilities and / or expanded conveyance capacities will be required in some subsystems to meet regulatory control targets. A summary of projected attainment of 85% capture from the DEAR as well as descriptive language of the relative amounts of contributing acres within the system is as follows:

Delaware River – Camden: Expansion of the WPCF and attainment of GSI with the systemwide control of runoff from 10% of the DCIA will allow for wet weather percent capture of at least 85%. As per Table 2-1 and 2-2 above, the Delaware River – Camden group encompasses 9 outfalls where the number of contributing acres is approximately 32% of the entire system. This system includes outfall C-3 which has the largest number of contributing acres within the system namely 686 acres.

Delaware River – Gloucester: – A conveyance only 85% capture control option would be feasible through the operation of the Gloucester City pump station to 45 MGD during wet weather along with regulator modifications and interceptor upsizing. Potential impacts on other areas served by the Gloucester City pump station would need to be evaluated and managed. A satellite treatment or storage facility for Gloucester City would be hydraulically feasible. Potential sizes and sites of a Gloucester facility and relationship to the Gloucester interceptor sewer capacity must be evaluated.

Delaware River – Backchannel: The Delaware River Backchannel subsystem is hydraulically isolated from the impacts of expanding the WPCF by the current capacity limits of the Baldwins Run pump station and force main. By removing the Pennsauken wet weather flow at High Street that is currently routed into the Camden Collection system, the need for satellite treatment or storage at C-32 could be eliminated. The Baldwin Run's pump station would need to be upgraded to 25 MGD capacity which could be possible without upsizing the force main to the WPCF. Outfall C-32 has one of the largest amount of contributing acres namely 491 acres.

Cooper River: The Cooper River is hydraulically isolated from the impacts of expanding the WPCF by the capacity limits of the Pine Street pump station and force main. As a result, achieving 85% capture in the Cooper River subsystem will require satellite treatment or storage and/or significant conveyance capacity upgrades starting at the C-27 and Thorndyke outfalls to the WPCF through a dedicated process train or a combination of other high rate treatment processes.

Newton Creek: Expansion of the WPCF and attainment of GSI with the systemwide control of runoff from 10% of the DCIA will allow for wet weather percent capture of at least 85%. As per Table 2-1 and 2-2 above, the Newton Creek group encompasses 3 outfalls that includes 714 acres which encompasses 14% of the entire system.

The DEAR provided sufficient analysis of the required CSO technologies and was approved by the Department on January 30, 2020.

Selected Alternatives in the LTCP:

The Evaluation of Alternatives is supported by several foundational studies as submitted by the permittees that culminated with the preparation of the LTCP. As described within the LTCP, the permittees state that LTCP recommendations are based upon information and evaluations performed during the earlier phases of the planning process, including the characterization of the receiving waters, hydraulic and water quality modeling, screening of CSO control technologies, development and evaluation of alternatives, public participation, and the nine minimum controls.

The LTCP was submitted in September 2020. The Department issued technical comment letters and requests for information as cited in the Contents of the Administrative Record. A revised version of the LTCP dated September 2023 incorporated responses to the Department's requests for information and serves to update the 2020 report to reflect progress to date.

A summary of projects included in Section 8 of the LTCP is as follows:

Due Date	Permittee Lead	Activities
2023	Gloucester	Complete initial inspection & cleaning of 100% of Gloucester collection system.
2024	Camden	Complete initial inspection & cleaning of 100% of Camden collection system.
2025	CCMUA	Begin new flow monitoring to assess flow levels in the in the CCMUA, Camden & Gloucester systems.
	Gloucester	Complete Gloucester CSO outfall cleaning.
	Camden & Gloucester	Formalize Green Stormwater Infrastructure (GSI) Programs.
	Camden & Gloucester	Formalize Street Flooding Mitigation Programs.
2026	CCMUA	Complete new flow monitoring in the CCMUA, Camden & Gloucester systems.
	CCMUA	Update the Hydrologic/Hydraulic model as a result of new flow monitoring.
	Camden & Gloucester	Continued implementation of GSI and Street Flood Mitigation Programs.
2027	Camden & Gloucester	Continued implementation of GSI and Street Flood Mitigation Programs.
2028	CCMUA	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.
	CCMUA	Develop Cooper River Water Quality Strategy
	CCMUA	Complete implementing C-32 Controls.
	Camden & Gloucester	Continued implementation of GSI and Flood Mitigation Programs.
2029-2033	CCMUA, Camden & Gloucester	Planning, design, permitting and land acquisition for structural control alternatives to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather.
	Camden & Gloucester	Continued implementation of GSI and Street Flood Mitigation Programs.
2034-2038	Camden & Gloucester	Construct structural control alternatives to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather.
	Camden & Gloucester	Continued implementation of GSI and Street Flood Mitigation Programs.

The September 2020 LTCP and September 2023 revised LTCP did not make a recommendation between storage and treatment. Additional satellite or storage controls will be needed for certain CSO discharges to the Cooper River in Camden and to the Delaware River in Gloucester City. Based on the post cleaning flow monitoring and H&H model update, the permittees will provide an analysis that will include final sizing of and scheduling for the implementation of the facilities will occur as a part of facilities planning. The updated analysis will include detailed design and construction schedules.

Compliance with Wet Weather Percent Capture:

The DEAR states that the Presumption Approach has been selected in Section 3. The minimum 85% wet weather capture requirement is specified in the Federal CSO Control Policy and the NJPDES permit at Part IV.G.4.f.ii. The baseline percent calculation utilized for the LTCP is specified in 2.3 of the revised DEAR and is as follows:

$$\text{Percentage Capture} = 1 - \frac{(\text{Total CSO Volume} + \text{Total Flooding Volume})}{(\text{Total System WW Inflow} - \text{Total WW Flow from Separate Sanitary Communities})}$$

The baseline condition percent capture is listed in Table 1-2 of the DEAR where details for the system are as follows:

Table 1- 2 – System Wide Performance Characteristics Used for Control Alternatives Development

	System Wide Performance Metrics	Baseline Condition	Upon Completion of Current Improvements [1]	Further Increase in Wet Weather Treatment Capacity[1]
		Camden Hydraulic Capacity not Restored	*Camden Hydraulic Capacity Restored*	*Camden Hydraulic Capacity Restored*[2]
WPCF # 1 Capacity		150 MGD	185 MGD	185 MGD full treatment + 35 MGD through CSO Related Bypassing
1	% Capture	68%	76%	79%
2	Overflow Volume (million gallons)	829	627	541
3	Range of Overflow Frequencies (events)	10-69	5-70	9-70[4]
4	Modeled Surface Flooding (million gallons)	90	44	43

Note: 1. Does not include a 10% reduction in directly connected impervious area.

2. Includes C3 regulator opened to utilized increased available wet weather treatment capacity.

3. Ranges reflect variations between individual CSO outfalls.

4. The increase in minimum overflow frequency is due to the increased capture flow at C3 preventing the flow at C5 from being captured. This led to an increase of overflow volume at C5 (1 MG) and 4 more overflows during the typical year. Meanwhile annual overflow at C3 reduced by 100 MG.

For comparison, a summary of percent capture after implementation of the CSO control alternatives is shown below. This information is summarized from Table 7-1 as entitled “Project Cumulative CSO Control Levels as the Program is Implemented” of the revised LTCP:

Program Element		System Wide
Baseline	**Baseline Conditions**	
	Percent Capture	69%
	Overflow Volume (MGY)	822.9
	Modeled Street Flooding (MGY)	79.7
Program Element 1	**System Optimization – Completion of Current Projects**	
	Percent Capture	78%
	Overflow Volume (MGY)	579.9
	Modeled Street Flooding (MGY)	33.0
Program Element 2	**Efficacy Evaluation**	
Program Element 3	**Formalized Green Stormwater Infrastructure Program**	
	Percent Capture	81%
	Overflow Volume (MGY)	487.0
	Modeled Street Flooding (MGY)	24.4
Program Element 4	**Street Flooding Mitigation Program**	
Program Element 5	**Cooper River Regional Water Quality Optimization Strategy**	
Program Element 6	**Additional Structural Controls** (statistics are for satellite storage for Del-GL and Cooper)	
	Percent Capture	86%
	Overflow Volume (MGY)	341.5
	Modeled Street Flooding (MGY)	<24.4

Summary:

As shown above, the selected long term control program consists of six program elements that will have phased and overlapping implementation schedules. These six program elements are summarized from the revised LTCP and are as follows:

1. ***Completion of Projects to Optimize Current Assets*:** Since the submittal of the LTCP in September of 2020, CCMUA has completed the capacity expansion of its WPCF 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 is working towards 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.

2. ***Efficacy Evaluation*:** The evaluation of the efficacy of these recent improvements as described above will occur through comprehensive flow monitoring which will take place upon completion of the comprehensive system wide cleaning. This flow monitoring will inform the refinement and recalibration

of the existing hydrologic / hydraulic model to reflect current conditions. This will establish a new baseline of overflow statistics informed by the wet weather operating history with these capacity improvements in place.

3. ***Formalized Green Stormwater Infrastructure Program*:** Camden's, Gloucester City's and CCMUA's green stormwater infrastructure (GSI) and neighborhood redevelopment efforts will be formalized and expanded with a goal of optimizing the capture of stormwater runoff to the combined sewer system.

4. ***Street Flooding Mitigation Program*:** It is proposed that a Comprehensive Street Flooding Mitigation Program be developed by each city with technical assistance from CCMUA as an early long term CSO control plan implementation action. This will serve as the basis for short and long term operational and capital improvements.

   Contextually, a reduction in street flooding along the Delaware River has been observed as a result of the paralleling efforts of sewer and outfall cleaning and the expansion of treatment capacity at CCMUA's WPCF.

5. ***Cooper River Water Quality Optimization Program*** –CCMUA and the City of Camden are committing to work with the other Cooper River municipalities, stakeholders and NJDEP to develop a Cooper River Water Quality Optimization Strategy.

6. ***Additional Structural Controls*** – Additional CSO controls were evaluated for three of the five sub-systems to achieve the control objective of 85% system-wide wet weather capture. Upon completion of the remedial system-wide sewer cleaning efforts by the City of Camden and Gloucester City, CCMUA will undertake a comprehensive flow monitoring program to provide data for the updating of the LTCP model which will provide updated capture rate data and refine the understanding of additional controls necessary to achieve 85% system-wide wet weather capture.

In the LTCP, CCMUA and the Cities proposed that the scope and sizing of the satellite facilities be re-evaluated through an updated LTCP including construction to occur during subsequent permit cycles. This timing was intended to provide sufficient time for the completion of the system capacity restoration in Camden and Gloucester City, the implementation of likely feasible GSI for DCIA removal prior to conducting a comprehensive flow monitoring and modeling update to document the system condition then and re-evaluate control needs.

The permittee has submitted the required studies that form the basis of the Evaluation of Alternatives where these studies have been previously approved by the Department as noted in the Contents of the Administrative Record. In addition, the permittee has selected the minimum 85% wet weather capture criteria of the Presumption Approach as a means of compliance with the Federal CSO Control Policy and the NJPDES permit at Part IV.G.4.f.ii. As described within the LTCP, this value will be met through the implementation of CSO control alternatives identified above.

<u>Renewal Permit Requirements for Evaluation of Alternatives</u>

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 upon completion of the CSO control alternatives. In order to evaluate the performance of the CSO control measures, the permittees are required to demonstrate a value of 85% wet weather capture through the use of the hydrologic and hydraulic model. Please refer to Part IV.G.9 for compliance with this performance criteria.

This condition is included in Part IV.G.4.

5. Cost/Performance

Background of 2015 Permit Requirement

The 2015 NJPDES CSO permit renewal included a permit condition regarding Cost/Performance as part of the LTCP. The Cost/Performance requirement is intended to demonstrate the relationships among proposed control alternatives that correspond to those required in Section G.4. This shall include an analysis to determine where the increment of pollutant reduction achieved in the receiving water diminishes compared to the increased costs. This analysis, often known as the "knee of the curve" analysis, is used in order to help guide the selection of controls. The permittee can use previous studies to the extent that they are accurate and representative of a properly operated and maintained sewer system and of the required information.

Summary of Compliance with 2015 Permit Requirement

As described in Section 5.4.1, Cost and Performance Evaluation of the LTCP contains a cost and performance evaluation. The analysis evaluated the relationship between the frequencies of overflows from the 30 active outfalls and the volumes of combined sewage discharged from the overflows. The variability in overflow volumes between outfalls and the weak relationship between frequency and volume supports the selection of the 85% system-wide capture performance standard.

Renewal Permit Requirements for Cost/Performance

In accordance with Part IV.D.3.b. of the existing NJPDES permit, the permittee was required to develop an approvable LTCP. Capital costs were evaluated for the purposes of the LTCP. The Department is requiring that the permittee complete all projects set forth in the Implementation Schedule included in Part IV.G.8.

This condition is included in Part IV.G.5.

6. Operational Plan

Background of 2015 Permit Requirements

The 2015 NJPDES CSO permit renewal included a permit condition regarding the Operational Plan as part of the LTCP in Part IV.G.6.

Summary of Compliance with the 2015 Permit Requirements

Section 6.5 of the LTCP as entitled "Institutional Context" specifies that the permittee would prepare updates to their O&M manual to include any new or modified facilities which are a part of the LTCP. These manuals would include a description of the equipment and features of the facility, operating instructions, maintenance guides, and safety considerations. The updates to the O&M Programs were to begin within sixty days of placing the CSO Control Measures into operation and were to be submitted to the Department for review and comment.

Renewal Permit Requirements for the Operational Plan

In accordance with N.J.A.C. 7:14A-6.12 of the NJPDES Rules, the permittee must maintain and operate the treatment works and facilities installed by the permittee to achieve compliance with the terms and conditions of the discharge permit. The rules provide that proper operation and maintenance includes, but is not limited to, effective performance; adequate funding; effective management; adequate staffing and training; regularly scheduled inspections and maintenance; and adequate laboratory/process controls.

As the CSO Control Measures are implemented in accordance with the implementation schedule, updates will need to be incorporated to the Operational Plan which includes the O&M Manual, Emergency Plan and Asset Management Plan. These updates shall address effective performance; adequate funding; effective management; adequate staffing and training; regularly scheduled inspections and maintenance; and adequate laboratory/process controls. In addition, this shall include the operation and maintenance of green infrastructure.

As noted above, the permittee must maintain and operate the treatment works installed by the permittee to achieve compliance with the terms and conditions of the discharge permit pursuant to N.J.A.C. 7:14A-6.12. Part IV.F.1 (Proper Operation and Regular Maintenance Program Requirements) of the existing NJPDES permit, required the permittee to characterize the entire collection system, delineate characterization information in GIS, and create Standard Operating Procedures (SOPs) for operations, inspections, & scheduled preventative maintenance, including an Emergency Plan and incorporate an Asset Management Plan. In addition, Asset Management is the process to ensure that there is sufficient investment in the CSO control strategy as well as the planned maintenance, needed repair, replacement, and upgrade of the physical components of the infrastructure for the treatment works.

This condition has been updated as follows:

a. Throughout implementation of the LTCP as appropriate, the permittee shall modify 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 Gray and Green Infrastructure; staffing and budgeting; and I/I. Climate change resilience requirements shall also be considered in the update of these plans.

This condition is included in Part IV.G.6.

7. Maximizing Treatment at the Existing STP

Background of 2015 Permit Requirements

The 2015 NJPDES CSO permit renewal included a permit condition regarding Maximizing Treatment at the Existing STP as part of the LTCP. Specifically, this permit condition required a demonstration of the maximization of the removal of pollutants during and after each precipitation event at the STP to ensure that such flows receive treatment to the greatest extent practicable, utilizing existing tankage for storage, while still meeting all permit limits.

Summary of Compliance with 2015 Permit Requirements

The LTCP includes CSO control measures to demonstrate the maximization of the removal of pollutants during and after each precipitation event at the STP. These measures are designed to ensure that such flows receive treatment to the greatest extent practicable utilizing existing tankage for storage, while still meeting all permit limits.

Renewal Permit Requirements for Maximizing Treatment at the Existing STP

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. However, this permit condition has been continued to ensure that construction of the CSO controls continues and current practices are maintained to ensure compliance with the Presumption Approach as set forth in the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C. Part IV.G.7 is stated as follows:

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.

This condition is included in Part IV.G.7.

8. Implementation Schedule

Background of 2015 Permit Requirements

The 2015 NJPDES CSO permit renewal included a permit condition regarding the Implementation Schedule as part of the LTCP which requires the permittee to submit a construction and financing schedule for the implementation of Department approved LTCP CSO controls. This schedule may be phased on the relative importance of the adverse impacts upon water quality standards and designated uses, the permittee's financial capability, and other water quality related infrastructure improvements, including those related to stormwater improvements that would be connected to CSO control measures. The permittee is required to begin implementation of the LTCP in accordance with the set schedule. The implementation schedule is required to address yearly milestones for:

- Adequately addressing areas of sewage overflows, including to basements, streets and other public and private areas;
- CSO overflows that discharge to sensitive areas as the highest priority;
- Use impairment of the receiving water;
- The permittee's financial capability (factors shall include: 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)
- Grant and loan availability
- Previous and current residential, commercial and industrial sewer user fees and rate structures.
- Other viable funding mechanisms and sources of financing.
- Resources necessary to design, construct and/or implement other water related infrastructure improvements as part of an Asset Management Plan.

Summary of Compliance with the 2015 Permit Requirement

The 2015 NJPDES permit required submission of a LTCP with an Implementation Schedule.

Renewal Permit Requirements for Implementation Schedule

Since submission of the LTCP, the permittee has commenced and completed certain CSO control projects. The Department requested information in letters dated June 13, 2023 and June 28, 2023. As a result of the letters, the permittee provided an updated implementation schedule in a submission dated July 12, 2023. In addition, the Department met with the permittee on August 2, 2023. The Department requested further information on August 9, 2023 and received a response on September 8, 2023. The permittee submitted a revised LTCP dated September 2023. The implementation schedule as included in this permit as a result of this updated information is as follows:

Due Date	Permittee Lead	Activities
Completed in 2020	CCMUA	Expansion of CCMUA's WPCF # 1 to 185 MGD.
	Camden	Arch Street Pump Station capacity expansion.
	Camden	Camden SMART GSI projects totaling 2.75 acres.
Completed in 2022	Camden	Regulator mechanism rehabilitation of 28 regulators in Camden.
Completed in 2023	Camden	Camden CSO outfall cleaning.
	Camden	Various GSI projects totaling 6 acres.
	Camden	Part of initial cleaning of Camden collection system.
	Gloucester	Initial inspection & cleaning of 100% of Gloucester collection system.
	Gloucester	Gloucester regulator cleaning.
2024	Camden	Complete initial inspection & cleaning of 100% of Camden collection system by October 31, 2024.
	CCMUA	Conduct Alternatives Analysis for C-32 CSO controls.
2025	CCMUA	Begin new flow monitoring to assess flow levels in the in the CCMUA, Camden & Gloucester systems.
	Gloucester	Complete Gloucester CSO outfall cleaning.
	Camden & Gloucester	Formalize Green Stormwater Infrastructure (GSI) Programs.
	Camden & Gloucester	Formalize Street Flooding Mitigation Programs.
	CCMUA	Design and permitting for C-32 controls.
2026	CCMUA	Design and permitting for C-32 controls.
	CCMUA	Separation of Pennsauken combined sewer area.
	CCMUA	Complete new flow monitoring in the CCMUA, Camden & Gloucester systems.
	CCMUA	Update the Hydrologic/Hydraulic model as a result of new flow monitoring.
	Camden & Gloucester	Continued implementation of GSI and Street Flood Mitigation Programs.
2027	CCMUA	Evaluate structural control alternatives to capture of a minimum of 85% of the annual average combined sewage collected in the system during wet weather.
	CCMUA	Implementation of C-32 controls.
	Camden & Gloucester	Continued implementation of GSI and Street Flood Mitigation Programs.
2028	CCMUA	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.
	CCMUA	Implementation of C-32 controls.
	CCMUA	Develop Cooper River Water Quality Strategy
	Camden & Gloucester	Continued implementation of GSI and Flood Mitigation Programs.
2029-2033	CCMUA, Camden & Gloucester	Planning, design, permitting and land acquisition for structural control alternatives to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather.
	Camden & Gloucester	Continued implementation of GSI and Street Flood Mitigation Programs.
2034-2038	Camden & Gloucester	Construct structural control alternatives to capture a minimum of 85% of the annual average combined sewage collected in the system during wet weather.
	CCMUA	Complete implementation of C-32 controls.
	Camden & Gloucester	Continued implementation of GSI and Street Flood Mitigation Programs.

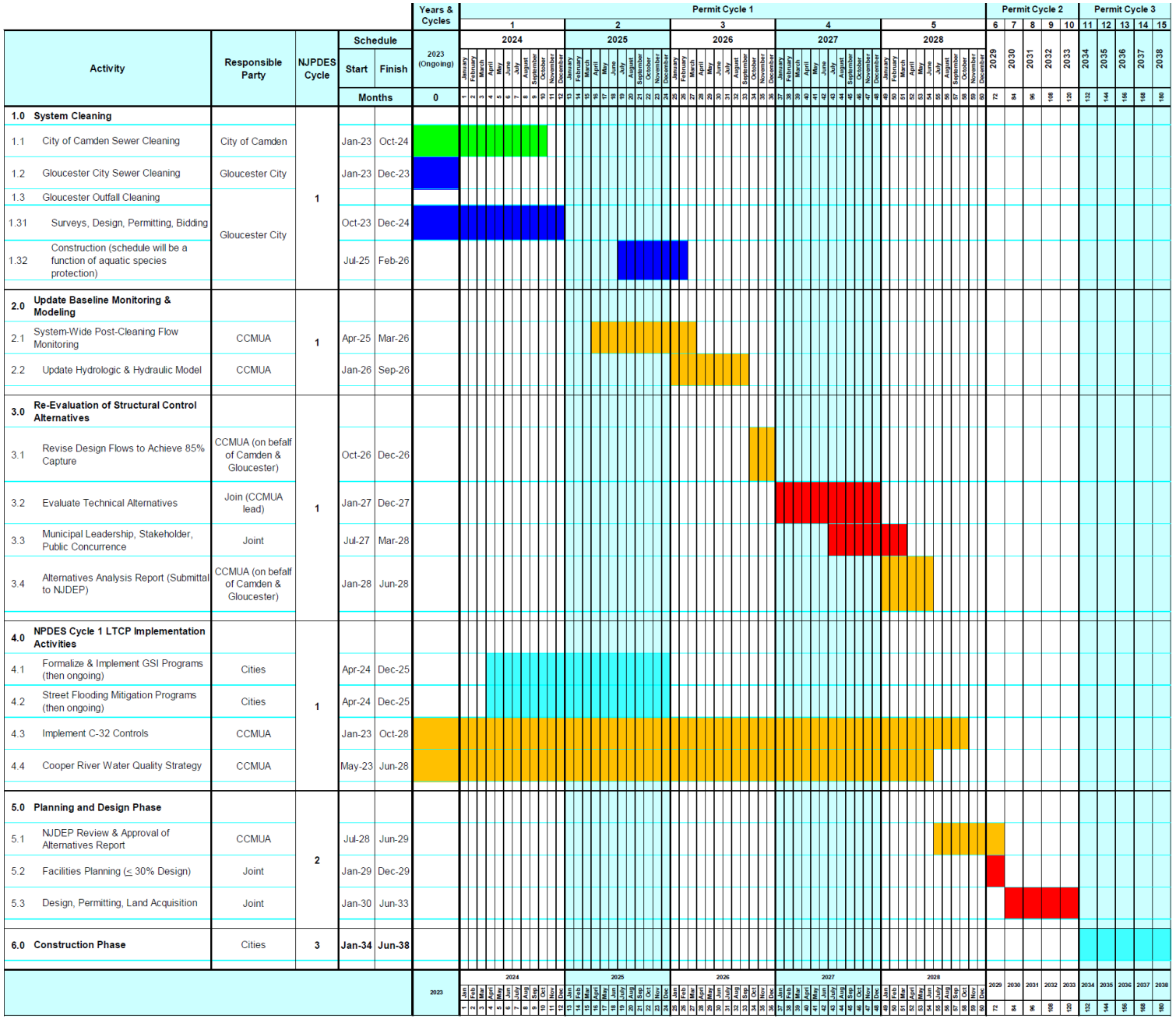


Figure 8-1 – Proposed LTCP Implementation Schedule

This renewal permit requires that the permittee complete the above referenced projects based on the Implementation Schedule. Consistent with the Federal CSO Control Policy, the permittee is hereby required to attain a minimum wet weather percent capture value of 85%. The Department reserves the right to require the permittee to re-evaluate the Implementation Schedule at the end of this 5-year renewal permit action to determine if additional measures are needed in order to comply with 85% wet weather capture.

This condition is included in Part IV.G.8.

9. Compliance Monitoring Program

Background of 2015 Permit Requirements

The 2015 NJPDES CSO permit renewal included a permit condition regarding the Compliance Monitoring Program (CMP) which is a component of Part IV.G.1 as well as a separate component of the LTCP. The CMP consists primarily of ambient baseline monitoring to provide a present day evaluation or snapshot of ambient water quality conditions. The 2015 snapshot is to be used as a baseline to compare future evaluations in order to assure the effectiveness of the CSO control measures. The CMP was required to include the following specific components: 1) ambient in-stream monitoring data, 2) discharge frequency, duration and quality data and 3) rainfall data.

Summary of Compliance with the 2015 Permit Requirement

In accordance with Part IV.D.3.d and Part IV.G.1.d.3 and G.9 of the existing NJPDES permit, the permittee was required to submit a work plan within 6 months of the effective date of the permit to be followed by a baseline Compliance Monitoring Program (CMP) report within 36 months from the effective date of the permit. The work plan was dated December 2015, revised March 2016, and was approved by the Department on April 7, 2016. Regarding the report, CCMUA, the City of Camden and Gloucester City submitted the "Baseline Compliance Monitoring Report" dated June 2018.

For the purposes of the Baseline Compliance Monitoring Program Report, CCMUA searched and extracted all relevant historical water quality data from the USEPA's STORET database. Extensive analysis on these data was carried out to determine the sampling locations; precipitation, tidal, and CSO conditions at the time of sampling; the total numbers of samples at each location under dry and wet weather conditions; and the measured concentration of each regulated pathogen species. Nine sampling stations were identified with 3 sites located on each receiving water. The Delaware River Basin Commission (DRBC) has sampled the main stem of the Delaware River between Trenton and the Delaware Bay since 1967. Samples are collected monthly from April through October. The pathogen species tested include Fecal Coliform, Enterococcus, and E. Coli. Existing pathogen data is collected by the Delaware River Basin Commission (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 and the Department finds that these data collection efforts are sufficient to provide an assessment for the purposes of data characterization for "baseline and existing conditions."

The Department issued findings in the technical comment letter dated September 12, 2018 which subsequently resulted in a revision to the report on January 2019.

The Department approved the CMP report on February 7, 2019. Specifically, in that letter, the Department determined that the data collection effort provided sufficient information for the purposes of data characterization for baseline and existing conditions. However, as referenced in Part IV.G.9 of the 2015 NJPDES CSO permit, "this CMP shall be conducted before, during and after implementation of the LTCP." Therefore, the acceptability of the CMP on a long-term basis beyond pre-LTCP conditions is conditional on the continuation of the DRBC Boat Run Program to supplement the Baseline Compliance Monitoring Program data for future conditions to ensure consistency for sampling stations, parameters etc. In fact, any subsequent approval of the

Baseline Compliance Monitoring Program for future phases of the LTCP may also require specific sampling for Cooper River and Newton Creek.

Please refer to Part IV.G.1 regarding the Department's comments on hydraulic and hydrological modeling which is also a component of Part IV.G.9.

Renewal Permit Requirements for the Compliance Monitoring Program

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 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:

- 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 and N.J.A.C.7:14A-11, Appendix C. The PCCMP shall provide data to evaluate the effectiveness of the CSO control measures constructed during and after the implementation of the LTCP.
- A monitoring schedule, regulator monitoring locations, receiving water sampling locations, and rain gauge locations.
- 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.
- A Public Notification System to notify the public of the occurrence of combined sewer overflows for each receiving water body.

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 hydrologic and hydraulic model, a continuous simulation for the system-wide annual average shall be run by the permittee 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. Note that any effort to recalibrate the hydrologic and hydraulic model shall be performed after consultation with the Department.

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:

1) 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;
2) At the end of the effective NJPDES permit, update the hydrologic and hydraulic model to include all completed CSO control measures and any other modifications to the CSS since the hydrologic and hydraulic model was calibrated for the LTCP;
3) Calibrate and/or validate the updated hydrologic and hydraulic model, if needed, using the flow and rainfall data collected during the effective NJPDES permit. Any recalibration of the hydrologic and hydraulic model shall be approved by the Department; and

4) Perform continuous simulation using the updated hydrologic and hydraulic model for 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.

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.

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:

- A statement setting forth the deadlines and other terms that the permittees were required to meet in the effective NJPDES permit;
- A summary of principal contacts with the Department during the effective NJPDES permit relating to CSOs or implementation of the LTCP;
- NJPDES permit violations, including but not limited to dry weather overflows;
- A summary of flow and hydraulic monitoring data collected by the permittees during the effective NJPDES permit;
- 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;
- 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
- A summary of any proposed adjustments to the components of the LTCP.

A Final PCCMP Report shall be submitted to the Department within 30 months after the last LTCP project has been implemented. The single Interim or 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:

- A complete post-construction compliance monitoring period data summary and analysis;
- A reporting of all of the CSO control measures that have been constructed, implemented, and that are in operation;
- An evaluation of the CSO control measures' performance, and whether the controls meet the final required percent capture;
- 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
- An assessment of whether the control measures are complying with water quality standards.

These conditions are included in Part IV.G.9.

10. Permittee's LTCP Responsibilities

Background of 2015 Permit Requirement

The NJPDES Permits for CCMUA, the City of Camden and Gloucester City encouraged collaboration among Permittees within a hydraulically connected sewer system for the development of a LTCP. Part IV.G.10 of the permit stated the following:

a. The permittee is responsible for submitting an LTCP that addresses all nine elements in Part IV.G.

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 LTCPs are consistent. The LTCP documents must be based on the same data, characterization, models, engineering and cost studies, and other information, where appropriate. Each permittee is required to prepare the necessary information for the portion of the hydraulically connected system that the permittee owns/operates and provide this information to the other permittees within the hydraulically connected system in a timely manner for LTCP submission.

Summary of Compliance with 2015 Permit Requirement

As noted in the LTCP in Section 1, due to the unique and challenging circumstances facing Camden and Gloucester City, it was apparent to CCMUA and the Cities from the outset that the communities and the environment will be best served by leveraging a coordinated and collaborative approach combining regulatory compliance, sustainable redevelopment and environmental justice.

The combined sewer system that LTCP addresses consists of the respective collection systems owned and operated by the Cities of Camden and Gloucester and the portion of the CCMUA's regional conveyance interceptor system that is located within the Cities of Camden and Gloucester. There are 34 sewersheds within the Camden and Gloucester combined sewer collection systems. These include twenty-seven within the City of Camden and seven in Gloucester City. Each of these sewersheds drain to a regulator structure controlling the amount of wet weather flow that enters into the CCMUA interceptors from the Camden and Gloucester trunk sewers.

Renewal Permit Requirements for Permittee's LTCP Responsibilities

As described in previous sections, the permittees have worked collaboratively throughout the LTCP process resulting in a single, coordinated LTCP. As a result, the objective of "Permittee's LTCP Responsibilities" has been satisfied and this requirement has been fulfilled with respect to preparation of the LTCP. However, the overall objective of this permit condition has been continued to ensure that CSO control measures are continued in a collaborative manner. This permit condition has been updated as follows:

a. 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 LTCP. 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 permittees to ensure overall compliance. In addition, each permittee is required to institute necessary measures for the LTCP for 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 condition is included in Part IV.G.10.

D. Renewal Permit Requirements

1. Precipitation Trends

Since the issuance of the 2015 NJPDES CSO permit, the State has further studied the presently existing and likely future impacts of climate change specific to New Jersey and the Department issued the New Jersey Climate Science Report in 2020, an addendum in 2022, and will routinely update these materials as the science evolves, which are available at https://nj.gov/dep/climatechange/data.html. The State also assembled the Interagency Council on Climate Resilience to identify the measures necessary to promote the long-term mitigation, adaptation and resilience of New Jersey's economy, communities, infrastructure and natural resources, which was issued to build resilience to the impacts of climate change across public and private sectors, and issued the

statewide Climate Change Resilience Strategy in 2021, which will be routinely updated as statewide resilience planning efforts advance. These materials are available at https://nj.gov/dep/climatechange/resilience.html.

As climate change will impact all of New Jersey's natural resources and their supporting infrastructure, management plans must be adaptive as conditions continue to evolve and new data becomes available. Adaptive management takes an iterative approach designed to expect and respond to uncertainty and variability of resources over time. By incorporating adaptive management and future conditions into planning and asset management, water resource managers, including those permitted by the Department, can best ensure that their systems and service to the public are best prepared for a changing climate.

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

- 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.
- 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.
- 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 review this information and make a determination that Adaptive Management measures may need to be pursued in a subsequent permit action.

2. Adaptive Management Plan

An Adaptive Management Plan shall be submitted with the NJPDES permit renewal application 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; and/or
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.

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.

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.

Any additional CSO control measures that are determined to be necessary as a result of Adaptive Management will be required through a NJPDES permit action and will require a revision to the LTCP.

These conditions are included in Part IV.H.

E. Basis and Derivation for Monitoring Requirements:

The Permit Summary Table within this fact sheet contains a summary of data for all the CSO outfalls. The proposed requirements and other pertinent information regarding the draft permit are described below, where monitoring requirements for Duration of Discharge is included for all outfalls, and Precipitation and Solid/Floatables is only for DSN 005A:

1. Duration of Discharge: Duration of Discharge represents the number of days (in whole numbers) that at least one discharge occurred from that outfall (i.e., not the number of discharge events). Monitoring and reporting for this parameter has been retained from the existing permit pursuant to N.J.A.C. 7:14A-13.19.

   The monitoring frequency is **once per month** with an **estimated** sample type.

2. Precipitation: Precipitation represents the total amount of precipitation (i.e. rainfall and snowmelt) measured during the monitoring period from a single rain gauge representative of the area. Monitoring and reporting for this parameter has been retained from the existing permit pursuant to N.J.A.C. 7:14A-13.19.

   The monitoring frequency is **once per month** with a **measured** sample type.

3. Solids/Floatables: Solids/Floatables (S/F) represents the total volume (reported in cubic yards) of all S/F removed and disposed of from all outfalls during the month. Reporting a S/F value is only necessary when the S/F material is measured for disposal (e.g. filled dumpsters). Monitoring and reporting for this parameter has been retained from the existing permit pursuant to N.J.A.C. 7:14A-13.19.

   The monitoring frequency is **once per month** with a **measured** sample type.

F. Reporting Requirements:

All data requested to be submitted by this permit shall be reported on the MRFs as appropriate and submitted to the Department as required by N.J.A.C. 7:14A-6.8(a).

Electronic Reporting Requirements

On October 22, 2015, the USEPA promulgated the final NPDES Electronic Reporting Rule (see Federal Register 80:204 p. 64064). This rule requires entities regulated under the CWA NPDES program to report certain information electronically instead of filing paper reports.

In accordance with this rule, all required monitoring results reported on MRFs shall be electronically submitted to the Department via the Department's Electronic MRF Submission Service. In addition, starting December 21, 2020, the following document(s) or report(s) shall be electronically submitted to the Department via the Department's designated Electronic Submission Service:

- Sewer overflow event non-compliance reports required by N.J.A.C. 7:14A-6.10

Consistent with this rule, the existing reporting requirements contained in the existing permit at Part IV have been removed and are now contained at Part II of the permit. Please refer to Part II of this permit action for further details regarding the new reporting requirements as a result of the Electronic Reporting Rule.

G. General Conditions:

In accordance with N.J.A.C. 7:14A-2.3 and 6.1(b), specific rules from the New Jersey Administrative Code have been incorporated either expressly or by reference in Part I and Part II.

H. Operator Classification Number:

To obtain or determine the appropriate licensed operator classification for the treatment works specified, the permittee shall contact the Bureau of Environmental, Engineering and Permitting at (609) 984-4429.

I. Progress Reports:

This renewal permit includes a compliance schedule for the submission of progress reports beginning on the effective date of the permit (EDP). The permittee must submit a progress report to the Department on February 1st and August 1st of each year to document the permittee's progress towards compliance with the Federal CSO Control Policy and N.J.A.C. 7:14A-11 – Appendix C. The progress reports must include but are not limited to the following information:

- A summary of all CSO measures implemented and the effectiveness of those measures;
- Verification that the Operation & Maintenance Manual, Asset Management Plan and Emergency Plan have been updated annually including detail on the System Cleaning Program;
- A discussion of the continued implementation of the NMCs including maintaining the telephone hotline/website pursuant to Section F.8, and
- A list of any complaints received by the permittee regarding CSO related flooding including location and duration.

9 Permit Summary Tables

DSN 005A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	6.43	MR	MR	1/Month	Estimated
Solids/Floatables **(2)**	Cu. Yd.	Monthly Total	15.10	MR	MR	1/Month	Measured
Precipitation	Inches	Monthly Total	3.84	MR	MR	1/Month	Measured

DSN 007A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	6.34	MR	MR	1/Month	Estimated

DSN 008A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	6.31	MR	MR	1/Month	Estimated

DSN 009A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	8.09	MR	MR	1/Month	Estimated

DSN 010A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	6.31	MR	MR	1/Month	Estimated

DSN 012A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	8.09	MR	MR	1/Month	Estimated

DSN 013A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	6.31	MR	MR	1/Month	Estimated

DSN 014A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	8.09	MR	MR	1/Month	Estimated

DSN 015A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	5.18	MR	MR	1/Month	Estimated

DSN 016A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	2.33	MR	MR	1/Month	Estimated

DSN 018A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	5.18	MR	MR	1/Month	Estimated

DSN 020A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	8.09	MR	MR	1/Month	Estimated

DSN 022A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	7.16	MR	MR	1/Month	Estimated

DSN 023A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	8.09	MR	MR	1/Month	Estimated

DSN 024A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	6.31	MR	MR	1/Month	Estimated

DSN 025A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	7.15	MR	MR	1/Month	Estimated

DSN 026A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	5.18	MR	MR	1/Month	Estimated

DSN 028A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	8.09	MR	MR	1/Month	Estimated

DSN 029A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	7.16	MR	MR	1/Month	Estimated

DSN 030A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	8.09	MR	MR	1/Month	Estimated

DSN 033A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	8.11	MR	MR	1/Month	Estimated

DSN 034A							
PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA **(1)**	EXISTING LIMITS	FINAL LIMITS	MONITORING	
						Freq.	Sample Type
Duration of Discharge	Days	Monthly Total	10.15	MR	MR	1/Month	Estimated

Footnotes and Abbreviations:

MR Monitor and report only

(1) Wastewater data originates from the information submitted on the monitoring report forms July 2015 to September 2023.

(2) Solids/floatables are reported system wide on the first outfall only

10 Description of Procedures for Reaching a Final Decision on the Draft Action:

Please refer to the procedures described in the public notice that is part of the draft permit. The public notice for this permit action is published in the *Courier Post* and in the *DEP Bulletin* available at https://dep.nj.gov/bulletin/.

11 Contact Information

If you have any questions regarding this permit action, please contact Molly Jacoby Bureau of Surface Water & Pretreatment Permitting at (609) 292-4860 or via email at Molly.Jacoby@dep.nj.gov.

12 Contents of the Administrative Record

The following items are used to establish the basis of the Draft Permit:

Rules and Regulations:

1. 33 U.S.C. 1251 et seq., Federal Water Pollution Control Act.
2. 40 CFR Part 131, Federal Water Quality Standards. [A]
3. 40 CFR Part 122, National Pollutant Discharge Elimination System.
4. Federal CSO Control Policy (Published April 19, 1994, at 59 Federal Register 18688)
5. N.J.S.A. 58:10A-1 et seq., New Jersey Water Pollution Control Act. [A] [B]
6. N.J.A.C. 7:14A-1 et seq., New Jersey Pollutant Discharge Elimination System Regulations. [A] [B]
7. N.J.A.C. 7:9B-1 et seq., New Jersey Surface Water Quality Standards. [A] [B]
8. Interstate Environmental Commission Regulations, N.J.S.A. 32:18-1 et seq.
9. N.J.S.A. 58:25-23 et/ seq., Sewage Infrastructure Improvement Act

To help permittees and NPDES permitting and WQS authorities implement the provisions of the CSO Control Policy, EPA has developed the following guidance documents:

1. Combined Sewer Overflows – Guidance for Long-Term Control Plan (EPA 832-B-95-002)
2. Combined Sewer Overflows – Guidance for Nine Minimum Controls (EPA 832-B-95-003)
3. Combined Sewer Overflows – Guidance for Screening and Ranking Combined Sewer System Discharges (EPA 832-B-95-004)
4. Combined Sewer Overflows – Guidance for Monitoring and Modeling (EPA 832-B-95-05)
5. Combined Sewer Overflows – Guidance for Financial Capability Assessment (EPA 832-B-95-006)
6. Combined Sewer Overflows – Guidance for Funding Options (EPA 832-B-95-007)
7. Combined Sewer Overflows – Guidance for Permit Writers (EPA 832-B-95-008)
8. Combined Sewer Overflows – Questions and Answers on Water Quality Standards and the CSO Program (EPA 832-B-95-009)
9. CSO Post Construction Compliance Monitoring Guidance (EPA 833-K-11-001)

Guidance Documents / Reports:

1. "Field Sampling Procedures Manual", published by the Department. [A]
2. "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. [A]
3. "USEPA TSD for Water Quality-based Toxics Control", EPA/505/2-90-001, March 1991. [B]
4. New Jersey's 2018/2020 Integrated Water Quality Monitoring and Assessment Report *(includes 305 (b) Report 303(d) List).* [A]
5. Compliance Evaluation reports July 2016, December 2016, May 2018, September 2019, June 2021, and April 2023.
6. MRFs dated July 2015 to September 2023.

Permits / Applications:

1. NJPDES/DSW Permit Application dated April 24, 2020.
2. Existing NJPDES/DSW Permit NJ0108812, issued March 12, 2015 and effective July 1, 2015.
3. Minor Modification to NJPDES/DSW Permit NJ0108812, issued October 9, 2015 and effective on July 1, 2015.
4. Major Modification to NJPDES/DSW Permit NJ0108812, issued May 1, 2020 and effective on June 1, 2020 to incorporate changes to Part IV.F.1.h., F.3., and F.7.c.
5. Stay to NJPDES/DSW Permit NJ0108812, issued February 2, 2018 which serves to stay Part IV.F.1.h of the existing permit.
6. Stay to NJPDES/DSW Permit NJ0108812, issued April 15, 2020 which serves to extend the LTCP submission date.

LTCP Report Submissions:

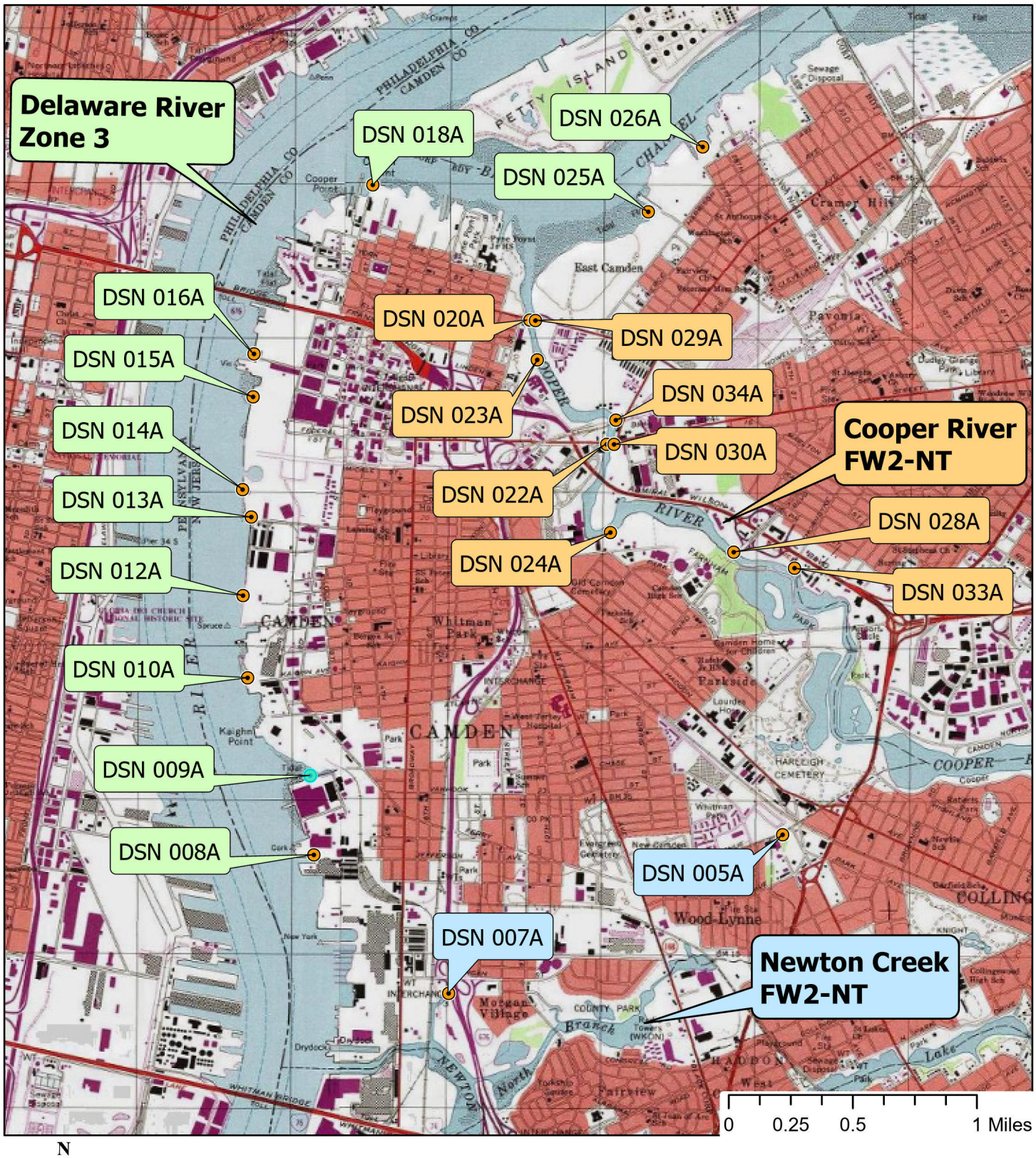
1. "System Characterization Report Work Plan" dated October 2015, revised February 2016 and July 2016.
2. "Sewer System Characterization Report" dated June 2018, revised September 17, 2018 and January 14, 2019.
3. "Compliance Monitoring Program Work Plan" dated December 2015, revised March 2016.
4. "Baseline Compliance Monitoring Report" dated June 2018, revised January 2019.
5. "Public Participation Report" dated June 2018.
6. "Baseline Consideration of Sensitive Areas" dated June 2018.
7. "Development and Evaluation of Alternatives Report" dated June 2019, revised December 2019.
8. "Selection and Implementation of Alternatives Report" dated September 2020 (with additional information dated June 30, 2021) and revised September 2023.

Correspondences:

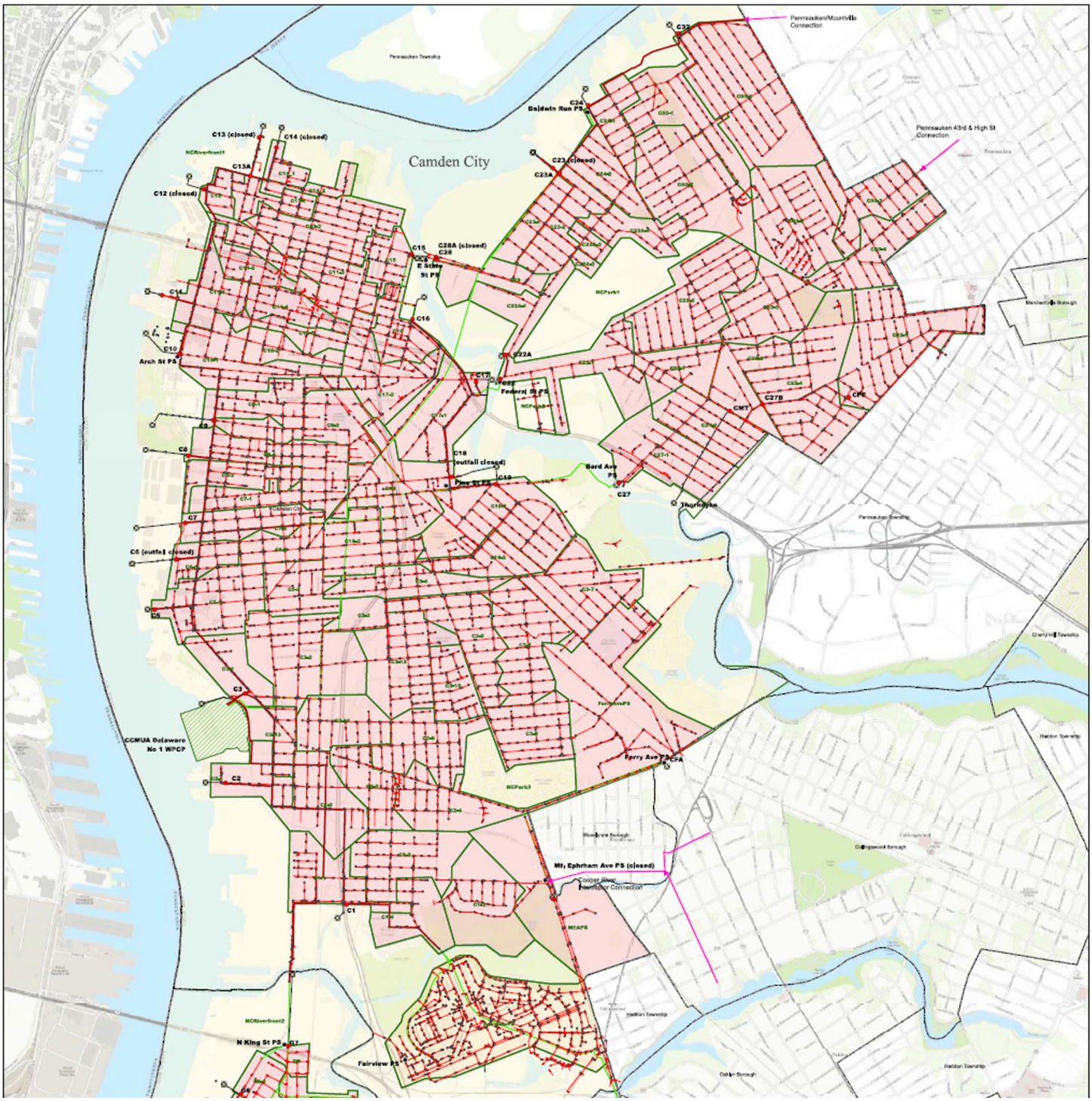
1. Technical Comments on the "System Characterization Report Work Plan" dated November 25, 2015 and May 5, 2016 with the approval letter dated August 3, 2016.
2. Technical Comments on the "System Characterization Report" dated November 2, 2018 with the approval letter dated January 24, 2019.
3. Technical Comments on the "Compliance Monitoring Program Work Plan" dated January 15, 2016, with the approval letter dated April 7, 2016.
4. Technical Comments on the "Baseline Compliance Monitoring Report" dated September 12, 2018 with the approval letter dated February 7, 2019.
5. Technical Comments on the "Public Participation Report" dated October 16, 2018 and August 9, 2019.
6. Technical Comments on the "Baseline Consideration of Sensitive Areas" dated September 20, 2018 with the approval letter dated December 17, 2018.
7. Technical Comments on the "Development and Evaluation of Alternatives Report" dated September 6, 2019 and November 14, 2019 with the approval letter dated January 30, 2020.
8. Technical Comments on the "Selection and Implementation of Alternatives Report" dated May 7, 2021.
9. Technical submissions from CCMUA dated March 11, 2021 and March 16, 2021 regarding the Camden-Pennsauken disconnect project.
10. NJDEP Response dated March 24 2021 identifying that the Camden Pennsauken disconnect project is identified in the LTCP and requesting prioritization of this project to reduce CSO flows from outfall C-32.
11. NJDEP Request for Information dated June 13, 2023 and June 28, 2023 regarding the implementation schedule.
12. Response to Request for Information dated July 12, 2023.
13. NJDEP Request for Information dated August 9, 2023 regarding the status of collection system maintenance and wet weather expansion.
14. Response to Request for Information dated September 8, 2023.

Footnotes:

[A] Denotes items that may be found on the Department's website located at "http://www.state.nj.us/dep/".
[B] Denotes items that may be found on the USEPA website at "http://www.epa.gov/".



USGS Topographical Map
City of Camden, NJ0108812
Combined Sewer Overflow Outfalls
Camden City, Camden County
WMA: Lower Delaware River



N

0 500 1,000 2,000 3,000 4,000 Feet

SewerType
- Combined Sewer Area
- Sanitary Sewer Area
- Non-contributing Area

Structures[1]
- Discharge Point
- Pump Station
- Regulator

Manhole[2]

Pressurized Main[2]

Gravity Main[2]
- Collector
- Interceptor
- Outfall

- Sewershed Boundary
- Municipal Boundary
- County Boundary
- CCMUA Delaware No 1 WPCP
- Suburban Connection

CCMUA CSO LTCP
Asset Map and Sewersheds

July 2016

Data Source:
1, CHMHILL SPA Planning Study No. CSO-01-018
2, United Water

CDM Smith

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: NJ0108812

DRAFT: Surface Water Renewal Permit Action

Permittee:
Camden City
520 Market Street – Suite 325
Camden, NJ 08101

Co-Permittee:

Property Owner:
Camden City
520 Market Street – Suite 325
Camden, NJ 08101

Location Of Activity:
Camden City
Combined Sewer Collection System
Camden, NJ 08101
Camden County

Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
CSM - Combined Sewer Management - Renewal	Pending	Pending	Pending

DEP AUTHORIZATION
Susan Rosenwinkel
Assistant Director
Water Pollution Management Element

(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 permit renewal application: 180 days before the.

3. Notification of Non-Compliance

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

b. The permittee shall submit a written report as required by N.J.A.C. 7:14A-6.10 within five days.

4. Notification of Changes

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

b. Prior to any change in ownership, the current permittee shall comply with the requirements of N.J.A.C. 7:14A-16.2, pertaining to the notification of change in ownership.

5. Access to Information

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

6. 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.

7. 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 an LTCP fail to meet WQS or protect designated uses.

PART III
LIMITS AND MONITORING REQUIREMENTS

MONITORED LOCATION:	RECEIVING STREAM:	STREAM CLASSIFICATION:	DISCHARGE CATEGORY(IES):
005A CSO	Newton Creek	FW2-NT(C2) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 005A located at Ferry Ave. PS into the Newton Creek at:
Latitude: 39° 55' 15" N
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. The total quantity of Solids/Floatables removed from all outfalls shall be reported here when the solid waste is measured for disposal.

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

PHASE: Final **PHASE Start Date:** **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):
007A CSO	Newton Creek	FW2-NT(C2) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 007A located at Morgan Blvd., & I- 676 into the Newton Creek at:
Latitude: 39° 54' 44" N
Longitude: 75° 06' 59" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
008A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 008A located at 2nd St. & Jefferson into the Delaware River at:
Latitude: 39° 55' 14" N
Longitude: 75° 07' 30" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
009A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 009A located at Jackson Street in the Delaware River at:
Latitude: 39° 55' 28" N
Longitude: 75° 07' 38" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
010A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 010A located at Kaighn Ave. into the Delaware River at:
Latitude: 39° 55' 45" N
Longitude: 75° 07' 48" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
012A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 012A located at Division & Front into the Delaware River at:
Latitude: 39° 56' 03" N
Longitude: 75° 07' 52" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
013A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 013A located at Clinton & Front Streets into the Delaware River at:
Latitude: 39° 56' 13" N
Longitude: 75° 07' 51" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
014A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 014A located at 2nd & Benson Streets into the Delaware River at:
Latitude: 39° 56' 30" N
Longitude: 75° 07' 49" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
015A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 015A located at Arch St. & Delaware Ave. into the Delaware River at:
Latitude: 39° 56' 51" N
Longitude: 75° 07' 53" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
016A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 016A located at Cooper St. & Delaware Ave. into the Delaware River at:
Latitude: 39° 56' 57" N
Longitude: 75° 07' 59" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
018A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 018A located at Front St. & Erie into the Delaware River at:
Latitude: 39° 57' 05" N
Longitude: 75° 07' 24" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
020A CSO	Cooper River	FW2-NT(C1) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 020A located at 10th & State St. into the Cooper River at:
Latitude: 39° 57' 03" N
Longitude: 75° 06' 40" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
022A CSO	Cooper River	FW2-NT(C1) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 022A located at Federal St (East) into the Cooper River at:
Latitude: 39° 56' 35" N
Longitude: 75° 06' 18" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
023A CSO	Cooper River	FW2-NT(C1) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 023A located at 11th & Linden Streets into the Cooper River at:
Latitude: 39° 56' 18" N
Longitude: 75° 06' 22" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
024A CSO	Cooper River	FW2-NT(C2) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 024A located at Pine and Magnolia Streets into the Cooper River at:
Latitude: 39° 56' 19" N
Longitude: 75° 06' 18" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
025A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 025A located at 24th St. & Harrison Ave. into the Delaware River at:
Latitude: 39° 57' 31" N
Longitude: 75° 06' 14" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
026A CSO	Delaware River	Mainstem Delaware-Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 026A located at 27th St. & Buren Ave. into the Delaware River at:
Latitude: 39° 57' 41" N
Longitude: 75° 05' 52" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
028A CSO	Cooper River	FW2-NT(C2) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 028A located at Baird Blvd. into the Cooper River at:
Latitude: 39° 56' 16" N
Longitude: 75° 05' 42" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
029A CSO	Cooper River	FW2-NT(C1) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 029A located at East State St into the Cooper River at:
Latitude: 39° 57' 07" N
Longitude: 75° 06' 36" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
030A CSO	Cooper River	FW2-NT(C1) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 030A located at Federal St (West) into the Cooper River at:
Latitude: 39° 56' 38" N
Longitude: 75° 06' 15" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
033A CSO	Cooper River	FW2-NT(C2) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 033A located at Thorndyke Ave. into the Cooper River at:
Latitude: 39° 56' 13" N
Longitude: 75° 05' 27" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
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):
034A CSO	Cooper River	FW2-NT(C1) - tidal trib to Zone 3	CSM - Combined Sewer Management (IP)

Location Description

The permittee is authorized to discharge combined sewage from Outfall 034A located at River Rd. into the Cooper River at:
Latitude: 39° 56' 44" N
Longitude: 75° 06' 18" 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:

Duration of Discharge shall be reported as whole day for any day when a discharge occurs.

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

PHASE: Final **PHASE Start Date:** **PHASE End Date:**

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

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**

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 also notify the CCMUA of all CSO construction related activities in their collection system on a semi-annual basis. Notification through the TWA process is sufficient for this purpose.

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.

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 the City of Camden the total system is 173 miles long.

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 the City of Camden:
- 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; 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. This information shall be used to prioritize O&M activities in portions of the CSS affected by SIU discharges.

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 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 A, 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 A.

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 NJ0108812.
- Discharge Serial No. (eg. DSN 005A).
- 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, the City of Camden 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 24, 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 public meetings (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 meetings 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 interested public and affected community.

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 Indentification 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.

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.

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): Complete initial inspection & cleaning of 100% of Camden collection system by October 31, 2024.

ii. Year Two (EDP + 1 year to EDP + 2 years): Formalize Green Stormwater Infrastructure (GSI) Programs; Formalize Street Flooding Mitigation Programs; Begin new flow monitoring to assess flow levels in the in the CCMUA, Camden & Gloucester systems.

iii. Year Three (EDP + 2 years to EDP + 3 years): Complete new flow monitoring in the CCMUA, Camden & Gloucester systems; Update the Hydrologic/Hydraulic model as a result of new flow monitoring; Continued implementation of GSI and Street Flood Mitigation Programs.

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; Continued implementation of GSI and Street Flood Mitigation Programs.

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.

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 Reprot" 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 for pathogens.

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 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

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.