

**GLOUCESTER COUNTY UTILITIES AUTHORITY
PUBLIC BOARD MEETING MINUTES
October 12, 2022**

CALL TO ORDER

The Public Meeting of the Gloucester County Utilities Authority was called to order at 5:30 P.M. by Chairman Howard Bruner in the large conference room of the Administration Building, 2 Paradise Road, West Deptford, New Jersey.

Colleen O'Brien stated for the record that the date, place and time of this meeting were published in the South Jersey Times and on our web site as required by the Open Public Meetings Act.

PLEDGE OF ALLEGIANCE

ROLL CALL

C. O'Brien took roll:

Present where: W. Berglund, T. Bianco, H. Bruner, E. Coryell, R. Cossaboon, R. Giuliani, D. Halpin and J. Sabetta

Absent was: S. Fogarino

Also present: John Vinci and Colleen O'Brien

Others present: James Pierson – Angelini, Viniar & Freedman Law firm

APPROVAL OF MINUTES

Motion was made by J. Sabetta, seconded by E. Coryell to approve the minutes of the September 14, 2022 Regular Public Board Meeting. There were no questions on the motion. Motion was approved by a voice vote.

SOLICITOR'S REPORT:

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| Resolution No. 2022-104 | Resolution authorizing an Industrial Pretreatment Discharge Permit to Helen Kramer Landfill Site. |
| Resolution No. 2022-105 | Resolution of the Gloucester County Utilities Authority authorizing the emergency repair of the Sewer Force Main on Monroe Bike Path. |
| Resolution No. 2022-106 | Resolution of the Gloucester County Utilities Authority to provide Rules and Regulations for Public Participation at Board Meetings. |
| Resolution No. 2022-107 | Resolution authorizing the purchase of Two (2) new Club Car "Carryall 500" Electric Golf Cart through the Educational Services Commission of New Jersey Cooperative Purchasing System. |
| Resolution No. 2022-108 | Resolution of the Gloucester County Utilities Authority authorizing and accepting Change order #1 for the Mantua Main Project. |
| Resolution No. 2022-109 | Resolution of the Gloucester County Utilities Authority authorizing the purchase of a 2023 John Deere Gator HPX615E from Deere & Company through the National Cooperative Purchasing Agreement Sourcewell Contract #031121-DAC. |

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- Resolution No. 2022-110 Resolution endorsing an application of the Township of West Deptford for an Allocation of Capacity of 40,000 GPD for the project known as Separation and Recovery Systems Operating, LLC, NJDEP Permit #20-0332.
- Resolution No. 2022-111 Resolution of the Gloucester County Utilities Authority endorsing an application of the Deptford Township Municipal Utilities Authority for a NJDEP Treatment Works Approval for the Project known as Heritage Phase V.
- Resolution No. 2022-112 Resolution of the Gloucester County Utilities Authority endorsing an application of the Woolwich Township for a NJDEP Treatment Works Approval for the Project known as 261 Paulsboro Road Redevelopment.
- Resolution No. 2022-113 Resolution of the Gloucester County Utilities Authority authorizing the purchase of a 2023 Ford Explorer (K7B) Base RWD from National Auto Fleet Group through the National Cooperative Purchasing Agreement Sourcewell Contract #091521-NAF.

A motion was made by J. Sabetta to approve the above listed Resolutions 2022-104 through and including 2022-113. The motion was seconded by E. Coryell. There were no questions on the motion. Motion was unanimously approved by voice vote.

EXECUTIVE DIRECTORS REPORT:

ENGINEERS REPORTS: Remington & Vernick: Submitted with packet, please see attached.

PAYMENT OF BILLS:

Motion was made by J. Sabetta, seconded by D. Halpin for payment of bills. There were no questions on the motion. Motion was unanimously approved by voice vote.

PUBLIC PORTION:

ADJOURNMENT:

There being no further business to discuss, J. Sabetta made a motion to adjourn the meeting. The motion was seconded by R. Giuliani. Motion was unanimously approved by voice vote.

Respectfully submitted,


Colleen O'Brien
Recording Secretary

ATTEST:



SECRETARY

Approved by the GCUA Board of Commissioners at a Regular Public Meeting held on November 9, 2022.

Certification

I hereby certify that the minutes of the Gloucester County Utilities Authority Meeting dated on October 12, 2022 as submitted are true and accurate. I personally took the minutes and recorded the same. It is to be noted that these minutes have not been adopted by our Board of Commissioners and will not be adopted until November 9, 2022



Colleen O'Brien
Recording Secretary



**REMINGTON
& VERNICK
ENGINEERS**

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**FISCAL YEAR 2022 ANNUAL
ENGINEER'S REPORT
ON THE OPERATION OF THE
GLOUCESTER COUNTY UTILITIES AUTHORITY'S
WASTEWATER TREATMENT AND
CONVEYANCE SYSTEMS
OCTOBER 2022**

PREPARED BY:

**DENNIS K. YODER, PE – NJ 31866
OF REMINGTON & VERNICK ENGINEERS**

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1.0 INTRODUCTION

The Gloucester County Utilities Authority (GCUA) is a regional wastewater collection and treatment system serving 16 municipalities and several industrial customers in Gloucester County. In 2016, the Authority's sewer service area was amended to include a portion of Harrison Township at the Route 55 and Route 322 corridor and the Route 322 in Woolwich Township. Current planning documents submitted to NJDEP, includes adding Swedesboro and the GCIA Landfill into the sewer service area. A WQMP update is at NJDEP for review. Every year, the GCUA accepts and treats over 6.6 billion gallons of wastewater from the residents, businesses and industries it serves. Each and every year, the GCUA reclaims 6.6 billion gallons of wastewater and returns it back into the environment as a quality resource to be enjoyed by the people residing along the Delaware River Estuary or as a beneficial water reuse as water supply to West Deptford Energy Power Plant.

This annual report covers the operations of the Gloucester County Utilities Authority's wastewater treatment plant and conveyance system for the period of October 1, 2021 - September 30, 2022. Information on maintenance, equipment, repairs, sludge handling, and other wastewater management matters is presented. In addition, sewer system planning projects are included, some of which will be scheduled for design or construction in fiscal year 2023.

2.0 SEWERAGE SYSTEM

The sewerage collection and conveyance system consist of three drainage areas: (1) Mantua Creek, (2) Woodbury Creek and (3) Paulsboro. The Woolwich/Swedesboro/GCIA flows are projected to connect to the Mantua Creek region in 2023.

The Authority owns and operates eleven (11) pump stations, fourteen (14) force mains and twelve (12) gravity interceptors. The overall system is reported to be in good condition. While the regional sewer system functions adequately at this time, portions of the system experience hydraulic restrictions during large storm events. No sewer system overflows were reported in 2022 due to rain events. The Authority's Operation staff maintains the collection system and the associated easements. In past years, selected sections have been cleaned and televised to inspect the condition of the pipes. Inspection results have been favorable, except for the Porches Branch Interceptor, for which rehabilitation work was initiated and completed in 2015 for the first two miles of 27" and 30" interceptor pipe. An additional 950 LF section of the Mantua Creek Interceptor was also rehabilitated using cured-in-place trenchless technology in 2016. 2000 LF of Monroe force main which has had multiple breaks was replaced in 2021. Additional sections will be addressed as capital improvement projects.

During the report period, the Authority completed construction projects under the capital improvement funding, and others through the renewal and replacement budget. The Authority initiated the construction of the Mantua Main project to connect expanded WQMP areas. Stream bank repairs to protect and eliminate sewer pipe and manholes exposed due to erosion have also been completed. Wet well lining and piping improvements to the Whitman Square Pump Station was completed to add life to the infrastructure.

3.0 WASTEWATER TREATMENT

3.1 GENERAL

The Authority operates one (1) primary wastewater treatment plant for its service area. Wastewater flow is conveyed via pumping stations and gravity interceptors for treatment at the Wastewater Treatment Plant located at 2 Paradise Road in West Deptford Township. The plant had a rated capacity of 24.1 MGD, which has been increased to 27.0 MGD. Current average day flows remain under 18 MGD.

During the report period, the treatment plant has met or exceeded the effluent discharge permit limits for all parameters as promulgated in the NJPDES permit. The effluent discharge is to the Delaware River. Daily flows up to 10 MG of the finished effluent continues to be diverted for use as cooling and process water for the West Deptford Energy Power Generating Plant.

The Authority continues to budget and complete construction projects to upgrade aging infrastructure. Some projects are capital funded expenditures and others are financed by the New Jersey Environmental Infrastructure Program.

The GCUA continues to operate a Water Reuse Plant, which daily produces approximately 100,000 gallons of irrigation water for the Gloucester County owned and operated Pitman Golf Course. This project mines wastewater from the Chestnut Branch Interceptor and provides advanced treatment using membrane technology. A membrane replacement was completed this year, using GCUA staff labor.

3.2 SLUDGE HANDLING

GCUA had operated a sludge handling and incineration system for primary, secondary sludge. The incinerators were taken off services in December 2018 and replaced with two (2) egg-shaped anerobic digesters. After thickening, primary and secondary sludge are mixed prior to dewatering using belt filter presses. The blended primary and waste activated sludge is now conveyed to anerobic digesters for solids reduction.

The overall condition of the sludge handling operations at the CGUA treatment plant is good. Gravity Thickeners and Blend Tank structures have been rehabilitated, and Equipment has been replaced in the past several years. However, changes in EPA air regulations and aging facilities have led GCUA to initiate a project to change the bio-solids handling process to anaerobic digestion to create a class B bio-solid. Construction was completed for the digesters and sludge storage tank. GCUA has obtained NJDEP approval to use digested sludge as beneficial cover at the GCIA landfill.

In conjunction with switching to anaerobic digestion, the Authority has commenced design of a Combined Heat & Power System to use the bio-gas from the Anaerobic Digesters. The construction for the gas conditioning system, new switchgear and gas storage projects are in progress. A project to construct two (2) combined heat and power engines for energy production has been initiated for 2023 construction. An energy grant has been awarded to fund a portion of the project.

The Authority is also completing contracts to rebuild sludge presses, install new thickened sludge conveyance and to add a canopy to protect thickened bio-solids, prior to transport.

Design is in progress to add Primary Clarifier Waste Sludge Screen and to replace Headworks Bar Screens. Structural repairs of concrete is also planned for the Headworks.

4.0 SEWER PLANNING

The GCUA has an approved Wastewater Management Plan. The WQMP notes an initial plant re-rate for expansion to 27 MGD with an ultimate build out flow determined to be 37.7 MGD. An updated county-wide plan has been submitted to NJDEP in August 2020. A NJPDES permit for the increase to 27 MGD remains in-place. The new WQMP and various amendments will permit GCUA to take flows from Harrison Township, Route 55 and Route 322 corridors, portions of Woolwich Township, Swedesboro and GCIA landfill. The WQMP submission remains with NJDEP for review.

The Authority continues to review projects and plan for the future using inputs from a completed Asset Management Plan. The Authority works with its staff and professional consultants in the development of a Capital Projects Priority List. The intent of this list was to enable the Authority to be aware of the projects that may need to be initiate in the next 5-years. This list is updated annually, reviewing and establishing priorities. Some of the key projects on the list includes:

- Interceptor Rehabilitation Future Phases
- Mantua Creek Pump Station Upgrade
- Mantua Creek Central Regional Pump Station
- GCIA/Woolwich/Swedesboro Sewer Connection
- Monroe Force Main Improvements (additional sections)
- Chlorine Produced Oxidants Treatment System Project
- Stream Erosion Repairs to Protect Interceptor Pipes
- Screening Receiving Station
- CHP with Bio-gas Conditioning & Storage
- Fats, Oil & Grease Receiving Station
- Lining of various pump station wet wells
- Chestnut Branch Interceptor Capacity Improvements
- Primary Clarifier Waste Screening Equipment
- Headworks Bar Screen Replacement & Structural Repairs
- Warren Street Pump Station Upgrades