

August 20, 2025

Melanie Walter
Division of Local Government Services
101 S. Broad Street
PO Box 4803
Trenton, New Jersey 08625

**RE: Borough of Matawan, Monmouth County, New Jersey
Water Infrastructure Protection Act Process
Submission of Reports & Analysis
R&V File No. 1331T007
Fed Ex Priority Overnight Delivery**

Dear Ms. Walter:

The Borough of Matawan is interested in selling their public potable water and sanitary sewer systems to a public or private entity through the Water Infrastructure Protection Act (WIPA). The Borough would like to evaluate the possibility of a sale of the systems in order to provide some relief to their consumers from the significant financial burden that will be required to address the current debt service and implement the necessary capital improvements that both systems require to remain safe and operational.

Our office has completed extensive reviews of both systems, determined the value of the systems, compiled a capital improvements plan to quantify required maintenance and the associated costs. In addition, the Borough hired an independent financial advisor, NW Financial, to complete a financial analysis of the system. . After completing this analysis, we have identified the presence of three Emergent Conditions and crafted an Emergent Conditions Report, in compliance with the WIPA process, that documents the presence of such conditions. On August 19, 2025, the Borough passed resolution 25-08-03 (copy enclosed) indicating their desire to investigate the sale of the Borough's water and sewer systems through the WIPA Process. This included acceptance of the required reports and authorization for Remington & Vernick to transmit the reports to the applicable agencies.

In accordance with the WIPA process, we are distributing copies of the following reports to the Board of Public Utilities (BPU), Department of Community Affairs (DCA) Director of Local Government Services (DLGS), the Department of Environmental Protection (DEP), and are being made available for public review.

- Water and Sewer Utility System Asset Evaluation & Capital Improvement Plan Dated July 2025 by RVE
- Water and Sewer Systems Financial Asset Evaluation July 2025 – by NW Financial
- Water and Sanitary Valuation dated July 2025 – by RVE
- Emergent Condition Evaluation dated July 2025 – by RVE

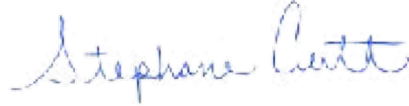
Please note that the public notice (copy enclosed) along with the enclosed reports were posted 30 days prior to the public hearing held August 19, 2025, as designated through Resolution 25-06-15 (copy

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Borough of Matawan
Submission of Reports and Analysis

enclosed) that was passed by the Borough. The hearing to present the emergent conditions and findings of the report was held on August 19, 2025.

We look forward to working with you on this submission. Should you have any questions, comments, or require additional information, please feel free to contact Julia Amick by phone via (609) 217-9961 or by email via joseph.mingle@rve.com.

Very truly yours,
REMINGTON & VERNICK ENGINEERS, INC

A handwritten signature in blue ink that reads "Stephanie Cuthbert". The signature is fluid and cursive, with the first name "Stephanie" being more prominent than the last name "Cuthbert".

Stephanie Cuthbert, PE, CME
Principal | Executive Vice President | Water & Wastewater Department Manager

Cc: Mayor and Council
City Administrator
Julia Amick, RVE

RESOLUTION 25-08-03

A RESOLUTION PROMULGATING EMERGENT CONDITIONS HAVE BEEN DOCUMENTED FOR THE WATER AND SANITARY UTILITY SYSTEM BASED ON THE SUBMISSION AND THE ACCEPTANCE OF THE INDEPENDENT UTILITY ANALYSIS, VALUATION AND LONG-TERM IMPACT ON THE RESIDENTS OF THE BOROUGH OF MATAWAN

WHEREAS, pursuant to P.L. 2015, Chapter 18, the Borough of Matawan has hired an independent advisor to evaluate and value the Matawan Water and Sanitary Utility System; and

WHEREAS, the independent advisor has undergone a complete review of the Evaluation and Assessment Report of the Borough of Matawan Water and Sanitary Utility Systems, including a Capital Improvement Plan to address the deficiencies of the Utility System and defining an Emergent Condition in accordance with P.L. 2015, Chapter 18; and

WHEREAS, the independent advisor has established the short-term and long-term impact on the rate-payers of the Borough; and

WHEREAS, a public hearing was conducted on August 19, 2025 to review the proposed emergent condition certification with notice of the meeting being made pursuant to N.J.S.A. 58:30-5d no less than 30 days prior to the date of the hearing.

NOW THEREFORE, BE IT RESOLVED by the Council of the Borough of Matawan that:

1. Upon due consideration of the findings of the financial advisor, it does find that one or more emergent conditions exist for the Borough of Matawan Water and Sanitary Utility System under P.L., Chapter 18 as more fully described by the Emergent Conditions Evaluation and that the Borough does intend to sell its water and sanitary sewer assets to a capable private or public entity to address the emergent conditions and to operate and maintain the system.
2. That the following reports are approved and certified as prepared by the independent advisor:
 - a. Water and Sewer Utility System Asset Evaluation & Capital Improvement Plan dated July 2025;
 - b. Water and Sewer Systems Financial Asset Evaluation dated July 2025;
 - c. Water and Sanitary Valuation dated July 2025; and
 - d. Emergent Condition Evaluation dated July 2025.
3. That a true copy of this Resolution and the approved reports and Certification of Emergent Conditions be submitted to the Board of Public Utilities, the Department of Community Affairs and the New Jersey Department of Environmental Protection as part of the Water Infrastructure Protection Act process within 5 days of adoption of this Resolution.
4. The Borough of Matawan shall make the approved reports and Certification of Emergent Conditions available for public review.

CERTIFICATION OF RESOLUTION

I, Karen Wynne, Municipal Clerk of the Borough of Matawan, County of Monmouth, State of New Jersey, do hereby certify the foregoing to be a true and correct copy of a Resolution adopted by the Council of the Borough of Matawan on August 19, 2025.

IN WITNESS WHEREOF, I have hereunder set my hand and official seal of the Borough of Matawan this 19th day of August, 2025.

Karen Wynne

Karen Wynne, RMC
Municipal Clerk

**BOROUGH OF MATAWAN
WATER AND SEWER UTILITY SYSTEM
ASSET EVALUATION &
CAPITAL IMPROVEMENT PLAN**

PREPARED FOR

Borough of Matawan
201 Broad Street
Matawan, NJ 07747

PREPARED BY

REMINGTON & VERNICK ENGINEERS
2059 Springdale Road
Cherry Hill, NJ 08003
(856) 795-9595

July 2025

Executive Summary

The Borough of Matawan (Borough) authorized Remington & Vernick Engineers to prepare an evaluation of the existing water and sanitary facilities. The purpose of the study was to identify the current and long-term needs of the systems and to estimate the long-term cost of operation and maintenance of the systems. The evaluation was requested to provide a comprehensive, transparent overview of the systems as the Borough is trying to establish the long-term costs of the systems based upon the current debt service and future needs.

To develop a complete understanding of the existing systems and the Borough's current operations, the Borough invited Remington & Vernick staff to tour the existing water and sewer facilities, review past and current utility records, and interview utility personnel. Based upon the review of the existing system, it is our opinion that the existing infrastructure requires upgrades and rehabilitation. While investment has been made by the Borough over the past 20 years to upgrade the utility systems, the amount of infrastructure owned and operated by the Borough is large. Accordingly, additional work is still necessary to replace and improve aging / wearing infrastructure in the existing utility systems.

During the system evaluation, it was noted that the Public Works Department is proactive in their inspection and improvements of some of the critical elements of the system (i.e. Water Treatment Plant). However, sufficient funds are not available for the routine maintenance and necessary upgrades of the above grade and below grade infrastructure (i.e. mains and pump stations). Much of the Borough's below grade infrastructure dates back to the original installation of water and sewer infrastructure in the Borough, with much of the system dating back to the early 1900s. This lack of adequate historical investment is experienced in many older systems, particularly with the below grade infrastructure which is "out of sight, out of mind". However, a proactive approach to replacement of the aging distribution and conveyance system is more cost effective than a reactive (repair) approach and enhances the condition and performance of the utility system.

Much of this report involves discussion of the sustained maintenance of the Borough's water and sewer utility infrastructure. The contents of this report are the platform on which development of the water utility and sanitary utility improvement plan over the next 10 years is predicted. This is the improvement plan that the Borough should consider in their planning and annual budgets.

As is demonstrated in this report, the planned replacement of the below grade infrastructure is *conservative*. This conservative approach was selected to allow the Borough to budget for prioritized routine replacements while not replacing the infrastructure before the end of its useful life. As is clear in the report, the Borough has the ability to examine the progress of the 10-year plan on an annual basis and adjust the improvement budget to make sufficient improvements, as required, to maintain and sustain the utility infrastructure.

Based upon the 10 Year Capital Improvements Plan, it is estimated that the annual cost of the capital improvements over the next 10 years will cost an *average* of \$3,600,313.25 per year. It should be noted that this represents the improvement schedule which was developed previously to benefit the utility.

**Water and Sewer Utility System Evaluation and
Capital Improvement Plan
Borough of Matawan
July 2025**

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WATER AND SEWER UTILITY EVALUATION

BOROUGH OF MATAWAN

Section 1 - Introduction

The Borough of Matawan (Borough) is located in Monmouth County, New Jersey. It covers approximately 2.4 square miles of area and has approximately 9,566 residents. The Borough owns and operates their own potable water supply, water treatment plant, water distribution system, a series of sanitary sewer lift stations, and a sanitary sewer conveyance system consisting of the following:

Water:

- One (1) Active Water Treatment Plant (WTP);
- One (1) 1.0 Million Gallon Standpipe;
- One (1) 1.0 Million Gallon Standpipe;
- Well No. 3 rated for a 800 GPD capacity;
- Well No. 4 rated for a 800 GPD capacity;
- One (1) Interconnection with New Jersey American Water;
- Two (2) Emergency Interconnections with Township of Aberdeen ;
- Estimated 36.6 miles of water main, ranging in size from 4" to 16" in diameter;
- Approximately 2,886 water service connections;
- 933 Valves, ranging 4" to 16" in diameter;
- 348 Fire Hydrants.

Sewer:

- Ten (10) Sanitary Sewer Lift Stations;
- Estimated 35 miles of sanitary sewer main, ranging in size from 2" to 36" in diameter;
- 801 Sanitary manholes;
- Estimated 2,886 service laterals.

The Borough authorized Remington & Vernick Engineers to tour their existing utility facilities, review current records, and interview utility personnel to prepare an evaluation of the existing utility facilities. Included in the evaluation of the system was an analysis of both above ground and below ground infrastructure. Information such as the known age of system components, recent improvements/upgrades, and repair /emergency response records were utilized to evaluate the system.

The intent of the evaluation is to provide a summary of the Borough's major utility facilities and present findings and potential improvements regarding the physical condition, operation, and maintenance of these facilities.

Several of the recommendations presented herein relate to the visual assessment of the of existing facilities as well as achieving compliance with current regulations. This report may serve as a preliminary basis for establishing the utility infrastructure improvements which may need to be completed and will assist the Borough in developing a long-term capital utility improvements plan. Because estimated costs are provided for all outlined improvements, the Borough may use this report for preliminary budgeting and as a basis for rate review discussions.

As an overall observation of the utility, it should be noted that the utility personnel have done well in maintaining the infrastructure in a clean and orderly manner.

WATER AND SEWER UTILITY EVALUATION BOROUGH OF MATAWAN

Section 2 - Water Treatment Plant and Groundwater Wells

2.1. General Description

The Borough owns and operates the Middlesex Road Water Treatment Plant (WTP) located at 54 Middlesex Road in the Borough of Matawan, NJ, 07747. The property is located on Block 71, Lot 16 on the same lot as the Spotswood VFW. The Middlesex Road WTP was originally constructed in the 1956 and consisted of Well No. 3, filters, clarifier, backwash storage tank, pumping equipment, chemical treatment systems, and an onsite generator. Well No. 4 and the 1.0 MG Standpipe are also located on this property. The facility underwent a renovation in 2012, which included replacement or upgrades to most of the treatment components.

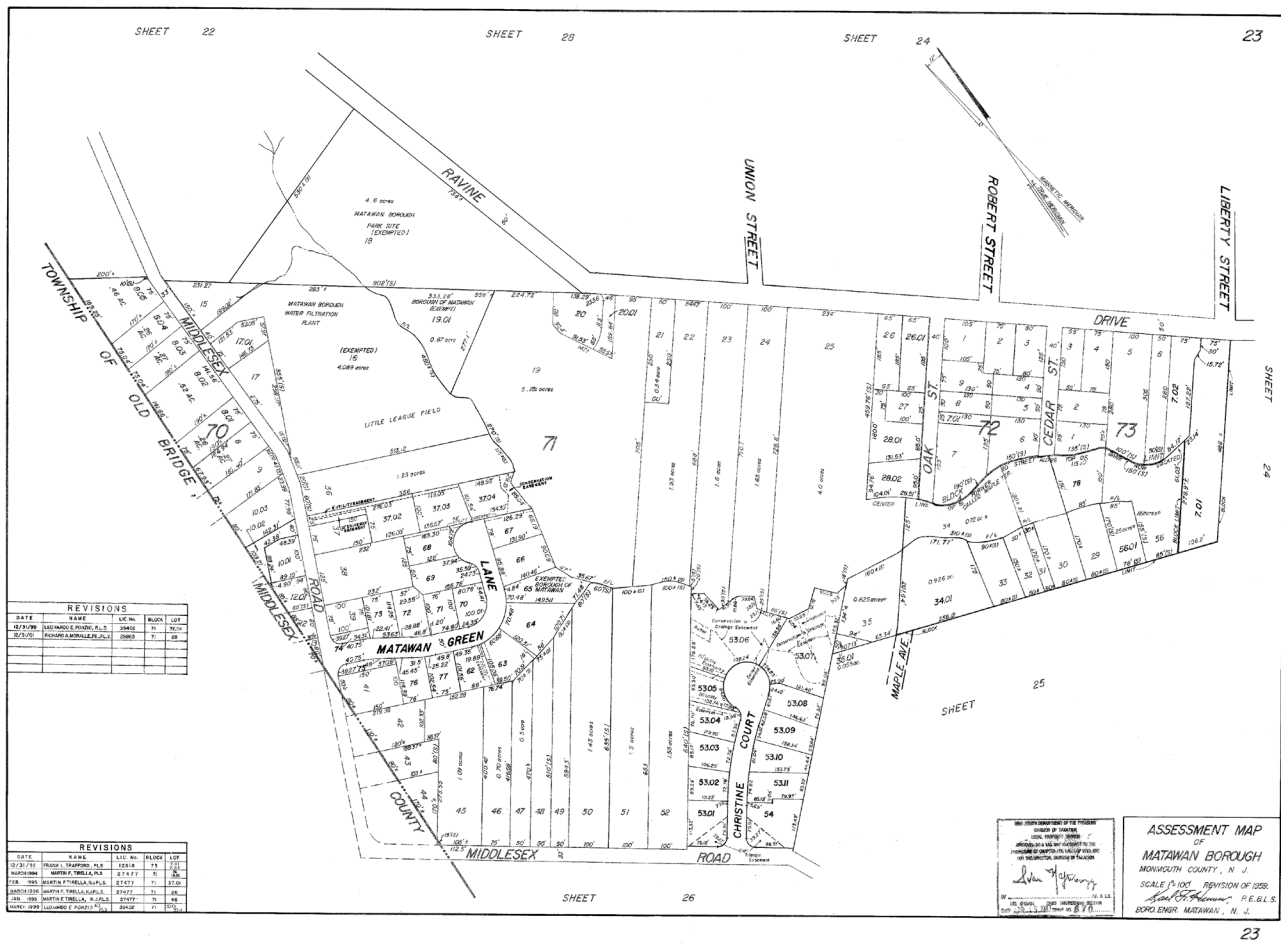


Photo No. 1 – Tax Map of Middlesex Road WTP – Block 71, Lot 16

WATER AND SEWER UTILITY EVALUATION BOROUGH OF MATAWAN



Photo No. 2 – Aerial of Middlesex Road WTP

2.2. Allocation Permit and Projected Water Demand

The Borough is currently operating under their Allocation Permit #5320 that became effective November 1, 2015 and will expire on October 31, 2025. The diversion sources included in this permit are supply Wells No. 3 and No. 4, both of which are sourced from the Old Bridge Aquifer. The Borough is limited to pump from all diversion sources at a total of 48 million gallons per month at a maximum rate of 1400 gallons per minute and a maximum annual diversion of 199.5 million gallons per year. The Borough provides water to a population of 9,566 (as per 2020 US Census; www.census.gov) through approximately 2,886 service connections. A copy of the current allocation permit is provided in Appendix B. The Borough sources water from New Jersey American Water Company during off peak months to supplement their allocation. This allows them to supply water as needed during the summer months without exceeding their permitted allocation.

2.3. Current Water Demand

The Borough currently has a temporary ban on future new water service connections. Additional development is expected within the Borough and will be addressed with a backup well which is currently under design.

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BOROUGH OF MATAWAN

	Current Peak*	Committed Peak	Total Peak
Daily Demand	1.081 MGD	0.062 MGD	1.143 MGD
Monthly Demand	33.525 MGM	0.961 MGM	34.486 MGM
Yearly Demand	284.869 MGY	7.543 MGY	292.412 MGY

*Figures based upon NJDEP DataMiner Water Use Results last updated July 2022.

2.4. Water Utilities Facilities

The following section provides technical information on the water supply, treatment, and distribution systems, including observations of the facilities and information provided by the licensed operator. Anticipated future facility improvements focus on the physical conditions, site conditions, and equipment operation and maintenance including observations at the time of the facility tours.

In general, the water supply, treatment, and pumping facilities are noted to be newer infrastructure not near the end of useful life. Most of the recommended capital improvements are related to improving routine maintenance operations for sustainable operation of the system and planning for the replacement of aging infrastructure.

2.4.1. Water Treatment Plant Main Service Building

General Site Description

The Water Treatment Plant (WTP) was originally constructed in 1956, with a significant renovation performed in 2012. Most assets were replaced or renewed during the 2012 renovation project. The Water Treatment Plant is located on Middlesex Road and draws water from two (2) wells, one within the building and the other located 300' away. Raw water enters the plant and is aerated and immediately treated with lime and sodium hypochlorite. Water then proceeds into the clarifier. Three (3) high service pumps then distribute the water through three (3) sand and anthracite pressure filters. The water proceeds to the post-treatment process and then into the distribution system. Between November and March, the plant is shut down and all water distributed to the Borough is provided by New Jersey American Water. During this break in operations, the plant is taken out of service and the equipment is broken down and cleaned, and all maintenance is completed with no interruptions to service.

Chemical Feed System

The Borough's treatment runs raw water through an extensive chemical treatment process before proceeding through the distribution system. After aeration, lime and sodium hypochlorite is injected into the water as it enters the clarifier. Once through the clarification tanks, alum and zinc phosphate are added to the water before being sent through the filters, then a final treatment with sodium hypochlorite before going out to the distribution system.

Electrical Systems and Controls

The incoming 480/277V, 3-Phase, 4-Wire electrical service is rated at 800 Amperes. The emergency natural gas generator is also 480/277V, 3-Phase, 4-Wire and is rated at 355kW/444kVA. The emergency generator serves the entire plant. The existing main electric service motor control center (MCC) is manufactured by

WATER AND SEWER UTILITY EVALUATION

BOROUGH OF MATAWAN

Square D. The MCC is in great condition and replacement parts are readily available. The instrumentation system is controlled by a localized SCADA system. The electrical and control systems were updated with the renovation project in 2012.

Long Term Capital Improvements

The following work should be considered for the long-term maintenance and operation of the system:

- Rehabilitation of the clarifier equipment, pump suction, and backwash tanks within the 10-year planning period. Rehab consists of cleaning and painting of the tanks. This should be completed on a 10–15-year cycle to maintain the integrity of the equipment.
- Horizontal Filter Media Replacement within the 10-year planning period. Filter media should be replaced approximately every 15 years to maintain effectiveness. Over time, the filter media may become clogged or allow contaminants to pass through.
- Replacement of the chemical feed pumps and tanks within the 10-year planning period. Pumps and tanks wear over time and should be replaced on a 10–15-year cycle to maintain the integrity of the components and ensure performance is optimized.
- Large valve and flow control valve replacement within the 10-year planning period based upon operator indication of the last time valves were replaced. To maintain proper efficiency and performance, valves should be replaced every 15-20 years.
- The transmission water main from the WTP to the Ravine Drive water main. This will include new valves, hydrants, sampling station, and other related equipment.

WATER AND SEWER UTILITY EVALUATION

BOROUGH OF MATAWAN



Photo No. 3 – Lab Bench Space at WTP



Photo No. 4 – Backwash Holding Tank



Photo No. 5 – Sodium Hypochlorite Pump



Photo No. 6 and 7 – Onsite Electrical Controls and 350 kW Backup Generator

WATER AND SEWER UTILITY EVALUATION

BOROUGH OF MATAWAN

2.4.2. Well No. 3

General Site Description

Well No. 3 was originally drilled in 1956 during the initial construction of the Middlesex Road Water Treatment Plant and is housed in the filter room. The well was redrilled in 1985 and was last inspected in 2024. The pump and motor were replaced in 2024. Well No. 3 now has a rated capacity of 800 GPM. The casing and well were televised and found to be in good condition.

Historically, the Borough does not replace the wells or well pumps on a routine basis. Work is done on an as needed basis. To prevent a loss in capacity, the Borough should plan for the redevelopment and pump replacement of the well at least every 10 years.

Long Term Capital Improvements

Since the pump was replaced recently, the well will not be due for further rehabilitation until the end of the 10-year cycle. It is anticipated that Well No. 3 will undergo routine inspection bi-annually and any defects that are found during these inspections will be addressed as needed.



Photo No. 8 – Well No. 3 at Middlesex Road WTP

WATER AND SEWER UTILITY EVALUATION

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2.4.3. Well No. 4

General Site Description

Well No. 4 is located approximately 300 feet away from the filter room at Middlesex Road WTP. The well has a small prefabricated building with included heaters and is secured by a chain link fence and padlock. This well was installed after Well No. 3. The pump and motor at Well No. 4 were replaced in 2024 and the well is now rated at 800 GPM.

Long Term Capital Improvements

Due to the improvements recently made to the pump at Well No. 4 it is not anticipated that further upgrades will need to take place by the end of the 10-year planning period. Similar to Well No. 3, routine inspections will be conducted biannually to address any defects that occur.



Photo No. 9 and 10 – Well No. 4 at Middlesex Road WTP

2.4.4. Proposed Backup Well

As described previously there are capacity issues with Well No. 4. To combat these issues and allow for redundancy within the system, we are proposing the construction of a backup well on the Water Treatment Plant. Having a backup well will significantly increase firm capacity to allow for additional development. In addition, the backup well could serve as a new well should one of the existing wells fail. Construction of a backup well should be completed soon to allow for additional development without additional water purchases.

WATER AND SEWER UTILITY EVALUATION

BOROUGH OF MATAWAN

Section 3 - Water Distribution System and Storage

3.1. Water Distribution System

The water distribution system consists of approximately 36 miles of water main. The water main has been mapped in GIS format, with varying levels of details provided. Based upon the existing water system mapping, the breakdown of the existing main by diameter is estimated as follows:

Pipe Diameter	Approx. % of System
12"+ Diameter	6 %
10" Diameter	22%
8" Diameter	50%
6" Diameter	20%
4" Diameter	<2%

In accordance with NJDEP regulations, a water system with an average daily demand of 1 million gallons per day or greater is required to install a minimum 8" diameter pipe for new water main construction or for water main replacement projects; the exception being short dead-end sections of the water main. The Borough water system does not fall into this regulatory category. Instead, the 6" diameter water main is acceptable for a system the size of the Borough's current system. It should be noted that this requirement is to ensure adequate system flow is available not only to supply customer demands but also for sufficient firefighting capabilities.

Due to aging infrastructure piping throughout the Country, there has been much discussion in recent years regarding the anticipated lifespan of our underground utility piping. As a result, lifespan years have been assigned to certain types of pipe material and construction time periods. Examples of the material lifespans are:

- Asbestos Cement Pipe (AC or Transite) – 7 year lifespan ⁽¹⁾
- Ductile Iron Pipe – 100 year lifespan ⁽²⁾
- Cast Iron Pipe – 75 year lifespan⁽³⁾
- Concrete Pipe – 50-75 year lifespan⁽⁴⁾

Sources:

- ⁽¹⁾ Chrysotile Institute
- ⁽²⁾ Ductile Iron Pipe Research Association
- ⁽³⁾ National Association of Corrosion Engineers (NACE)
- ⁽⁴⁾ WaterWorld

It should be noted that each of the above references clearly states that prediction of the lifespan of a below grade utility is estimated and that site specific factors such as installation methodologies, local soil characteristics, local water characteristics, water hammer, electrolysis outside of the buried pipe, etc. can all have an impact on the anticipated lifespan of a pipe. In addition, it should be noted that much of the pipe throughout the Country has already surpassed its theoretical life expectancy but is still in the ground and functioning.

There has also been much discussion on how to plan for the systematic upgrade of utility piping to prevent the leaks, loss of water pressure, reduced water quality, and even collapse of a distribution system. This "underground" portion of a utility system typically goes unimproved, and improvements are typically reactive

WATER AND SEWER UTILITY EVALUATION

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rather than proactive. However, this reactive approach may not only create more costly repairs but may also negatively impact budgets and capital improvement schedules to re-allocate funds. This reactive approach not only creates an impact on the customer but results in a loss of water, unplanned re-allocation of limited staffing to handle the emergency conditions, and elevated costs for emergency repairs.

Therefore, proper planning and allocation of resources for the distribution system infrastructure improvements need to be implemented into any Long-Term Capital Improvement Plan. However, a balanced approach of gradual improvements must also be incorporated so as not to create an undo financial burden to the customer, particularly with the variability in piping lifespans due to their localized site-specific conditions. In addition, it should be noted that this is a planning mechanism to allow the Borough to begin the budgetary allocation for the strategic improvements to the water distribution system. The planning of water distribution improvements must be an on-going evolutionary process. The utility policy and replacement criteria may change from year to year based on changes to field observations and availability of funds, but the basic principle and process should remain the same.

Therefore, when examining the Borough water distribution system and improvements to incorporate into their Long-Term Capital Improvement Plan, the following were considered:

- The size and material of the water main;
- The number and location of water main and/or water service calls or failures;
- Upcoming road programs or bridge projects that are being undertaken by the County where potential water or sewer main replacement might be needed;
- Locations within the system with pressure issues including residual pressures during fire flow estimates (if any);
- Locations within the system with reduced water quality (if any);
- Water losses in a system or unaccounted for water usage (potentially indicating undetected leaks);
- Success of the Hydrant Flushing/Inspection Program;
- Success of the Valve Exercising/Maintenance Program;
- Water Service Connection / Rehabilitation or Replacement Program.

The above considerations are summarized as follows:

Size and Material of Water Main

As indicated by the table, only 2% of the water main is smaller than 6" diameter; the minimum recommended size for distribution and fire suppression requirements based upon the Borough 's current daily demand. For planning purposes, the initial focus should be on the areas where there is smaller diameter water main.

In addition, the material type of the existing water main should be considered. While the above does not denote the type of material for each size diameter, the Borough is a mixture of mostly cast iron, asbestos cement pipe, and ductile iron pipe. Taking into account the age, size, material construction, and historic areas of the system with issues, the Borough should begin prioritizing the replacement of the water distribution system.

Specifically, over the next 10 years, the Borough should plan for the necessary replacement of all 4" water main and begin to focus on the oldest remaining mains in the system where failures are occurring or there are complaints of water quality.

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Location of Water Main / Service Calls

There were no specific areas where water main leaks are prone to occur. The property owner is responsible for repairs to the service from the curb box to the residence.

Coordination of County Road or Bridge projects

The County has anticipated projects on Ravine Drive, New Brunswick Avenue, and Route 34. Water system work is expected to be completed as a part of these projects. This includes the replacement and/or upgrade of the water system in the associated area. Hydrants and service connections are to be replaced, and valving installed as needed. In regard to work done on the sewer system, improvements that require excavation are prioritized within the County paving limits. Manholes and sewer mains are to be replaced or repaired if necessary. Trenchless rehabilitation work may also be undertaken if necessary.

System Pressures

The Borough has noted that there are some areas with reduced water pressure, around 40 psi, possibly due to smaller water mains. Systemically, the pressures average 50-55 psi.

Areas of System with Reduced Water Quality

The Borough has not received any recent complaints of reduced water quality from customers of the water distribution system.

Unaccounted for Water

With respect to unaccounted water, physical loss from the distribution system can be attributed to several factors including unauthorized consumption, administrative errors, data handling errors, metering inaccuracies or failures, fire suppression activities, and hydrant flushing, among other potential sources of loss. Some portion of unaccounted water may also be attributed to system leaks. Monitoring the unaccounted-for water and rectifying the causing issues can help identify potential leaks to reduce waste and lost revenue.

The Borough has reported estimated water losses of approximately 8-10% from all sources. Most municipal facilities are unmetered, which contributes to the accounted for water.

Hydrant Flushing / Inspection Program

The Borough has an existing hydrant-flushing program that requires the flushing of hydrants once per year in the Spring in an effort to reduce incidences of rusty water. The Borough should continue with the hydrant flushing program currently in place.

Valve Exercising / Maintenance Program

At this time, the Borough has begun a valve-exercising program to satisfy the Water Quality Accountability Act (WQAA). The Borough has purchased a valve exercise machine to assist with completing the work. The WQAA requires exercising of all valves smaller than 12" every four (4) years and all valve 12" and larger every two (2) years.

Valves are a critical component of a water distribution system. Lack of ability to isolate a portion of the system when needed causes operational and service issues and can be costly to rectify (i.e. wet tap, line stop installations). Proper inspection, operation, and maintenance of the valve portion of the distribution system

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cannot be neglected.

Incorporated into the proposed water main replacement section is the inclusion of the valve replacements. Since the water main replacement schedule is targeted to the older mains, upon implementation of the recommended system upgrades, the older valves would be replaced simultaneously.

Furthermore, several sections of the Borough's collection system have been found to have insufficient valving for properly closing-off areas in order to minimize service disruption while work is being done. Additional valves should be installed in order to properly isolate mains when necessary.

Water Service Connections

The Borough is responsible for services from the water mains to the curb box and the water meter. Based upon information provided by the Borough, few new water service connections are expected each year.

The Borough has identified 145 lead or galvanized services, as well as 508 unknown services that must be investigated and replaced if found to be comprised of lead or galvanized pipe material. In accordance with NJDEP requirements, these replacements must be done prior to 2031 as such it has been included within the 10-year planning period.

3.2. Interconnections

One (1) interconnection with New Jersey American Water is located 300' south of the intersection of State Highway 34 and Broad Street. This interconnection is primarily for bulk supply but can also be used in emergency situations.

The Borough also has two (2) emergency interconnections with the Township of Aberdeen. One interconnection is located at the intersection of Cross Road and Aberdeen Road and the other is located at the intersection of Atlantic and Main Street.

3.3. Water Meters

The Borough's distribution system contains 2,903 meters according to documentation provided by the Borough. The Borough indicated that the vast majority of meters are located inside resident cellars. All municipal facilities are metered except for Police, EMS, and Fire services.

All failed meters will be repaired or replaced by the Borough. The Borough has recently replaced a number of older meters. The Borough is in the process of switching the system over from Sensus Meters to Neptune Meters. Approximately 800 Sensus meters remain in operation.

Since the meters are the source of revenue for the utility and allow the Borough to sustain the utility, accurate and effective metering is essential. As meters age, there is a tendency for accuracy to diminish; typically, in favor of the consumer.

It is recommended that the Borough finish the meter replacement program. Currently, most of the meters are radio read, and a small number of meters remain that are manually read. It is recommended that the Borough plan for the replacement of all existing manually read residential meters with radio read meters and all meters installed more than 20 years ago. This replacement will allow the Borough to both maintain accurate accounting of the water usage and reduce the labor requirement to obtain readings. In addition, accurate readings will

WATER AND SEWER UTILITY EVALUATION

BOROUGH OF MATAWAN

enable billing based on actual water usage as opposed to just the minimum value.

Included in the Capital Improvement is the replacement of 800 water meters in total. This pacing equates to 400 meters every other year in the beginning of the Capital Improvement Plan. Replacing all water meters will allow the Borough to maintain accurate meters without replacing the meters before the end of their service life.

3.4. Utility Personnel

The Borough has fourteen (14) full-time employees within the Public Works Department. Borough personnel responsibilities include operation and maintenance of the pump stations, wells, and storage facilities, as well as service calls, meter readings, hydrant flushing and maintenance, valve exercising, and some water main and service line repairs. The Borough contracts with an outside contractor every 2 years to respond to emergency repairs. In addition, the Borough also has contracts with an outside contractor to conduct assessments of the well pumps and high service pumps biannually as well as perform repair or rehabilitation work as needed.

3.5. Special Considerations

In July 2017, both the NJ State Senate and Assembly unanimously passed the Water Quality Accountability Act. The Act (NJSA 58:31-1 et seq.) became effective on October 19, 2017. The specifics of the Act include the following:

Water Valves

- Inspect each main stem valve and replace/repair each not operating or non-functional (i.e. not holding) valve;
- Routine inspection of the valves will be required as follows:

Valve Type	Inspection Frequency
12-inches or more	Every two years
Under 12-inches	Every four years
Service connection or customer shut-off valves	Not Applicable

- Identify the geographical location of all valves using GPS technology.

Fire Hydrants

- Test *each* fire hydrant in the system a minimum of once per year;
- Develop plan for flushing *every* hydrant in the system and every dead-end main in the system;
- Prepare records of each hydrant inspections, testing and flushing and maintain for a minimum of six (6) years;
- All fire hydrants shall be marked with the fire hydrant owner's initials or emblem;
- Identify the geographical location of all hydrants using GPS technology.

Infrastructure Investment

- Within **18 months** of the effective date of this Act, each purveyor shall prepare and implement an Asset Management Plan designed to routinely inspect, maintain, repair and *renew* its infrastructure consistent with industry standards (AWWA);
- Develop a detailed engineering analysis of the Asset Condition and Service Life;

WATER AND SEWER UTILITY EVALUATION

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- Each purveyor shall dedicate funds on an annual basis to address and remediate the highest priority project shown on the Asset Management Plan.
- Once every **three (3) years**, provide the NJDEP and BPU (as applicable) with the Asset Management Plans, improvements made, costs of the improvements made including upcoming improvements.
- Plan and implement a minimum replacement cycle of water mains taking the total length of the system and dividing by 150 (according to WQAA).

C.58:31-7.a.

Each water purveyor shall dedicate funds on an annual basis to address and remediate the highest priority projects as determined by its asset management plan. All asset management plans and system condition reports shall be certified to by the licensed operator or professional engineer of the public water system and the responsible corporate officer of the public water system, if privately held, executive director, if an authority, or mayor or chief executive officer of the municipality, if municipally owned, as applicable. The replacement cycle shall be determined by dividing the miles of water main located in the public water system by 150 or other appropriate demonstration set forth in the certified asset management plan prepared pursuant to this section.

Cyber Risk Management

- Within **120 days** after the effective date of the Act, each water purveyor that has an internet-connected control system shall complete a plan for protecting the water system;
- The plan shall include a risk assessment and implement appropriate controls to mitigate identified risks to the public water system, maintain situational awareness of cybers threats and exercise a cyber incident response plan;
- Within **60 days** after developing the cyber program, each water purveyor shall join the New Jersey Cybersecurity and Communications Integration Cell.

3.6. Long Term Capital Improvement Plan

As detailed throughout this section, the Borough should start planning for the systematic replacement of its older distribution system mains. It is recognized that pre-mature replacement of infrastructure could be viewed as wasted money. Accordingly, the ideal approach is proactive asset management which balances system sustainability and reliability with affordability.

Therefore, the following is recommended for planning and budgetary purposes:

- Planning and budgeting for the long-term replacement of all 4" water mains followed by the oldest 6" water mains; biased towards operator noted issues/breaks including the replacement of valves, fire hydrants and services at the same time. We are recommending that the Borough plan for replacement of all water mains in a 100-year timeframe to match the expected service life of those materials. This equates to approximately 1,900 LF per year.
- Continue with the existing valve exercising program. This will assist in identification of valves which no longer function and need to be replaced as a priority. Begin replacement of the valves to allow better control of the system;
- Fire Hydrant Replacement Program to be completed simultaneously with water main replacements.
- Necessary investigation and replacement of lead or unknown service connection. This is a priority and must be completed by 2031.

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3.7. Ryers Lane Tank

General Site Description

This facility is located on Ryers Lane and was constructed in the 1970's. This standpipe storage tank has a capacity of 1.0 million gallons. The ground storage tank is of painted steel construction. Due to an ongoing issue of maintaining chlorine residuals from New Jersey American Water (NJAW), tank mixers were installed during the 2013 renovation. Based upon an inspection that was done in the past couple of years as well as the review of available records and site visit, this facility appears to be in fair condition.

Long Term Capital Improvements

It is recommended that the storage tank be inspected every 10 years and the storage tank is recoated every 10-15 year. Rehabilitation of the tank will be included in the second half of the 10-year planning period.

Because no issues were identified regarding the structural or metalwork of the work, associated improvements are not included in the 10-year planning period.



Photo No. 11 – Ryers Lane Standpipe

WATER AND SEWER UTILITY EVALUATION BOROUGH OF MATAWAN

3.8. Middlesex Road Water Tank

General Site Description

This facility is located on the Middlesex Road Treatment Plant property and was constructed in the 1970's. This standpipe storage tank has a capacity of 1.0 million gallons. The ground storage tank is of painted steel construction. The tank was inspected and repainted in 2015, and a check valve was also added. Based upon an inspection that was done in the past two years as well as the review of available records and site visit, this facility appears to be in fair condition.

Long Term Capital Improvements

It is recommended that the storage tank be inspected every 10 years, and the storage tank is recoated every 10-15 years. Rehabilitation of the tank will be included in 10-year planning period.

Because no issues were identified regarding the structural or metalwork of the work, associated improvements are not included in the 10-year planning period.



Photo No. 12 – Middlesex Road Standpipe

WATER AND SEWER UTILITY EVALUATION BOROUGH OF MATAWAN

Section 4 - Wastewater Collection System

The Borough of Matawan wastewater collections system is comprised of 35.6 miles of mains and 801 sanitary manholes.

Section 5 - Sanitary Sewer Lift Stations

Staff of RVE toured the following sanitary facilities, accompanied by appropriate Matawan Borough personnel.

5.1. Somerset Place Pump Station

General Site Description

This facility is a submersible pump station that was originally constructed in 1989. It was renovated in 2002. The facility is secured by chain-link fencing and a padlock gate. The two (2) identical pumps each have a rated capacity of 150 GPM at 80 feet TDH, and the motors are rated at 15 HP. A new Franklin Miller Taskmaster Grinder was installed in 2018. Based upon the review of available records and site visits, this facility appears to be in fair condition.

Electrical and Controls

The electrical utility service, rated at 240 V, 3-phase, provides the required power. The single 45 kW natural gas generator is sized for the operation of the station, with an automatic transfer switch that was installed at the time of construction.

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- No capital improvements are proposed for the 10-year planning period. This station is of newer construction than several other stations in the Borough and may be considered for replacement during the subsequent 10-year period.



Photo No. 13, 14, and 15 – Somerset Place Pump Station

WATER AND SEWER UTILITY EVALUATION

BOROUGH OF MATAWAN

5.2. Victoria Court Pump Station

General Site Description

This facility is a submersible pump station that was originally constructed in 1992, with upgrades completed in 2002. The facility is secured by chain-link fencing and a padlock gate. The two (2) identical pumps each have a rated capacity of 150 GPM at 30 feet TDH, and the motors are rated at 3 HP.

Electrical and Controls

The electrical utility service, rated at 120/240 V, 3-phase, provides the required power. The single 40kW natural gas generator is sized for the operation of the station, with an automatic transfer switch, and was installed at the time of construction. A new Franklin Miller Taskmaster Grinder was installed in 2018. Based upon the review of available records and site visits, this facility appears to be in fair condition.

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- Pump station force main replacement;
- Generator replacement;
- Comminutor railing replacement;
- Pump repairs.



Photo No. 16, 17, and 18 – Victoria Court Pump Station

WATER AND SEWER UTILITY EVALUATION

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5.3. Center Avenue Pump Station

General Site Description

This facility is a submersible pump station that was originally constructed in 1992 and underwent rehabilitation in 2015. This rehabilitation included relocating the electrical equipment and switching the operation to a submersible station including a new bypass and a transfer switch. The facility is secured by chain-link fencing and a padlock gate. The two (2) identical pumps are run on motors that are rated at 5.5 HP.

Electrical and Controls

The electrical utility service, rated at 240 V, 3-phase, provides the required power. The single 20kW natural gas generator is sized for the operation of the station, with an automatic transfer switch and was installed at the time of rehabilitation. Based upon the review of available records and site visits, this facility appears to be in good condition.

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- No capital improvements are proposed for the 10-year planning period. This station is of newer construction than several other stations in the Borough and may be considered for replacement during the subsequent 10-year period.



Photo No. 19, 20, and 21 – Center Avenue Pump Station

WATER AND SEWER UTILITY EVALUATION

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5.4. New Brunswick Avenue / Route 516 Pump Station

General Site Description

This facility is a pump station that was original constructed in 1971 and includes an above ground doghouse. Due to clogging issues, the check valve and impellers were recently replaced. The facility is secured by chain-link fencing and a padlock gate. The two (2) identical pumps each have a rated capacity of 175 GPM at 34 feet TDH, and the motors are rated at 5 HP.

Electrical and Controls

The electrical utility service, rated at 240 V, 3-phase, provides the required power. The single 20kW natural gas generator is sized for the operation of the station, with an automatic transfer switch and was installed at the time of construction. Based upon the review of available records and site visits, this facility appears to be in good condition.

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- Due to the age of the station, complete replacement of the pump station is scheduled in the 10-year planning period. Replacement would include bypass pumping during demolition of old station and construction of a new wet well with submersible pumps, replacement of the pump station force main, and new electrical and control equipment.



Photo No. 22 and 23 – New Brunswick Avenue Pump Station

WATER AND SEWER UTILITY EVALUATION

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5.5. Buttonwood Road Pump Station

General Site Description

This facility is an above ground pump station that was originally constructed in 1960, with the pumps and generator being replaced in 1998. All components of the pump station, other than the generator, are housed in a locked brick building. The two (2) identical pumps each have a rated capacity of 440 GPM at 70 feet TDH, and the motors are rated at 15 HP.

Electrical and Controls

The electrical utility service, rated at 120/240 V, 3-phase, provides the required power. The single 45 kW natural gas generator is sized for operations of the station, with an automatic transfer switch and was installed at the time of construction. Based upon the review of available records and site visits, this facility appears to be in fair condition.

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- No capital improvements are proposed for the 10-year planning period. This station is of newer construction than several other stations in the Borough and may be considered for replacement during the subsequent 10-year period.

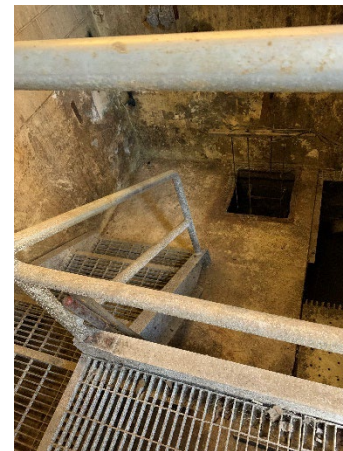


Photo No. 24, 25, and 26 – Buttonwood Road Pump Station

5.6. Lakeside Drive Pump Station

General Site Description

This facility is a can pump station that was originally constructed in 1992. The facility is secured by chain-link fencing and a padlock gate. The two (2) identical pumps each have a rated capacity of 150 GPM at 30 feet TDH, and the motors are rated at 3 HP.

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Electrical and Controls

The electrical utility service, rated at 240 V, 3-phase, provides the required power. The single 20 kW natural gas generator is sized for operations of the station, with an automatic transfer switch and was installed at the time of construction. Based upon the review of available records and site visits, this facility appears to be in fair condition.

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- Replacement of the pump station force main is scheduled for the 10-year planning period as well as any necessary upgrades to electrical and control equipment, or pumps.



Photo No. 27, 28, 29, and 30 – Lakeside Drive Pump Station

WATER AND SEWER UTILITY EVALUATION

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5.7. Christine Court Pump Station

General Site Description

This facility is a submersible pump station that was originally constructed in 1997 and is the newest lift station in the Matawan Borough system. The facility serves 11 resident houses. The facility is secured by chain-link fencing and a padlock gate. The two (2) identical pumps each have a rated capacity of 35 GPM at 44 feet TDH, and the motors are rated at 3.4 HP.

Electrical and Controls

The electrical utility service, rated at 240 V, 3-phase, provides the required power. The single 30 kW diesel generator is sized for the operation of the station, with an automatic transfer switch and was installed at the time of construction. Based upon the review of available records and site visits, this facility appears to be in good condition.

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- No capital improvements are proposed for the 10-year planning period. This station is of newer construction than several other stations in the Borough and may be considered for replacement during the subsequent 10-year period.



Photo No. 31, 32, and 33 – Christine Court Pump Station

WATER AND SEWER UTILITY EVALUATION

BOROUGH OF MATAWAN

5.8. Cross Road Pump Station

General Site Description

This facility is an can pump station that was originally constructed in 1989. The facility is secured by chain-link fencing and a padlock gate. The two (2) identical pumps each have a rated capacity of 150 GPM at 80 feet TDH, and the motors are rated at 15 HP.

Electrical and Controls

The electrical utility service, rated at 240 V, 3-phase, provides the required power. A new 60kW generator was recently replaced mainly due to noise issues. Based upon the review of available records and site visits, this facility appears to be in fair condition.

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- Due to the age of the station, complete replacement of the pump station is scheduled in the 10-year planning period. Replacement would include bypass pumping during demolition of old station and construction of a new wet well with submersible pumps, replacement of force main, and new electrical and control equipment.



Photo No. 34 and 35 – Cross Road Pump Station

WATER AND SEWER UTILITY EVALUATION

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5.9. Matawan Avenue Pump Station

General Site Description

This facility is a can pump station that was originally constructed in 1989. The facility is secured by chain-link fencing and a padlock gate. The two (2) identical pumps each have a rated capacity of 175 GPM at 60 feet TDH, and the motors are rated at 7.5 HP.

Electrical and Controls

The electrical utility service, rated at 240 V, 3-phase, provides the required power. The single 30 kW diesel generator is sized for operations of the station, with an automatic transfer switch and was installed at the time of construction. Based upon the review of available records and site visits, this facility appears to be in poor condition

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- Due to the condition of the facility, rehabilitation is scheduled in the 10-year planning period. This will include necessary electrical and control equipment replacement as well as force main replacement.

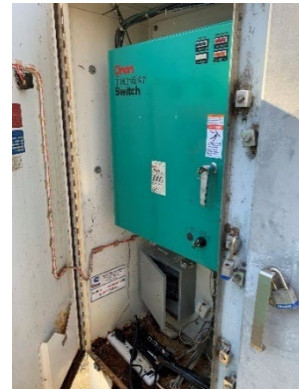


Photo No. 36, 37, and 38 – Matawan Avenue Pump Station

WATER AND SEWER UTILITY EVALUATION

BOROUGH OF MATAWAN

5.10. Oak Knoll Drive Pump Station

General Site Description

This facility is an above ground pump station that was originally constructed in 1987.

Electrical and Controls

The electrical utility service, rated at 120/240 V, 3-phase, provides the required power. The single 20 kW diesel generator is sized for one (1) pump, with an automatic transfer switch and was installed at the time of construction. Based upon the review of available records and site visits, this facility appears to be in poor condition due to age of components.

Long Term Capital Improvement Plan

The following work should be considered for the long-term maintenance and operation of the system:

- No capital improvements are proposed for the 10-year planning period. This station is of newer construction than several other stations in the Borough and may be considered for replacement during the subsequent 10-year period.



Photo No. 39, 40, and 41 – Oak Knoll Pump Station

WATER AND SEWER UTILITY EVALUATION

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Section 6 - Utility 10-Year Capital Improvement Plan

For planning purposes, this evaluation includes a 10-Year Utility Capital Improvement Plan. This list is presented in **Appendix A** herein and details proposed projects from 2026 through 2034, however some projects might begin in 2025. Please note that the list is loosely outlined by facility and the priority of projects may shift based upon emergencies or changes in the conditions. In addition, the costs associated with each project represent roughly estimated construction costs and may / may not reflect the entire scope of the project once the specific elements are identified during the preliminary design phase. The list provided should not be utilized by the Borough for bonding purposes but merely utilized as a planning and organizational mechanism. It should be noted that if the utility improvements result in the disturbance of the full roadway, the Utility currently bears the cost of the road replacement.

WATER AND SEWER UTILITY EVALUATION
BOROUGH OF MATAWAN

APPENDIX A - CAPITAL IMPROVEMENT PLAN

PROPOSED 10 YEAR CAPITAL IMPROVEMENT PLAN (2026-2035)

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 1 - 2026	
Lime Mixer Replacement (Water Treatment Plant)	\$12,000.00
Ravine Drive Water Main Replacement (Phase 1)	\$1,250,000.00
Backup Well at the Middlesex Road Water Treatment Plant	\$1,200,000.00
Lead Service Investigation and Replacement (Phase 1)	\$300,000.00
Estimated Bi-Annual Water Distribution System Improvements	\$800,000.00
Estimated WATER SYSTEM Capital Improvements	
Matawan Lift Station and Force Main Improvements	\$1,500,000.00
Victoria Court Miscellaneous Repairs	\$300,000.00
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated Annual Sanitary Collection System Improvements	\$500,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$5,962,000.00
CONTINGENCY - 15%	\$894,300.00
INFLATION - 0%	\$0.00
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$1,059,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$7,915,300.00

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 2 - 2027	
Middlesex Road Water Storage Tank Rehabilitation	\$1,000,000.00
Ravine Drive Dam Project Utility Work (Potable Water Portion)	\$900,000.00
Lead Service Investigation and Replacement (Phase 2)	\$300,000.00
Residential Water Meter Replacement	\$200,000.00
Estimated WATER SYSTEM Capital Improvements	
Cross Road Lift Station and Force Main Improvements	\$1,000,000.00
Ravine Drive Dam Project Utility Work (Sanitary Sewer Portion)	\$700,000.00
Church Street Easement Area Sewer Replacement	\$600,000.00
Buttonwood Lift Station and Force Main Improvements - Feasibility Study	\$0.00
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$4,800,000.00
CONTINGENCY - 15%	\$720,000.00
INFLATION - 3%	\$188,070.00
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$749,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$6,457,070.00

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 3 - 2028	
Ravine Drive Water Main Replacement (Phase 2)	\$1,400,000.00
Lead Service Investigation and Replacement (Phase 3)	\$300,000.00
Estimated WATER SYSTEM Capital Improvements	
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$1,800,000.00
CONTINGENCY - 15%	\$270,000.00
INFLATION - 3%	\$70,650.00
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$285,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$2,425,650.00

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 4 - 2029	
Filter Media Replacement (Water Treatment Plant)	\$250,000.00
Route 34 Water Main Replacement	\$2,500,000.00
Lead Service Investigation and Replacement (Phase 4)	\$300,000.00
Residential Water Meter Replacement	\$200,000.00
Estimated WATER SYSTEM Capital Improvements	
Lakeside/Crescent Pump Station and Force Main Improvements	\$1,000,000.00
Route 34 Sanitary Sewer Repairs and Rehabilitation	\$1,000,000.00
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$5,350,000.00
CONTINGENCY -15%	\$802,500.00
INFLATION - 3%	\$213,375.00
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$960,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$7,325,875.00

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 5 - 2030	
Aerator Unit Rehabilitation and Fan Replacement (Water Treatment Plant)	\$250,000.00
Backwash Decant Pump Replacement (Water Treatment Plant)	\$25,000.00
Sludge Transfer Pump Replacement (Water Treatment Plant)	\$40,000.00
Lead Service Investigation and Replacement (Phase 5)	\$300,000.00
Estimated Bi-Annual Water Distribution System Improvements	\$400,000.00
Estimated WATER SYSTEM Capital Improvements	
Victoria Court Easement Area Sewer Improvements	\$200,000.00
Highland Avenue/ Ravine Drive Inverted Siphon Replacement	\$400,000.00
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$1,715,000.00
CONTINGENCY - 15%	\$257,250.00
INFLATION - 3%	\$71,467.50
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$410,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$2,453,717.50

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 6 - 2031	
WTP Meter Replacement (Water Treatment Plant)	\$150,000.00
Chemical Feed Pumps and Tank Replacement (Water Treatment Plant)	\$50,000.00
Sludge Tank Check Valve Replacement (Water Treatment Plant)	\$30,000.00
Lead Service Investigation and Replacement (Phase 6)	\$300,000.00
Residential Water Meter Replacement	\$200,000.00
Estimated WATER SYSTEM Capital Improvements	
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$830,000.00
CONTINGENCY - 15%	\$124,500.00
INFLATION - 6%	\$67,770.00
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$175,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$1,197,270.00

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 7 - 2032	
Estimated WATER SYSTEM Capital Improvements	
New Brunswick Avenue Pump Station and Force Main	\$1,500,000.00
Beechwood Terrace/ Ravine Dr. Inverted Siphon Replacement	\$550,000.00
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated Sanitary Collection System Improvements	\$400,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$2,550,000.00
CONTINGENCY - 15%	\$382,500.00
INFLATION - 6%	\$202,950.00
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$450,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$3,585,450.00

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 8 - 2033	
Residential Water Meter Replacement	\$200,000.00
Estimated WATER SYSTEM Capital Improvements	
Victoria Court Pump Station and Force Main Improvements	\$500,000.00
Marc Woods Easement Area Suspended Sewer Improvements	\$500,000.00
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$1,300,000.00
CONTINGENCY - 15%	\$195,000.00
INFLATION - 6%	\$103,800.00
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$235,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$1,833,800.00

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 9 - 2034	
Ryers Lane Water Storage Tank Rehabilitation	\$1,000,000.00
Estimated Bi-Annual Water Distribution System Improvements	\$400,000.00
Estimated WATER SYSTEM Capital Improvements	
Onyx Place Easement Area Sewer Improvements	\$200,000.00
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$1,700,000.00
CONTINGENCY - 15%	\$255,000.00
INFLATION - 6%	\$136,200.00
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$315,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$2,406,200.00

MAJOR CAPITAL IMPROVEMENTS, WATER DISTRIBUTION & SANITARY COLLECTION SYSTEM PROJECTS	ESTIMATED COSTS (just construction costs)
YEAR 10 - 2035	
Residential Water Meter Replacement	\$200,000.00
Estimated WATER SYSTEM Capital Improvements	
Annual Sanitary Sewer System Cleaning and TV Inspection	\$100,000.00
Estimated SEWER SYSTEM Capital Improvements	
Estimated Capital Improvements	\$300,000.00
CONTINGENCY - 15%	\$45,000.00
INFLATION - 6%	\$22,800.00
ESTIMATED ENGINEERING, PERMITTING, INSPECTION & CONTRACT ADMINISTRATION	\$35,000.00
TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$402,800.00

GRAND TOTAL ESTIMATED UTILITY IMPROVEMENT COSTS	\$36,003,132.50
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WATER AND SEWER UTILITY EVALUATION
BOROUGH OF MATAWAN

APPENDIX B – WATER ALLOCATION PERMIT



State of New Jersey

CHRIS CHRISTIE
GOVERNOR

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
COMMISSIONER

KIM GUADAGNO
L.T. GOVERNOR

Mail Code 401-04Q
Division of Water Supply & Geoscience
New Jersey Geological and Water Survey Element
Bureau of Water Allocation & Well Permitting
401 E. State Street - P.O. Box 420
Trenton, New Jersey 08625-0420
Tel #: (609) 984-6831 - Fax #: (609) 633-1231
<http://www.nj.gov/dep/watersupply/>

October 5, 2015

Matawan Boro
201 Broad St
Matawan, NJ 07747
Attn: John J. Applegate

Dear Mr. Applegate:

Re: **Water Allocation Permit - Renewal**
Program Interest ID/ Permit No. 5320
Activity No. WAP150001

Enclosed is a permit issued pursuant to the Water Supply Management Act, N.J.S.A. 58:1A-1 et seq. This permit becomes effective on November 1, 2015 and is to divert water from 2 wells in the following Municipality and County:

MUNICIPALITY	COUNTY
Matawan Boro	Monmouth

5320 is your Program Interest ID and WAP150001 is your Permit Activity Number, and will appear on all forms and correspondence from the Bureau of Water Allocation & Well Permitting. Reference your Program Interest ID and Activity No. in all correspondence.

Be advised that as you are responsible for complying with the terms and conditions of the enclosed permit you should review them thoroughly. Failure to comply with any or all of the terms and conditions could result in penalties and/or revocation of the permit.

Within 20 calendar days following your receipt of this permit you may submit a request for an adjudicatory hearing to contest the conditions of this permit. Regulations regarding the format and requirements for requesting an adjudicatory hearing may be found in N.J.A.C. 7:19-2.13.

To request a hearing, the permittee must complete the enclosed Tracking Form and supply all the information specified in Part III of the Tracking Form. A copy of the completed, signed and dated Tracking Form, together with all of the information required by Part III of the Tracking Form, including attachments where specified, must be submitted to:

1. Janis Hoagland, Director
New Jersey Department of Environmental Protection
Office of Legal Affairs
P.O. Box 402
Trenton, New Jersey 08625

2. Terry D. Pilawski, Chief
New Jersey Department of Environmental Protection
Mail Code 401-04Q
Division of Water Supply & Geoscience
Bureau of Water Allocation & Well Permitting
P.O. Box 420
Trenton, New Jersey 08625-0420

Very truly yours,



Terry D. Pilawski, Chief
Bureau of Water Allocation & Well Permitting

Enclosure

Certified Mail No.: 7014-2870-0001-6015-3896

C: Bureau of Water Allocation & Well Permitting
Central Bureau of Water Compliance & Enforcement
Jessica Mevoli, BWAWP



State of New Jersey
Department of Environmental Protection
Bureau of Water Allocation
PO Box 426, Trenton, New Jersey 08625-0426



Water Allocation Permit

The New Jersey Department of Environmental Protection grants this permit* in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents.

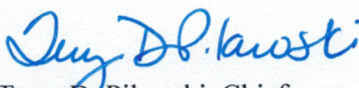
Program Interest ID/ Permit Number: 5320 Activity Number: WAP150001	Issuance Date: 10/05/2015	Effective Date: 11/01/2015	Expiration Date: 10/31/2025
Name and Address of Applicant MATAWAN BORO 201 Broad St Matawan, NJ 07747	Location of Activity/Facility Matawan Boro Monmouth		
	Type of Permit Water Allocation Permit - Renewal		Statute(s) N.J.S.A. 58:1A-1

This permit grants permission to divert water from the approved sources in the attached permit inventory, in the following municipalities, for the following water uses:

MUNICIPALITY Matawan Boro	COUNTY Monmouth	Water Uses: Public Community Supply
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This permit is subject to the attached Conditions.

Approved by the authority of:
Bob Martin, Commissioner
Department of Environmental Protection



Terry D. Pilawski, Chief
Bureau of Water Allocation & Well Permitting

10/5/15

Date

* Permit means Certification, Approval, Registration, Equivalency, etc.

STAFF REPORT PERMIT RENEWAL

In the matter of MATAWAN BORO

Renewal of Water Allocation Permit No. 5320, to divert water from two Old Bridge (also known as the Upper Potomac-Raritan-Magothy) wells in Matawan Borough, Monmouth County.

Background

On December 29, 1998 Water Allocation Permit No. 5320 was issued to MATAWAN BORO, 201 Broad St, Matawan, New Jersey, 07747 with an expiration date of December 31, 2008. Pursuant to the Permit Extension Act of 2008, N.J.S.A. 40:55D-136, and subsequent revisions in 2010, 2012, and 2014 the expiration date was extended to June 30, 2016.

An application was filed on January 2, 2015 requesting renewal of the privilege to divert the following:

Allocation Limits

From	Designation	Parameter	Limit
WELLS 3 & 4	CRITICAL AREA 1 OLD BRIDGE AQUIFER SOURCES	Water Diverted	<= 199.5 Million Gallons Per Year
5320 WA PERMIT - ALL DIVERSION SOURCES	MATAWAN BORO	Water Diverted	<= 48 Million Gallons Per Month
5320 WA PERMIT - ALL DIVERSION SOURCES	MATAWAN BORO	Maximum Diversion Rate	<= 1400 Gallons Per Minute

Approved Sources and Maximum Diversion Rates

Groundwater

Well Permit No.	Well Name or Designation	Subject Item ID	Pump Capacity (gpm)	Aquifer
2900001731	Well 3	WSWL66163	700	Old Bridge
2900005288	Well 4	WSWL66252	700	Old Bridge

Findings of Fact

1. The diversion is used for Public Community Supply and serves the communities of Aberdeen, Marlboro, Old Bridge and Matawan.
2. This application request is for a renewal of an allocation granted by the following:

Permit No.	Date Issued	Source of Water	Diversion Amount	
			(mgm)	(mgy)
5320	12/29/1998	2 Old Bridge Wells	48	199.5
5320	01/15/1993	2 Old Bridge Wells	61.3	199.5
5320	10/17/1990	2 Old Bridge Wells	61.3	199.5
5320	01/29/1988	Old Bridge, Lake Lefferts	68.2	-
5320	10/02/1985	4 Old Bridge Wells	68.2	-
1302	02/17/1966	5 Old Bridge Wells	2.2 mgd	
871	10/13/1955	3 Old Bridge Wells	1.2 mgd	
577	12/1942; 02/1945	2 Old Bridge Wells	0.5 mgd	
295	03/14/1928	1 Old Bridge Well	0.25 mgd	

3. The applicant's diversion is located within the depleted portion Area of Critical Water Supply Concern No. 1 and their portion of the safe and dependable yield of the Old Bridge (also known as the Upper PRM aquifer) has been determined to be 199.5 mgy.
4. A review of quarterly diversion reports indicates the following water use:

a) Water diverted from Matawan Borough wells:

Year	Annual Use (mg)	Maximum Monthly Use (mg)	Average Monthly Use (mg)	Existing Allocation	
				(mgm)	(mgy)
2014	119.384	28.078 (July)	9.949	48	199.5
2013	106.552	27.008 (July)	8.879	48	199.5
2012	125.054	30.494 (July)	10.421	48	199.5
2011	130.199	32.003 (July)	10.850	48	199.5
2010	141.108	32.924 (July)	11.759	48	199.5

b) Water Imported to Matawan Borough:

Year	Annual Use (mg)	Maximum Monthly Use (mg)	Average Monthly Use (mg)
2014	151.060	22.860 (Oct)	12.588
2013	161.867	21.255 (Apr)	13.489
2012	164.610	24.166 (Oct)	13.718
2011	165.702	23.673 (Jan)	13.809
2010	176.454	25.159 (Oct)	14.705

c) Water Exported from Matawan Borough:

Year	Annual Use (mg)	Maximum Monthly Use (mg)	Average Monthly Use (mg)
2014	5.199	0.537 (Oct –Dec)	0.433
2013	5.505	0.496 (Oct –Dec)	0.459
2012	5.685	0.542 (July –Dec)	0.474
2011	5.643	0.581 (July –Sept)	0.470
2010	6.006	0.559 (July –Sept)	0.501

d) A review of quarterly diversion reports indicates the following actual water use for Matawan Borough (Total Diversion + Imports from other systems - Exports to other systems):

Year	Annual Use (mg)	Maximum Monthly Use (mg)*	Average Monthly Use (mg)
2014	265.245	50.401	22.104
2013	262.914	47.767	21.909
2012	283.979	54.118	23.665
2011	290.258	55.095	24.189
2010	311.556	57.524	25.963

* - Does not represent a true maximum, as the total diversion, imports and exports have not necessarily occurred in the same month.

5. The population served is approximately 9,266 (2014), which represents an average monthly consumption of 51 gpcd, and a peak monthly consumption of 116 gpcd based upon 2014 actual water use data (Table 4d), with a 66 percent residential use component.
6. The following information is available for the applicant's diversion sources:

Well Locations

Well Permit No.	Well Name or Designation	Elevation Above Mean Sea Level – US FEET	Location
2900001731	Well 3	86	Church St
2900005288	Well 4	73	Church St

Well Data

Well Name or Designation	Pump Capacity (gpm)	Aquifer	Drilling Completed Date	Finished Depth (feet)	Smallest Diameter (inches)
Well 3	700	Old Bridge	06/02/1956	271	10
Well 4	700	Old Bridge	01/30/1967	281	12

Well Static Water Level Data

Well Name or Designation	Historical Static Water Level Date	Level (feet)	Recent Static Water Level Date	Level (feet)
Well 3	12/29/1955	83	12/2014	110
Well 4	01/30/1967	82.580	01/2014	86

Well Chloride Data

Well Name or Designation	Historical Chloride Concentration Date	Concentration (mg/l)	Recent Chloride Concentration Date	Concentration (mg/l)
Well 3	09/18/1986	3.890	09/2014	4.1
Well 4	12/16/1986	4.170	09/2014	3.1

Well Test Data (from Well Records)

Well Permit No.	Test Date	Static Level (feet)	Pumping Time (hours)	Yield (gpm)	Drawdown (feet)	Specific Capacity (gpm/ft drawdown)
2900001731	12/29/1955	83	8	726	25	29.04
2900005288	01/30/1967	82.58	8	700	24	29.00

7. The applicant's diversion sources are located within: Planning Area No. 12, Navesink/Swimming River as designated by the New Jersey Water Supply Master Plan; the Coastal North Drought Region; and Watershed Management Area No. 12, Monmouth.

The diversion is not located within the Delaware River Basin, Pinelands, or Highlands Region.

8. A site inspection was conducted on October 17, 2014. The following information was obtained during this inspection:

Source Name	Condition	Pump House Condition	Pump Type/ Horse Power	Air Line and Gage	Able to Measure Static Water Level By Tape	Meter Type	Meter Reading
Well 3	Excellent	Excellent	Turbine/50	Yes	Yes	Totalizing	34524000
Well 4	Excellent	Excellent	Turbine/40	Yes	Yes	Totalizing	49520000

9. Flow meters for all diversion sources have been calibrated within the past five years. The most recent dates of calibration are:

Source Name	Calibration Date
Well 3	12/17/2012
Well 4	

10. The following wells have been abandoned, decommissioned, are inactive or unused:

Well Name or Designation	Well Permit No.	Depth (feet)	Status
1	4900000042	265	Decommissioned 11/09/1989
2	4900000043	258	Decommissioned 11/09/1989

11. The applicant is currently in compliance with all permit conditions. However, it should be noted that the applicant did not provide static water level measurements for Well 4 for the 4th Quarter 2014 and the 1st Quarter 2015, but comments were noted on the form indicating that the pump was disassembled for repair and the airline was also removed. Well 4 was back online in April 2015, and began diversion in May 2015.
12. Water, after use, is discharged to the Matawan Sanitary Sewer System for treatment and discharge to the Bayshore Regional Sewerage Authority, Union Beach under Permit No. NJ0024708. The treatment works are not under a sewer connection ban or other restriction imposed by NJDEP.
13. The system has the following interconnections with adjacent systems:

Name of System	Size of Interconnection	Use
Aberdeen Township	5 - 6"	Emergency
Marlboro Township	1 - 16"	Emergency
New Jersey-American Water Company	1 - 16"	Bulk purchase

14. The applicant has agreements for the sale or purchase of water from the following:

Name of System	Sale or Purchase	Quantity	Contract Date
New Jersey-American Water Company	Purchase	121.18 mgy	3/16/2015

15. The system is 100 percent metered.
16. The applicant has indicated that their unaccounted-for-water is 11 percent (2013).
17. The water system has storage capacity of 2.1 mg, as compared with a 2014 average actual water demand (table 4d) of 0.727 mgd.
18. The applicant has submitted an updated Water Conservation Plan dated October 23, 2014.
19. The estimated consumptive use of water is 80 percent, which is equivalent to 1.6 mgd, based upon the monthly allocation of 48 mgd.

Staff Analysis/Conclusions

- The applicant's current water use is reasonable.
- The applicant's current allocation is adequate to meet their future demands. Demand projections provided by the applicant indicate that their ten year demands will be 30 mgm, and 308.806 mgy. Analysis of this in conjunction with historical water use shows that the existing allocation of 48 mgm, should be sufficient to meet their needs. A comparison of the ratio of maximum monthly use to annual use for the applicant indicates that an annual allocation of 204 mgy would be sufficient to meet their needs, however historical water use shows that the existing base allocation of 199.5 mgy should be sufficient to meet demand from the applicant's wells when combined with water purchased under contract.
- Natural replenishment of ground water is probably occurring because the observed fluctuations do not follow a continual decreasing trend. Furthermore, the current water levels of the applicant's wells shows that water levels have remained relatively stable, with approximately 20 feet of seasonal fluctuation. The water levels have remained close to the same levels as when the wells were first installed.

The 2008 United States Geological Survey (USGS) Synoptic indicates that levels in the Upper PRM aquifer were stable in the area adjacent to Raritan Bay (Critical Area 1) and the PRM has experienced upward water-level trends in the PRM in parts of Critical Area 1 as well.

In order to confirm this and given the recovery that has occurred within the Critical Area and adjacent areas coupled with the proposed increases in diversions in this region, static water level reports should be required as a condition of this permit to determine future trends.

4. No adverse impacts have been reported to the Department regarding the applicant's diversion sources.
5. Analysis of applicant's chloride data indicates that chloride concentrations range from 3.1 to 4.170 mg/l in the Old Bridge aquifer at this location.

Although the results of local monitoring show that current chloride levels are not indicative of salt water intrusion conditions, this diversion contributes to the regional potential for salt water intrusion.

The applicant will be required to stay within their allotted portion of the safe and dependable yield from the Old Bridge aquifer pursuant to the Water Supply Management Act and N.J.A.C. 7:19-8. This will reduce stress on the aquifer, allow for increased replenishment and recovery of the potentiometric head, and thereby reduce the potential for salt water intrusion. Monitoring and reporting of chloride concentrations should continue to be monitored and reported to determine future trends. Additionally, although the applicant has not previously been required to submit sodium concentration data, sodium concentration measurements should begin to be submitted for Wells 3 and 4.

6. No changes in diversion rates are proposed and no problems with groundwater contamination associated with the diversion have been reported to the Bureau.

Summary

The Department has completed its review of this application pursuant to N.J.A.C. 7:19-1 et. seq. The review of this application reveals that it does not have any adverse impacts and meets, based upon the information certified to in the application, the statutory requirements of N.J.S.A. 58:1A-1 et. seq.

Therefore, based upon a review of the information submitted with the application, and the existing water allocation files, the following conclusions have been reached regarding this application:

- The allocation should be renewed at 48 mgm and 199.5 mgy and at a maximum rate of 1400 gpm.
- Upon renewal, the permittee should be required to monitor, record and report sodium concentration levels for both Wells 3 and 4 as outlined in the attached Permit Requirements document.

Therefore this application should be approved in accordance with the following recommendations as the applicant has satisfied the requirements of N.J.A.C. 7:19-2.4 et seq.

References

In addition to the historical information on file at the Bureau of Water Allocation & Well Permitting and the application submitted, the following information sources were also utilized to establish the recommendations contained within this Staff Report:

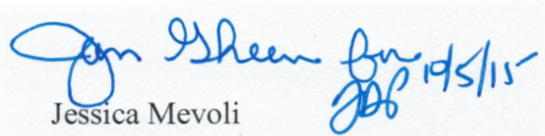
DePaul, V.T., and Rosman, Robert, 2015, Water-level conditions in the confined aquifers of the New Jersey Coastal Plain, 2008: U.S. Geological Survey Scientific Investigations Report 2013–5232, 107 p., 9 pl., <http://dx.doi.org/10.3133/sir20135232>. ISSN 2328–0328

August 1996. Water for the 21st Century: Vital Resource, New Jersey Statewide Water Supply Plan. New Jersey Department of Environmental Protection – Office of Environmental Planning, Trenton, New Jersey.

Recommendations

Issuance of the permit is recommended with an expiration date of 10 years from the effective date and is subject to the attached specific conditions:

Date: 10/2/15



Jessica Mevoli
Bureau of Water Allocation & Well Permitting

MATAWAN BORO

5320

Water Allocation Permit : WAP150001

Permit Inventory**Water Diversion Sources** - Water may be diverted under this permit from the following sources:

Source Designation (Well Permit No. or Intake No.)	Description	Subject Item ID
2900001731	WELL 3	WSWL0000066163
2900005288	WELL 4	WSWL0000066252

Group Subject Items - The following items are grouped sources for the purpose of setting permit requirements outlined in this document:

Group Designation	Group Description	Group Subject Item ID	Group Members
MATAWAN BORO	5320 WA PERMIT - ALL DIVERSION SOURCES	WSWA0000075927	CRITICAL AREA 1 OLD BRIDGE AQUIFER SOURCES, WELLS 3 & 4 (WARG077900)
CRITICAL AREA 1 OLD BRIDGE AQUIFER SOURCES	WELLS 3 & 4	WARG0000077900	2900001731, WELL 3 (WSWL066163)
			2900005288, WELL 4 (WSWL066252)

Permit Requirements

Limit Requirements

The following limits apply and are the maximum permitted allocation:

Final Permit Phase from 11/01/2015 -

Subject Item	Parameter	Limit
MATAWAN BORO, 5320 WA PERMIT - ALL DIVERSION SOURCES (WSWA75927)	Maximum Diversion Rate	<= 1400 Gallons Per Minute. [N.J.A.C. 7:19- 2]
	Water Diverted	<= 48 Million Gallons Per Month. [N.J.A.C. 7:19- 2]
CRITICAL AREA I OLD BRIDGE AQUIFER SOURCES, WELLS 3 & 4 (WARG77900)	Water Diverted	<= 199.5 Million Gallons Per Year. [N.J.A.C. 7:19- 2]

Other Limit Requirements

Final Permit Phase from 11/01/2015 -

Subject Item	Parameter	Limit
2900001731, WELL 3 (WSWL66163)	Rated Pump Capacity	<= 700 Gallons Per Minute. [N.J.A.C. 7:19- 2]
2900005288, WELL 4 (WSWL66252)	Rated Pump Capacity	<= 700 Gallons Per Minute. [N.J.A.C. 7:19- 2]

Monitoring Requirements

Final Permit Phase from 11/01/2015 -

Subject Item	Requirement	Frequency	Monitored Parameter	Monitoring Method
2900001731, WELL 3 (WSWL66163)	Static water levels for each well indicated shall be monitored. [N.J.A.C. 7:19- 2]	Each Month	Static Water Level	Airline, Tape, or Gage
2900005288, WELL 4 (WSWL66252)				
2900001731, WELL 3 (WSWL66163)	The monthly diversion from each source indicated shall be monitored. [N.J.A.C. 7:19- 2]	Each Month	Water Diverted	Meter
2900005288, WELL 4 (WSWL66252)				
2900001731, WELL 3 (WSWL66163)	A raw water sample from each well indicated shall be analyzed for chloride concentration. [N.J.A.C. 7:19- 2]	Annually in September	Chloride	Total sample

Monitoring Requirements

Final Permit Phase from 11/01/2015 -

Subject Item	Requirement	Frequency	Monitored Parameter	Monitoring Method
2900005288, WELL 4 (WSWL66252)	A raw water sample from each well indicated shall be analyzed for chloride concentration. [N.J.A.C. 7:19-2]	Annually in September	Chloride	Total sample
2900001731, WELL 3 (WSWL66163)	A raw water sample from each well indicated shall be analyzed for sodium concentration. [N.J.A.C. 7:19-2]	Annually in September	Sodium	Total sample
2900005288, WELL 4 (WSWL66252)				

Record Keeping Requirements

Final Permit Phase from 11/01/2015 -

Subject Item	Requirement	Frequency	Monitored Parameter	Record Keeping Method
MATAWAN BORO, 5320 WA PERMIT - ALL DIVERSION SOURCES (WSWA75927)	A log book of month end meter readings for each diversion source shall be maintained on site. [N.J.A.C. 7:19-2]	Each Month	Meter Reading	Log Book

Submittal/Action Requirements

Final Permit Phase from 11/01/2015 -

Applicable Subject Items	Submittal/Action Type	Requirement
2900001731, WELL 3 (WSWL66163)	Submit Public Quarterly Report	The required monitoring results shall be recorded on the form provided by the Department. The completed form shall be submitted within 30 days after the end of each quarter. [N.J.A.C. 7:19-2]
2900005288, WELL 4 (WSWL66252)		
MATAWAN BORO, 5320 WA PERMIT - ALL DIVERSION SOURCES (WSWA75927)	Submit Water Conservation and Drought Management Plan	The permittee shall continue to implement, to the satisfaction of the Department, a water conservation and drought management program. The program shall encourage water conservation in all types of use within the area served by the permittee, including actions taken pursuant to this program and the impact thereof. An update to the water conservation and drought management plan shall be submitted. Submit according to the following schedule: on or before October 31, 2016 and then prior to October 31, every other year thereafter. [N.J.A.C. 7:19-2]

Submittal/Action Requirements

Final Permit Phase from 11/01/2015 -

Applicable Subject Items	Submittal/Action Type	Requirement
MATAWAN BORO, 5320 WA PERMIT - ALL DIVERSION SOURCES (WSWA75927)	Submit Renewal Application	A renewal application shall be submitted three months prior to the expiration date. [N.J.A.C. 7:19- 2]

Text Requirements

All Phases

MATAWAN BORO, 5320 WA PERMIT - ALL DIVERSION SOURCES (WSWA75927)

- Water may be diverted under this renewed permit for public community supply. However, water shall not be used to serve non-potable, consumptive purposes for new projects that are greater than 50 percent non-potable and greater than 50 percent consumptive, where, as determined by the Department, alternate water sources, including but not limited to reclaimed water for beneficial reuse, are feasible to serve the non-potable, consumptive needs of the project. [N.J.A.C. 7:19- 2]
- Water may be diverted under this permit only from the approved diversion sources at the maximum rates specified. [N.J.A.C. 7:19- 1]
- A major modification of this permit may be required in order to request the approval of any additional diversion sources or an increase in the pumping capacity. [N.J.A.C. 7:19- 2]
- All diversion sources shall be metered with a totalizing flow meter. [N.J.A.C. 7:19- 2]
- At a minimum, each diversion source flow meter shall be calibrated at least once every five years. [N.J.A.C. 7:19- 2]
- Each flow meter shall be calibrated to within five percent accuracy. [N.J.A.C. 7:19- 2]
- All wells shall be equipped with a metal tag showing the well permit numbers (source designation) as listed in the allocation permit inventory or have the well permit numbers painted on the casings. [N.J.A.C. 7:19- 2]
- The pumping equipment capacity shall not be increased without prior approval from the Bureau of Water Allocation and Well Permitting. [N.J.A.C. 7:19- 1]
- Any well not intended for use shall be decommissioned in accordance with N.J.A.C. 7:9D-3.1 et seq. [N.J.A.C. 7: 9D- 3]
- Any required chemical analysis shall be performed by a New Jersey Certified Laboratory. [N.J.A.C. 7:19- 2]
- Static water level shall be measured and reported as depth to water, in feet, from ground surface. [N.J.A.C. 7:19- 2]
- For pumping wells, static water level (depth to water) shall be taken when the well pump has been shut down for a recovery period of at least 12 hours. If the well cannot be shut down for the required period, it must be noted on an addendum to the Quarterly Monitoring Report form. Please note on the addendum the number of hours the well was shut down or that the reading is a pumping level. [N.J.A.C. 7:19- 2]
- All new services shall be metered in accordance with all applicable laws, regulations or codes including, but not limited to, the Water Supply Management Act. [N.J.A.C. 7:19- 6]
- All existing services shall be metered. [N.J.A.C. 7:19- 6]
- Water charges for each service connection shall be based in part on metered usage. [N.J.A.C. 7:19- 6]
- The monthly quantity of water transferred and delivered to/received from interconnections shall be reported as part of the water system monitoring on separate forms provided by the Department. [N.J.A.C. 7:19- 2]
- The Department may modify, suspend or terminate this permit, after due process, for violations of permit conditions, N.J.S.A. 58:1A-1, N.J.A.C. 7:19-1 et seq., any orders issued by the Department, or when in the public interest. [N.J.A.C. 7:19- 2]

Text Requirements

All Phases

MATAWAN BORO, 5320 WA PERMIT - ALL DIVERSION SOURCES (WSWA75927)

18. The permittee shall investigate to the Department's satisfaction complaints by users of wells or surface water supplies within the zone of influence of its diversion to determine what impact the diversion has had on such wells or surface water supplies. A report on these investigations shall be forwarded to the Bureau of Water Allocation and Well Permitting. Any well or surface water supply which becomes damaged, dry, has reduced capacity, reduced water quality or is otherwise rendered unusable as a water source as a result of the permittee's diversions shall be repaired or replaced at the expense of the permittee. Work shall be in accordance with all State, County and Municipal construction standards for potable water. After reviewing all applicable investigational reports the Department of Environmental Protection will make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and will determine how to resolve any problems resulting from the diversion. [N.J.A.C. 7:19- 2]
19. This permit is issued for a limited period, and is not subject to automatic renewal. [N.J.A.C. 7:19- 2]
20. The permittee shall be subject to such requirements as may be necessary pursuant to N.J.A.C. 7:19-8.1 et seq. [N.J.A.C. 7:19- 8]
21. The permittee is subject to such fees as may be prescribed by the regulations. [N.J.A.C. 7:19- 3]
22. The permittee shall have the right to apply at any time for modification of this permit by submission of the appropriate application forms. [N.J.A.C. 7:19- 2]
23. The permittee may informally discuss the terms and conditions of this permit at any time with the Bureau of Water Allocation and Well Permitting. [N.J.A.C. 7:19- 2]
24. The permittee shall obtain approval from the Bureau of Water System Engineering before using the diversion for public water supply. [N.J.A.C. 7:19- 2]
25. In addition to the specific management requirements cited above, and when so directed by the Department, the permittee shall comply with applicable portions of the Water Supply Management Rules (N.J.A.C. 7:19-6 et seq. and N.J.A.C. 7:19-8 et seq.) to include the determination of dependable yield; unaccounted-for water; rehabilitation; system pressure and storage; interconnections; and operation of interconnections. [N.J.A.C. 7:19- 6]
26. If the permittee violates any condition of this permit, the permittee is subject to administrative penalties up to \$25,000 per day per offense as specified. [N.J.S.A. 58: 1A-16]
27. If the permittee exceeds the annual allocation limits as specified in this permit, Administrative penalties up to \$25,000 per day per offense may be assessed. Such charge shall not apply if the diversion had been requested of and determined by the Department to be an extraordinary demand or where the permittee has been ordered to divert more water by action or order of the Department. [N.J.S.A. 58: 1A-16]
28. The issuance of this permit shall not be deemed to affect in any way action by the Department of Environmental Protection of the State of New Jersey on any future application. [N.J.A.C. 7:19- 2]
29. No change in plans or specifications shall be made except with the prior written permission of the Department of Environmental Protection of the State of New Jersey. [N.J.A.C. 7:19- 2]
30. The granting of this permit shall not be construed to in any way affect the title or ownership of property, and shall not make the Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:19- 2]
31. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:19- 2]
32. A copy of this permit shall be kept at the facility site, and shall be exhibited upon request of any authorized Department representative. [N.J.A.C. 7:19- 2]

Text Requirements

All Phases

MATAWAN BORO, 5320 WA PERMIT - ALL DIVERSION SOURCES (WSWA75927)

33. The Department has the right to enter and inspect any site, building, or equipment, or any portion thereof, owned or operated by the permittee, at any time, in order to ascertain compliance or noncompliance with N.J.S.A. 58:1A-1 et seq., 58:4A-4.1 et seq., 58:12A-1 et seq., these rules, or any other agreement or order issued or entered into pursuant thereto. Such right shall include, but not be limited to, the right to require the testing of any equipment at the facility, to sketch or photograph any portion of the site, building or equipment, to copy or photograph any document or records necessary to determine such compliance or noncompliance, and to interview any employees or representative of the owner, operator, or permittee. Such right shall be absolute and shall not be conditioned upon any action by the Department, except the presentation of appropriate credentials as requested and compliance with appropriate standard safety procedures. [N.J.A.C. 7:19- 2]
34. This permit may be transferred, with the consent of the Department, but only for the identical use of the waters. [N.J.A.C. 7:19- 2]
35. If the authorized diversion privileges are not currently diverted, subject to contract, or reasonably required for a demonstrated future need, they shall revert back to the State upon renewal or modification of the permit. [N.J.A.C. 7:19- 2]
36. The permittee shall protect each source from vandalism, tampering, and contamination at all times. [N.J.A.C. 7:19- 2]
37. This permit shall expire as indicated on the permit approval cover page; however, any action required pursuant to a critical area designation shall take precedence over this expiration date. [N.J.A.C. 7:19- 2]

**Administrative Hearing Request Checklist
And Tracking Form for Permits**

1. Permit Being Appealed:

Title and Type of Permit

Issuance Date of Permit

Permit Number

2. Person Requesting Hearing:

Name/Company

Name of Attorney (if applicable)

Address

Address of Attorney

3. The following information must be included with the request:

- a. The date the permittee received the final permit;
- b. A copy of permit with a list of all permit conditions and issues contested;
- c. The legal and factual questions at issue;
- d. A statement as to whether or not the permittee raised each legal and factual issues during the public comment period of the permit;
- e. Suggested revised or alternative permit conditions;
- f. An estimate of the time required for the hearing;
- g. A request, if necessary, for a barrier-free hearing location for physically disabled persons;
- h. A clear indication of any willingness to negotiate a settlement with the Department prior to the Department's processing of the hearing request to the Office of Administrative Law; and
- i. This form, completed with all of the information listed above, signed, and dated, including attachments, to:
 - i. Office of Legal Affairs
ATTENTION: Adjudicatory Hearing Requests
Department of Environmental Protection
401 East State Street
P.O. Box 402
Trenton, New Jersey 08625-0402
 - ii. Terry D. Pilawski, Chief
Mail Code 401-04Q
Division of Water Supply & Geoscience
Bureau of Water Allocation & Well Permitting
P.O. Box 420
Trenton, New Jersey 08625
 - iii. All co-permittees (w/attachments)

4. Signature: _____ **Date:** _____



Borough of
MATAWAN

Borough of Matawan, New Jersey

Water and Sewer Systems

Asset Valuation

July 2025



NW Financial Group, LLC

Bloomfield, New Jersey

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Executive Summary

Borough of Matawan ("Borough") is currently considering the sale of its water/sewer utility system which provides drinking water and sewage disposal its residents (the "Facilities").

NW Financial Group has been retained by the Borough to undertake an asset valuation assessment for its water and sewer assets (the "Facilities") and a financial capacity analysis for the option of the Borough retaining ownership. This report has analyzed the following:

- a. The value of the systems.

Based upon our analysis we value the systems at \$35 million.

As shown in the Valuation Analysis Section of this report, our analysis considered a range of values from a low of \$23 million to a high of \$63 million depending upon the valuation approach selected our conclusion of a \$35 million value takes into account the various factors considered by each approach.

- b. The short- and long-term impacts to ratepayers of the cash-flow structure of a proposed sale of the utilities.

Based upon our analysis we find that a sale of the systems will result in longer-term rate increases that are consistent with the rates of the much larger rate base associated with a public utility buyer.

- c. Provide an estimate as to the financial requirements necessary to address the emergent conditions identified by the City/City's engineer as set forth in the Emergent Conditions Analysis prepared by Remington and Vernick and to operate and maintain the systems.

The historical lack of investment, combined with the significant capital improvements required for a well-functioning system, has placed a financial strain on



operations. From 2014 to 2022, rates remained unchanged under previous administrations and were further held steady from 2020 to 2022 due to the COVID-19 pandemic. This nearly decade-long rate freeze exacerbated the neglect of infrastructure improvements, intensifying the current need for a planned 6.25% annual rate increase through at least 2028. These increases are necessary to finance debt and support the estimated \$36 million in capital improvements required over the next decade.

Any sale of the Facilities would produce an economic gain and/or an economic benefit to the Borough as the buyer will pay the Borough a purchase price at the time of sale and assume future costs related to facilities operations and future capital needs.

The ultimate value/benefit received by the Borough in the sale of the Facilities will depend heavily on various operating and economic variables. Most importantly, these include significant cost efficiencies that are obtainable by private operation. The various prices that have been determined within this report represent the values of the economic potential of the Facilities.

As in every valuation analysis, there are numerous factors that will affect the ultimate sale price at the time of transfer, such as current market conditions, a lender's willingness to lend and the applicable interest rate and other terms of the loan, financial strength of bidders, quality and condition of water system, limitations on rate increases and others.

There are several potential buyers/investors in the water/sewer system facility marketplace. These include large public water companies, smaller private water companies, and/or private developers/investors. Many of the large water companies are anxious to expand their footprint and in the market for acquisitions. A private buyer will review the potential of the investment and how the Facilities fit in the overall strategic plan of the company. This private ownership structure will result in more efficient operations and deliver more profit to the bottom line than a public ownership structure.

This report is based in part upon data available provided by the Borough of Matawan, its consulting engineer-RVE, and other sources.

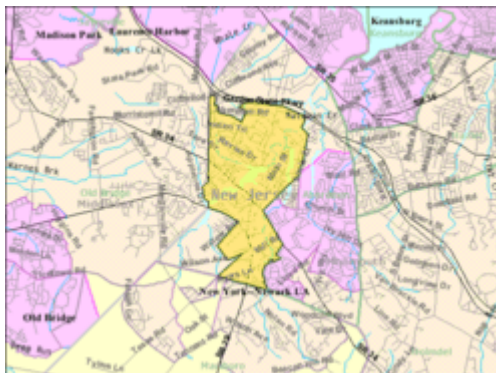


Borough of Matawan

The Borough of Matawan (the “Borough”) is located in Monmouth County (the “County”). With a land area of 472 miles, the County is located in central New Jersey and is bordered on the west by Mercer and Middlesex Counties, on the south by Burlington and Ocean Counties, on the east by 27 miles of Atlantic Ocean Beachfront and on the north by 26 miles of Raritan and Sandy Hook Bay Shorelines. The County consists of fifty-three (53) municipalities, whose populations range from 224 to 67,106 (2020 Census). Monmouth County has a population of 630,380 people and has a county median household income of (\$102,870) as compared to the Statewide median income (\$96,346) and population of 9,288,994.



The Borough is 2.4 square miles in size and informally divided into several neighborhoods largely defined by its two lakes, Lefferts and Matawan, and two major highways that bisect the Borough, Routes 79 and 34. The Borough borders Aberdeen, Marlboro and Old Bridge Townships. The Matawan-Aberdeen station serves most of western Monmouth County, offering a direct line to New York City, with commuting times ranging from 59 to 70 minutes. Matawan is also just off Exit 117 of the Garden State Parkway, which – traffic depending – gets you into the city in 50 to 60 minutes. New Jersey Transit’s 133 Line provides bus service to Port Authority.



The Borough is a historic community originally inhabited by the Lenape Native Americans and later turned into a community by Dutch and Scotch Irish settlers. It is the home to the Burrowes Mansion which was built in 1723 and was the site of a skirmish between the Patriots and the British during the Revolutionary War.

This close-knit suburban community is a part of the New Jersey Transit Village Initiative and has a population of 9,704 and approximately 3,716 households. The Median Household Income is \$122,026.



Financial Capacity Review

The Borough of Matawan has a property assessment tax base of \$1,597,673,016. Under New Jersey law the Borough borrowing limit is 3% of the average assessed valuations for the last three years, in this case the borrowing limit would be \$44,599,925. As of 12/31/2024, the Borough has \$30,530,198.35 in outstanding net indebtedness (2.054% of tax base) and therefore has \$14,069,726 in remaining debt capacity. The City's 2025 budget was \$15,861,925.06.

The water and sewer utility budget was \$6,731,449 in the 2025 adopted budget. Based upon the engineering reports from Remington & Vernick Engineers ("RVE") the water and sewer systems are in need of approximately \$36 million in capital improvements over the next 10 years.

Current system debt service is around \$1.5 million. The expectation is that the municipality will borrow for the needed capital improvements utilizing the New Jersey Infrastructure Bank (the "NJIB") and benefiting from the below market costs of funds associated with the NJIB programs. Under these assumptions, each \$1 million of additional debt would result in an additional expense of new annual debt service equal to approximately \$55,000, this would amount to approximately \$2 million in additional cost to ratepayers by the 10th year of the capital improvement program. Total debt service is likely to increase by over 125% from 2022.

<u>Year</u>	<u>Water</u>	<u>Sewer</u>	<u>Total</u>	<u>New Debt Service</u>	<u>Cumulative Debt Service</u>
1	\$ 4,711,300	\$ 3,204,000	\$ 7,915,300	\$429,610	\$429,610
2	\$ 3,081,760	\$ 3,375,310	\$ 6,457,070	\$350,463	\$780,074
3	\$ 2,271,150	\$ 154,500	\$ 2,425,650	\$131,654	\$911,728
4	\$ 4,441,875	\$ 2,884,000	\$ 7,325,875	\$397,619	\$1,309,347
5	\$ 1,722,418	\$ 731,300	\$ 2,453,718	\$133,178	\$1,442,524
6	\$ 1,038,270	\$ 159,000	\$ 1,197,270	\$64,983	\$1,507,507
7	\$ -	\$ 3,585,450	\$ 3,585,450	\$194,604	\$1,702,111
8	\$ 243,800	\$ 1,590,000	\$ 1,833,800	\$99,531	\$1,801,642
9	\$ 1,950,400	\$ 455,800	\$ 2,406,200	\$130,599	\$1,932,241
10	\$ 243,800	\$ 159,000	\$ 402,800	\$21,862	\$1,954,103
Total	\$ 19,704,773	\$ 16,298,360	\$ 36,003,133	\$ 1,954,103	\$ 13,770,887



The water and sewer utility are a part of the Borough budget and expected to be self-supporting. In recent years, the rate payers faced significant rate increases due to a lack of historical capital investment in the system. Rates have steadily increased since 2020 and are expected to continue to rise through 2028 to support necessary system improvements. The quarterly increase for a ratepayer using 200 gallons has been approximately \$194.



Industry Overview

Over the past decades, there have been many efforts in the State of New Jersey and nationally to use public/private partnership models to convert governmentally owned water and sewer utilities to privately owned (or leased) and operated status.

Nationwide it is estimated that 80% to 85% of all water and sewer utilities are governmentally owned and operated. In New Jersey there is a larger concentration of private water utilities than in most of the country and they are regulated by the NJ Board of Public Utilities ("BPU"). BPU regulates many facets of these private utilities but with a focus on water/sewer rate justification based upon costs of service, costs of capital and required equity returns. The four major private water/sewer utilities in New Jersey are:

- Veolia Water
- New Jersey American Water
- Middlesex Water
- Aqua Water

New Jersey has enacted several laws which permit private water companies to acquire, operate or lease public water/sewer utilities. In the 1990's several public water systems were the subject of operator/concession (effectively lease) agreements for terms of up to 40 years, these included:

- Jersey City
- Hoboken
- North Brunswick
- Rahway
- Perth Amboy
- Harrison
- Camden

In 2011, the first water/sewer public private partnership in over 2 decades was undertaken by the City of Bayonne through the use of the concession approach. After a competitive process, the city utilizing the same law that the earlier 1990's deals were based on, entering into a 40-year agreement with a partnership formed by Suez Water and KKR, the Wall Street leveraged buyout firm. Under the agreement the partnership paid Bayonne \$150 million and agreed to a rate setting model that was expected to produce annual rate increases in the 3.5% to 4% range on average. This transaction provided insight into what factors were needed to make a successful transaction for both the public and private sectors. Although this transaction was not a pure sale, the



economics of a 40-year concession are indicative of a sale value and therefore are considered in our analysis.

Subsequently, New Jersey enacted a law that allowed private utilities to directly acquire public water and sewer systems with voter approval in a referendum. The first transaction using this approach was undertaken by Haddonfield and purchased by New Jersey American Water (“NJAW”). The Town of Haddonfield in 2015 agreed to sell its water and sewer systems to NJAW for a price of \$28,675,000. NJAW agreed to limit rate increases during the first 10 years to three years of zero increases, then 2 years at 3% increases but was free to increase rates beyond that after the fifth anniversary when Haddonfield would be folded into its overall New Jersey regulated utility model.

In 2015, New Jersey passed the Water Infrastructure Protection Act, Act, N.J.S.A. 58:30-1 et seq., (“WIPA”). It authorizes certain owners of water or wastewater systems to enter a long-term lease contract or sell their water or wastewater assets to a capable private or public entity, without a referendum, if Emergent Conditions exist. In order to qualify for WIPA consideration, an owner must demonstrate the existence of at least one of the five Emergent Conditions specified by the Act. Importantly in WIPA law a regulated utility buyer will be allowed to recognize the actual purchase price as the regulatory cost basis for NJBPU purposes. Under the referendum law the price recognized for regulatory purposes by NJBPU will be based upon the hard asset values purchased. A number of systems have completed the process: Long Hill (referendum), Egg Harbor City (WIPA), Allendale(referendum), Bound Brook(referendum), West Milford(referendum), Salem City(WIPA) and South Orange(referendum).

In 2018, West Milford, a community of 26,000, sold its water and sewer systems to SUEZ (now Veolia) for a price of \$12,600,000 plus a commitment to invest \$55 million over 5-10 years into system infrastructure. Rates had an initial 3-year rate freeze and then are folded into the NJBPU rate setting model for the Suez system.

In 2020, Long Hill, a community of 8,702, sold its sewer system to NJAW for a price of \$12,700,000 plus a commitment to invest \$6 million the first 5 years into system infrastructure. Rates had an initial 2-year rate freeze and maximum 3% increase for an additional 3 years before folding rates into the NJBPU rate setting model for the NJAW system.

In 2021, Egg Harbor City, a community of only 4,200 people, sold its water and sewer systems to NJAW for a price of \$21,800,000 plus a commitment to invest \$14 million over 10 years into the system infrastructure. Rates had an initial 5% decrease and then are folded into the NJBPU rate setting model for the NJAW system.

In 2021, Bound Brook, a community of 10,254 people, sold its sewer collection system to NJAW for a price of \$5,000,000 plus a commitment to invest \$11 million over 10 years into the system infrastructure. Rates have an initial 2-year freeze and then 3% average



for the following 3 years before being folded into the NJBPU rate setting model for the NJAW system.

In 2021, Allendale, a community of 6,734 people, sold its water system to Suez (now Veolia) for a price of \$18,000,000 plus a commitment to invest \$16.88 million over 10 years into the system infrastructure. Rates have three 5% increase over a 10-year period after which they will be folded into the NJBPU rate setting model for the Veolia system.

In 2022, Somerville, a community of 12,139 people, voted to sell its sewer system and NJAW was the winning bidder with a price of \$7,000,000 plus a commitment to invest \$9,500,000 over 10 years into system infrastructure. Rates are frozen for two years. From years 3 to 6 rates will increase 3% and for years 7 to 9 rates will increase 4% after which the rates will be folded into the NJBPU rate setting model for the NJAW system. The sale closed in 2023.

Most recent transactions:

In June of 2024, the Borough of Hopewell received approval from the New Jersey Department of Environmental Protection (“NJDEP”) approving the Emergent Conditions Certification under WIPA enabling the sale of its water system to a capable private entity or public entity under WIPA. New Jersey American Water (“NJAW”) agreed to pay \$6.4 million to the Borough and invest \$7 million in capital improvement expenditure within five years of closing. They are committed to replace all lead service lines by 2031. The sale will be voted on in a referendum in November of 2025.

In November of 2024, the Village of South Orange, a community of 18,484, passed a referendum to sell the water system to NJAW at a price of \$19.7 million. Rates are to remain frozen for two years, increase by 3% in years 3-5, and converge with NJAW rates starting in year 6. The deal is expected to close in 2025.

In May 2025, Pennsylvania American Water (“PAW”) purchased the Audobon Water Company in Lower Providence Township Pennsylvania for \$8 million. The system serves approximately 2,900 customers. PAW plans to invest \$21.5 million in system improvements over five years.

In June of 2025 Dunellen received one bid for its sewer system from NJAW. The system includes 3 pump stations and 87,000 linear feet of gravity sewer mains. It includes 2,274 connections. Total system revenue is slightly less than \$1.5 million. NJAW committed to pay \$5.5 million at closing and anticipates a capital investment program of \$9 million in the first five years of owning the system.

Nationwide there has been limited activity on the concession model, however there



were successful transactions implemented in Rialto, California and Middleton, Pennsylvania. Additionally, a public/private partnership procurement was done in Allentown, Pennsylvania on a competitive basis and the local county utility authority made the best offer. A number of systems have also been sold in Pennsylvania and other states.

American Water, the parent of NJAW, has adopted the acquisition approach as its favored model, rather than the concession approach. On a national basis, they report at least 25 recent acquisitions of small systems over 7-states. The acquisitions included over 65,000 water or sewer connections for an average of over 2,500 customers per acquisition.



Facilities Description

The combined Water/Sewer Utility is owned and operated by the Borough of Matawan and consists of the following elements:

- A- Total Billed Sewer Customers was 2,857 in 2024, more than 97% of these customers were residential. Total Billed Water Customers was 2,926 in 2023, more than 97% of these customers were residential. Approximately 8% of the total revenue comes from commercial users. The municipality expects growth of approximately 300 customers as a result of redevelopment over the next 3 to 5 years.
- B- One Active Water Treatment Plant(WTP)
- C- One 1.0 Million Gallon Standpipe
- D- One 1.0 Million Gallon Standpipe
- E- Well No. 3 rated for a 800 GPD capacity
- F- Well No. 4 rated for a 800 GPD capacity
- G- One (1) Interconnection with New Jersey American Water
- H- Two (2) Emergency Interconnections with Township of Aberdeen
- I- Estimated 36.6 miles of water main, ranging in size from 4" to 16" in diameter
- J- 933 Valves, ranging 4" to 16" in diameter
- K- 348 Fire Hydrants
- L- Ten(10) Sanitary Sewer Lift Stations
- M- Estimated 35 miles of sanitary sewer main, ranging in size from 2" to 36" in diameter
- N- 801 Sanitary manholes



O- Estimated 2,886 service laterals

RVE reported the infrastructure to be operational and that the utility personnel have done well in maintaining the infrastructure in a clean and orderly manner. However, there is projected to be a need for a major capital program which will require a total investment approaching \$36 million over time.



Financial Summary of Current Operations

Financial results and general information for the system are based upon information provided by the Borough, including budgets, audited financial statements, billing summaries and engineering reports. The financial results herein are intended to provide a picture of the Facility's current financial position and provide a basis for analyzing options for the City, including the potential sale of the Facility.

Rate Structure

The following is a summary of the 2025 Water and Sewer rate structure:

Water Rates

Minimum Quarterly Rate	\$ 42.79
Water consumption less than 4,000 cubic feet	\$ 74.17/cu ft
Water consumption greater than 4,000 cubic feet and less than 7,500 cubic feet	\$ 81.29/cu ft
Water consumption greater than 7,500 cubic feet	\$ 85.58/cu ft

Sewer Rates

Non-commercial units	\$ 203.96
Each non-commercial units of a multi-unit building or structure	\$ 203.96
Each Classroom of a public or private school	\$ 203.96
Commercial and industrial establishments at greater of \$203.96 or 149% of quarterly water biill	

The existing rate ordinances include additional charges and escalation through 2028. The rates are attached as Exhibit A.



Operating Costs

A private operator would be expected to have significantly lower operating expenses associated with economies of scale and procurement and regulatory requirements. This analysis projects a greater than 20% reduction in operating costs for the water and sewer system which would allow the private owner to achieve higher net operating income and therefore support a higher value than reflective of the historical operating costs of the Borough. The table below compares operating cost under Borough ownership:

<u>Operating Costs</u>	<u>Borough Run</u>	<u>Privately Run</u>
Salaries & Wages	\$ 1,195,000	\$ 700,000
Pension/Health	\$ 740,000	\$ 280,000
Other Expenses		
Utilities	\$ 65,000	\$ 65,000
Other Expenses	\$ 1,455,301	\$ 1,200,000
Repairs	\$ 333,166	\$ 275,000
Sewer Treatment	\$ 1,225,000	\$ 1,225,000
Water Purchases	\$ 460,000	\$ 460,000
Costs	\$ 5,473,467	\$ 4,205,000



Valuation Analysis

Typically, there are three components to valuation:

- 1- Income Approach
- 2- Market Comparable Approach
- 3- Cost Approach

Income Approach

Historical operating cost data based upon budget and audit filings are as follows:

	<u>2024</u>	<u>Audited 2023</u>
Salaries & Wages	\$ 998,820	\$ 857,625
Other Expenses	\$ 1,614,370	\$ 57,262
Acquisition of Water	\$ 361,160	\$ 66,000
Bayshore Regional Sewerage Authority	\$ 1,226,421	\$ -
Other Expenses	\$ 75,000	\$ 1,691,815
Capital Outlay	\$ 211,843	\$ 115,000
Bond Principal	\$ 678,000	\$ 499,681
Bond Interest	\$ 369,819	\$ 860,000
Water Treatment Loan Principal	\$ 350,126	\$ 238,000
Water Treatment Loan Interest	\$ 35,000	\$ -
Public Employees' Retirement System	\$ 59,277	\$ 440,000
Social Security (OASI)	\$ 76,733	\$ 1,176,275
Total	\$ 6,056,570	\$ 6,001,658
Net Cash	\$ 136,835	\$ 158,799

To convert net income to value, the industry typically utilizes a discounted cash flow analysis to convert future cash flows from the asset to the equivalent of today's (2025) dollars. This discounting is done using a risk adjusted weighted average cost of capital taking into account both the debt and equity returns required to finance the purchase price. In the case of water assets there are 2 distinct types of possible buyers each with different capital structures. A public utility buyer will be subject to regulation by NJBPU and both its return on equity and its leverage are controlled by NJBPU. Both NJAW and Veolia were restricted to approximately 55% leverage and a return on equity of 9.60%. The other type of buyer would be a single enterprise buyer such as the investment



partnership that bought Bayonne. A single enterprise buyer would not be subject to BPU regulation, and we would expect such a buyer to leverage at the 70% level and target equity returns between 12% and 15%. In both cases we have assumed that capital expenditures would be treated as pass through expense add-ons to rates.

For the purpose of this valuation, we have used the proposed rate increase restrictions and we have calculated the likely value using a 30-year cash flow projection for each of the two likely types of buyers and create a range of likely values based upon a weighted average cost of capital ("WACC") as a discount rate to determine the present value of the future cash flows.

When the discounting of the cash flows is applied to projected net income under private management for the water system it produces the following valuation results:

	Public Utility Buyer		Enterprise Buyer	
Net Income Year 1	\$	2,200,000	\$	2,200,000
WACC		8.00%		7.20%
Discounted Cash Flow	\$	38,580,193	\$	42,911,433
Value per Customer	\$	6,216.60	\$	6,914.51

Note: there are currently a total of 5,011 customers made up of 2,857 water customers and 2,930 sewer customers and an expectation of approximately 300 more of each in the next few years.

Market Comparable Approach

A second method of valuing the assets is to consider what price the marketplace has recently paid for water/sewer system acquisitions. The following pages show the results of a number of transactions in the region:



Sale 1

Seller/Lessee/Concessionee	Egg Harbor City, NJ
Population	4,243
Year	2021
Buyer/Lessor/Concessionaire	NJ American Water
Sale Price	\$ 21,800,000
Asset Type	water/sewer
Asset Miles	52
Customers/Connections	3,000
Prior Annual Revenue	\$ 2,079,000
Prior Annual Expense	\$ 1,048,000
Transaction Type	Sale-WIPA
CAPEX Commitment- 10 Year	\$ 14,000,000
Rate Regime	-5% then NJBPU



Sale 2

Seller/Lessee/Concessionee	Long Hill, NJ
Population	8,702
Year	2019
Buyer/Lessor/Concessionaire	NJ American Water
Sale Price	\$ 12,700,000
Asset Type	Sewer
Asset Miles	57
Customers/Connections	2,800
Prior Annual Revenue	\$ 2,204,800
Prior Annual Expense	\$ 1,295,000
Transaction Type	Sale - Referendum
CAPEX Commitment- 10 Year	\$ 6,000,000
Rate Regime	0% for 2 years/3% for 3 years then NJBPU



Sale 3

Seller/Lessee/Concessionee	Haddonfield , NJ
Population	11,593
Year	2015
Buyer/Lessor/Concessionaire	NJ American Water
Sale Price	\$ 28,675,000
Asset Type	water/sewer
Asset Miles	66
Customers/Connections	4,545
Prior Annual Revenue	\$ 3,677,000
Prior Annual Expense	\$ 1,634,000
Transaction Type	Sale - Referendum
CAPEX Commitment- 10 Year	\$ 16,000,000
Rate Regime	0%/0%/0% then 3%, then NJBPU; sewer 12.5% then 3.5%



Sale 4

Seller/Lessee/Concessionee	Middleton, Pa
Population	8,901
Year	2013
Buyer/Lessor/Concessionaire	SUEZ/KKR
Sale Price	\$ 43,000,000
Asset Type	water/sewer
Asset Miles	61
Customers/Connections	6,267
Prior Annual Revenue	\$ 4,530,000
Prior Annual Expense	\$ 1,676,000
Transaction Type	Concession
CAPEX Commitment- 10 Year	None
Rate Regime	4.50%



Sale 5

Seller/Lessee/Concessionee	Bayonne, NJ
Population	60,000
Year	2011
Buyer/Lessor/Concessionaire	SUEZ/KKR
Sale Price	\$ 150,000,000
Asset Type	water/sewer
Asset Miles	228
Customers/Connections	23,670
Prior Annual Revenue	\$ 20,600,000
Prior Annual Expense	\$ 10,000,000
Transaction Type	Concession
CAPEX Commitment- 10 Year	\$ 10,000,000
Rate Regime	8%/0%/0%/3.5-4%



Sale 6

Seller/Lessee/Concessionee	Bound Brook NJ
Population	10,254
Year	2022
Buyer/Lessor/Concessionaire	NJ American
Sale Price	\$ 5,000,000
Asset Type	Sewer
Asset Miles	25
Customers/Connections	3,000
Prior Annual Revenue	\$ 1,600,000
Prior Annual Expense	\$ 1,305,436
Transaction Type	Sale
CAPEX Commitment- 10 Year	\$ 11,000,000
Rate Regime	2 year freeze then 3 years less than 3%



Sale 7

Seller/Lessee/Concessionee	Allendale, NJ
Population	6,734
Year	2022
Buyer/Lessor/Concessionaire	Veolia/Suez
Sale Price	\$ 18,000,000
Asset Type	Water
Asset Miles	44
Customers/Connections	2,507
Prior Annual Revenue	\$ 2,000,727
Prior Annual Expense	\$ 1,625,409
Transaction Type	Sale
CAPEX Commitment- 10 Year	\$ 16,880,000
Rate Regime	3 5% bumps over 10 years



Sale 8

Seller/Lessee/Concessionee	Somerville
Population	12,139
Year	2022
Buyer/Lessor/Concessionaire	NJ American
Sale Price	\$ 7,000,000
Asset Type	Sewer
Asset Miles	35
Customers/Connections	3,812
Prior Annual Revenue	\$ 2,680,000
Prior Annual Expense	\$ 2,380,000
Transaction Type	Sale
CAPEX Commitment- 10 Year	\$ 9,500,000
Rate Regime	2 year freeze then 3% for 3 years then 4% for 2 years



Sale 9

Seller/Lessee/Concessionee	West Milford
Population	26,392
Year	2018
Buyer/Lessor/Concessionaire	SUEZ/Veolia
Sale Price	\$ 12,600,000
Asset Type	Water & Sewer
Asset Miles	300
Customers/Connections	1,760
Prior Annual Revenue	\$ 1,800,000
Prior Annual Expense	\$ 1,200,000
Transaction Type	Sale
CAPEX Commitment- 10 Year	\$ 55,000,000
Rate Regime	3 year rate freeze



Sale 10

Seller/Lessee/Concessionee	Salem
Population	5,297
Year	2024
Buyer/Lessor/Concessionaire	NJ American
Sale Price	\$ 18,000,000
Asset Type	Water/Sewer
Asset Miles	38
Customers/Connections	4,600
Prior Annual Revenue	\$ 2,600,000
Prior Annual Expense	\$ 3,775,000
Transaction Type	WIPA
CAPEX Commitment- 10 Year	\$ 50,000,000



Sale 11

Seller/Lessee/Concessionee	South Orange
Population	18,484
Year	2024
Buyer/Lessor/Concessionaire	NJ American
Sale Price	\$ 19,700,000
Asset Type	Water
Asset Miles	75
Customers/Connections	5,000
Prior Annual Revenue	\$ 5,670,000
Prior Annual Expense	\$ 5,240,000
Transaction Type	Sale
CAPEX Commitment- 10 Year	\$ 50,000,000
Rate Regime	2 year freeze, 3-5 at 3%, 6-15 tariff



Sale 12

Seller/Lessee/Concessionee	Hopewell
Population	1,894
Year	2025
Buyer/Lessor/Concessionaire	NJ American
Sale Price	\$ 6,400,000
Asset Type	Water
Asset Miles	10.1
Customers/Connections	850
Prior Annual Revenue	\$ 906,000
Prior Annual Expense	\$ 896,000
Transaction Type	WIPA
CAPEX Commitment- 5 Year	\$ 7,000,000
Other	replace all lead service by 2031
Rate Regime	Adjust to NJAW Rates



Sale 13

Seller/Lessee/Concessionee	Audobon Water
Population	1,894
Year	2025
Buyer/Lessor/Concessionaire	PA American
Sale Price	\$ 8,000,000
Asset Type	Water
Asset Miles	10.1
Customers/Connections	2,900
Prior Annual Revenue	
Prior Annual Expense	
Transaction Type	ACT 12
CAPEX Commitment- 5 Year	\$ 21,500,000
Rate Regime	No change



Sale 14

Seller/Lessee/Concessionee	Dunellen
Population	7,637
Year	2025
Buyer/Lessor/Concessionaire	NJ American
Sale Price	\$ 5,500,000
Asset Type	Wastewater
Asset Miles	16.5
Customers/Connections	2,274
Prior Annual Revenue	\$ 1,440,365
Prior Annual Expense	\$ 1,127,380
Transaction Type	Public Utilities Law
CAPEX Commitment- 5 Year	\$ 9,000,000
Rate Regime	10% yr 1, 0% yr 2, 3% yr 3-7



These sales have a wide range of metrics that can be applied to the analysis of the Matawan water/sewer system as follows:

Comparable Sales Metric		Matawan	
Price per customer/connection	\$ 5,100	6,083	\$ 31,023,300
Price per mile	\$ 314,266	73.2	\$ 23,004,300
Gross Revenue Multiplier	6.76	\$ 5,843,009	\$ 39,485,143
Average Result			\$ 31,170,914

The comparable sales analysis displays a wide range of values from \$25 to \$45 million, our interpretation of this data leads us to believe the average value is the most likely value under this method. Recent sales and bids have been shown high volatility from below \$3,000 per customer to over \$7,500 per customer with water sales at the higher end and sewer sales at the lower end. For the purpose of this approach, we attempted to appropriately account for these difference and expect a sales price around \$5,100 per customer.

* *The price assumes an assumption there will be an approximately 300 additional connections in the system in the next few years.*

Cost Approach to Value

The Cost Approach is utilized by estimating the replacement cost of the assets and then deducting depreciation based upon the useful life of the assets and the years in service. In the case of the subject assets there are three categories:

- The pipes that distribute the water to the customers
- The pumps and other equipment needed to transmit the water to and within the pipes.
- The water wells which are the source of the water
- The sewer mains
- The lift stations for the sewer system
- The sewer treatment plant and related assets



In considering these assets it is important to realize that the valuation of the assets as an integrated system is different than the value of the underlying parts.

The assets are valued as shown in the table below:

Water System	Replacement Costs	Depreciation	Net Value
Water Facilities	\$ 12,572,100	\$ 5,916,417	\$ 6,655,683
Water Distribution			
Water Main	\$ 47,599,505	\$ 26,920,654	\$ 20,678,851
Water Valves	\$ 2,367,500	\$ 1,330,550	\$ 1,036,950
Fire Hydrants	\$ 2,408,000	\$ 747,110	\$ 1,660,890
Soft Costs	\$ 14,288,363	\$ 7,681,241	\$ 6,607,122
Total	\$ 66,663,368	\$ 36,679,555	\$ 29,983,813
Sanitary System			
Sanitary Facilities	\$ 8,996,168	\$ 6,601,954	\$ 2,394,213
Sanitary Convenience			
Sanitary Main	\$ 45,488,940	\$ 27,767,071	\$ 17,721,869
Manholes	\$ 4,005,000	\$ 2,258,100	\$ 1,746,900
Soft Costs	\$ 12,867,824	\$ 8,057,968	\$ 4,809,856
Total	\$ 71,357,931	\$ 44,685,093	\$ 26,672,838
Combined	\$ 150,593,399	\$ 87,281,066	\$ 63,312,333

Total Facilities Cost Approach valuation is indicated as \$63,000,000.



Summary of Valuation Findings

Utilizing the different approaches to value provides a range of potential values for the utility assets of the Borough of between \$31 million and \$63 million as shown below:

Valuation

Income Approach	\$ 42,589,953
Comparable Sales Approach	\$ 31,170,914
Replacement Cost	\$ 63,322,369
Average	\$ 45,694,412

In summary, our estimate of value is usually heavily weighted to the comparable sales approach value. In the current marketplace, particularly in smaller deals, public utility buyers have been the most active purchasers. The system has hard asset in the form of wells and treatment facilities that enhance the value as reflected in the high replacement cost. Additionally, there is revenue is materially higher than the recently sold systems. Our conclusion of value for the Matawan Water System Assets is a weighted average approach of the first 2 methods (income approach and the comparable sales approach), as follows:

Final Estimate of Asset Value	\$35,000,000
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Exhibit A



Water and Sewer Rate

Water Rate

The owner of any premises upon connection of the each unit to the water system of the Borough of Matawan shall pay to the Borough of Matawan for the use of such water services a quarterly water fee as follows:

Beginning in 2025 the rates will be effective on the 1st of January of each year as per the schedule below:

- a. The minimum quarterly rate will be billed for each account connected to the Matawan Borough Water System as:

2025	2026	2027	2028
\$42.79	\$45.46	\$48.30	\$51.33

- b. An additional charge per quarter will be added based on the following formula:

1. All water consumption less than 4,000 cubic feet shall be billed per 1,000 cubic feet at:

2025	2026	2027	2028
\$74.17	\$78.80	\$83.73	\$88.96

2. All water consumption greater than 4,000 cubic feet but less than 7,500 cubic feet shall be billed per 1,000 cubic feet at:

2025	2026	2027	2028
\$81.29	\$86.37	\$91.77	\$97.51

3. All water consumption greater than 7,500 shall be billed per 1,000 cubic feet at:

2025	2026	2027	2028
\$85.58	\$90.93	\$96.61	\$102.65



Sewer Rate

The owner of any premises upon connection of each unit thereof with the sewer system of the Borough shall pay to the Borough for the use of such sewer services a quarterly fee as follows:

Beginning in 2025 the fee will be effective on the 1st of January of each year as per the schedule below:

a. Premises located within the Borough of Matawan:

1. Each non-commercial unit:

2025	2026	2027	2028
\$203.96	\$216.70	\$230.25	\$244.64

2. Each non-commercial unit of a multi-unit building or structure:

2025	2026	2027	2028
\$203.96	\$216.70	\$230.25	\$244.64

3. Each Classroom of a public or private school:

2025	2026	2027	2028
\$203.96	\$216.70	\$230.25	\$244.64

4. Commercial and industrial establishments 149% of the quarterly water bill thereof except that such quarterly sewer charge shall in no event be less than:

2025	2026	2027	2028
\$203.96	\$216.70	\$230.25	\$244.64

b. All premises located outside the Borough of Matawan shall be charged a sewer service amount equal to the charge to the Borough residents.



Exhibit B



Water & Sanitary Valuation

PREPARED FOR

BOROUGH OF MATAWAN

201 Broad Street
Matawan, NJ 07747

PREPARED BY

REMINGTON & VERNICK ENGINEERS

2059 Springdale Road
Cherry Hill, New Jersey 08003
(856) 795-9595

July 2025

BOROUGH OF SPOTSWOOD

WATER & SANITARY VALUATION

July 2025

The Borough of Matawan (Borough) is located in Monmouth County, New Jersey. It covers approximately 2.4 square miles of area and has approximately 9,566 residents (as per 2020 US Census; www.census.gov). The Borough owns and operates their own potable water supply, water treatment plant, water distribution system, a series of sanitary sewer lift stations, and a sanitary sewer conveyance system. The water services and sanitary laterals are owned by the residents from the house to the main in the street. There are 2,886 water service connections and 2,886 sanitary service connections, for a total of 5,772 connections.

The Borough retained Remington & Vernick Engineers to complete a valuation of the system based upon its current condition. The components of both the water and sanitary utility were identified based upon the following:

- Facility tours to assess the equipment installed and in place
- Review of the Borough GIS mapping
- Interview of utility personnel and operator
- Review of Water Allocation Permit and associated Staff Report

Basis of Valuation

Upon completion of the inventory and review of historic information, the replacement cost was determined for each item of the system. The replacement cost was based upon our experience and current industry standards and bid tabulation for the area. A lifespan or useful life was assigned to each type of component. Where existing system information was not provided, best judgment was utilized to assign both infrastructure age and replacement costs.

The average lives chosen were based on our experience with previous valuations. In addition, lifespans were established based upon our 1) experience with other utility systems, 2) lifespans approved by other studies for regulatory review and 3) condition of the assets at the time of our facility tours.

Once the above information was established, the value of the system was developed utilizing both the Original Cost Less Depreciation (OCLD) and the Replacement Cost New Less Depreciation (RCNLD) methodologies. The RCNLD was calculated by subtracting the depreciation from the Replacement Cost New amount. To establish the OCLD, trend factors were developed to determine the original cost. We utilized indices published by Handy-Whitman, in Bulletin No. 194. These trend factors were applied to the Replacement Cost and Depreciation.

We also felt that it was necessary to look at the current market value for the sale of utility systems and factor this information into the calculated valuation (OCLD & RCNLD). Accordingly, we looked at systems that sold recently and factored in their similarity to the Borough of Matawan. The utilities which were utilized as a basis of comparison per connection were:

- Borough of Haddonfield
- Longhill Township
- City of Wildwood

Conclusions

Based upon the weighted average of the OCLD, RCNLD and Market Value, we anticipate that the value of the water and sanitary system infrastructure is approximately \$39.3 million. It should be noted that the fair market value of the existing property has not been included in the system value. Accordingly, it is anticipated that the value would be greater than indicated.

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

CONSTRUCTION COSTS						
	ORIGINAL COSTS	DEPRECIATION	OCLD	REPLACEMENT COSTS	DEPRECIATION	RCNLD
WATER SYSTEM						
WATER FACILIITES	\$5,027,933.58	\$1,938,093.96	\$3,089,839.62	\$12,572,100.00	\$5,916,471.36	\$6,655,628.64
WATER DISTRIBUTION						
WATER MAIN	\$7,096,309.83	\$2,477,919.03	\$4,618,390.80	\$47,599,505.00	\$26,920,654.40	\$20,678,850.60
WATER VALVES	\$342,957.23	\$126,826.27	\$216,130.96	\$2,367,500.00	\$1,330,550.00	\$1,036,950.00
FIRE HYDRANTS	\$806,430.12	\$167,661.51	\$638,768.61	\$2,408,000.00	\$747,110.00	\$1,660,890.00
TOTAL WATER SYSTEM COSTS	\$13,273,630.76	\$4,710,500.77	\$8,563,129.99	\$64,947,105.00	\$34,914,785.76	\$30,032,319.24
SANITARY SYSTEM						
SANITARY FACILITIES	\$3,256,518.06	\$2,278,076.77	\$863,897.48	\$8,996,167.51	\$6,601,954.46	\$2,394,213.06
SANITARY CONVEYANCE						
SANITARY MAIN	\$4,379,113.48	\$2,267,793.11	\$2,111,320.36	\$45,488,940.00	\$27,767,071.20	\$17,721,868.80
MANHOLES	\$581,783.64	\$213,183.97	\$368,599.67	\$4,005,000.00	\$2,258,100.00	\$1,746,900.00
TOTAL SANITARY SYSTEM COSTS	\$8,217,415.18	\$4,759,053.85	\$3,343,817.52	\$58,490,107.51	\$36,627,125.66	\$21,862,981.86
TOTAL CONSTRUCTION COSTS	\$21,491,045.94	\$9,469,554.62	\$11,906,947.51	\$123,437,212.51	\$71,541,911.42	\$51,895,301.09
SOFT COSTS						
DESIGN & PERMITTING ENGINEERING (12%)	\$2,578,925.51	\$1,136,346.55	\$1,428,833.70	\$14,812,465.50	\$8,585,029.37	\$6,227,436.13
CONTRACT ADMINISTRATION (4%)	\$859,641.84	\$378,782.18	\$476,277.90	\$4,937,488.50	\$2,861,676.46	\$2,075,812.04
CONSTRUCTION OVERSIGHT (6%)	\$1,289,462.76	\$568,173.28	\$714,416.85	\$7,406,232.75	\$4,292,514.69	\$3,113,718.07
TOTAL SOFT COSTS	\$4,728,030.11	\$2,083,302.02	\$2,619,528.45	\$27,156,186.75	\$15,739,220.51	\$11,416,966.24
OVERALL WATER & SEWER SYSTEM COSTS	\$26,219,076.05	\$11,552,856.63	\$14,526,475.97	\$150,593,399.27	\$87,281,131.93	\$63,312,267.33

WEIGHTED AVERAGE				
\$40,945,000.00	0.2	\$8,189,000.00	Market Analysis	
\$63,312,267.33	0.4	\$25,324,906.93	Cost Analysis - RCNLD	
\$14,526,475.97	0.4	\$5,810,590.39	Cost Analysis - OCLD	
		\$39,324,497.32		

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

WATER SYSTEM FACILITIES

YEAR OF PURCHASE	ITEM	AGE (YEARS)	ORIGINAL COST	LIFE	DEPRECIATION FACTOR	DEPRECIATION COST	OCLD	original cost factor	REPLACEMENT COST	ACCUMULATED DEPRECIATION	RCNLD
	WELL NO. 3 (800 gpm)										
1956	WELL NO. 3 - WELL AND PIPING	66	\$33,865.03	100	0.66	\$22,350.92	\$11,514.11	0.06	\$600,000.00	\$396,000.00	\$204,000.00
1985	WELL NO. 3 - REDEVELOPMENT AND REPAIR	40	\$47,300.00	50	0.80	\$37,840.00	\$9,460.00	0.27	\$75,000.00	\$60,000.00	\$15,000.00
2012	WELL NO. 3 ELECTRICAL & CONTROLS	13	\$53,250.00	50	0.26	\$13,845.00	\$39,405.00	0.71	\$75,000.00	\$19,500.00	\$55,500.00
2024	WELL NO. 3 PUMP	1	\$72,831.98	20	0.05	\$3,641.60	\$69,190.38	0.97	\$75,000.00	\$3,750.00	\$71,250.00
	WELL NO. 4 (800 gpm)										
1995	WELL HOUSE	30	\$38,773.01	99	0.30	\$11,749.40	\$27,023.61	0.39	\$100,000.00	\$30,303.03	\$69,696.97
1967	WELL NO. 4 WELL AND PIPING	55	\$52,392.64	100	0.55	\$28,815.95	\$23,576.69	0.07	\$700,000.00	\$385,000.00	\$315,000.00
1995	WELL NO. 4 - REDEVELOPMENT AND REPAIR	27	\$29,079.75	50	0.54	\$15,703.07	\$13,376.69	0.39	\$75,000.00	\$40,500.00	\$34,500.00
1995	WELL NO. 4 - ELECTRICAL & CONTROLS	27	\$4,525.60	50	0.54	\$2,443.82	\$2,081.77	0.30	\$15,000.00	\$8,100.00	\$6,900.00
2024	WELL NO. 4- PUMP	1	\$25,853.24	20	1.00	\$25,853.24	\$0.00	0.34	\$75,000.00	\$75,000.00	\$0.00
	WATER TREATMENT PLANT										
1956	BUILDING STRUCTURE	66	\$56,441.72	100	0.66	\$37,251.53	\$19,190.18	0.06	\$1,000,000.00	\$660,000.00	\$340,000.00
2012	PIPING AND VALVES	10	\$530,391.12	100	0.10	\$53,039.11	\$477,352.01	0.71	\$750,000.00	\$75,000.00	\$675,000.00
2012	AERATION	10	\$10,607.82	20	0.50	\$5,303.91	\$5,303.91	0.71	\$15,000.00	\$7,500.00	\$7,500.00
1956	CLARIFIER	66	\$353,594.08	50	1.00	\$353,594.08	\$0.00	0.71	\$500,000.00	\$500,000.00	\$0.00
2012	GENERATOR	10	\$530,391.12	50	0.20	\$106,078.22	\$424,312.90	0.71	\$750,000.00	\$150,000.00	\$600,000.00
2012	ELECTRICAL AND CONTROLS	10	\$530,391.12	50	0.20	\$106,078.22	\$424,312.90	0.71	\$750,000.00	\$150,000.00	\$600,000.00
2012	BACKWASH PUMPS & SYSTEM	10	\$53,039.11	20	0.50	\$26,519.56	\$26,519.56	0.71	\$75,000.00	\$37,500.00	\$37,500.00
2012	BLOWERS	10	\$53,039.11	20	0.50	\$26,519.56	\$26,519.56	0.71	\$75,000.00	\$37,500.00	\$37,500.00
2012	FINISHED WATER/HIGH SERVICE PUMPS & SYSTEM	10	\$141,437.63	20	0.50	\$70,718.82	\$70,718.82	0.71	\$200,000.00	\$100,000.00	\$100,000.00
2012	FILTER TANKS (3)	10	\$530,391.12	50	0.20	\$106,078.22	\$424,312.90	0.71	\$750,000.00	\$150,000.00	\$600,000.00
2012	FILTER MEDIA	10	\$141,437.63	15	0.67	\$94,291.75	\$47,145.88	0.71	\$200,000.00	\$133,333.33	\$66,666.67
2012	DRAIN DOWN SYSTEM	10	\$21,215.64	20	0.50	\$10,607.82	\$10,607.82	0.71	\$30,000.00	\$15,000.00	\$15,000.00
2012	ALUM FEED SYSTEM	10	\$35,359.41	20	0.50	\$17,679.70	\$17,679.70	0.71	\$50,000.00	\$25,000.00	\$25,000.00
2012	SODIUM HYPOCHLORITE FEED SYSTEM	10	\$42,431.29	20	0.50	\$21,215.64	\$21,215.64	0.71	\$60,000.00	\$30,000.00	\$30,000.00
2012	ZINC ORTHOPHOSPHATE FEED SYSTEM	10	\$35,359.41	20	0.50	\$17,679.70	\$17,679.70	0.71	\$50,000.00	\$25,000.00	\$25,000.00
2012	LIME FEED SYSTEM	10	\$70,718.82	20	0.50	\$35,359.41	\$35,359.41	0.71	\$100,000.00	\$50,000.00	\$50,000.00
	MISCELLANEOUS										
1972	MIDDLESEX ROAD STANDPIPE (1.2 MG)	50	\$122,854.56	100	0.50	\$61,427.28	\$61,427.28	0.07	\$1,700,000.00	\$850,000.00	\$850,000.00
1972	RYERS LANE STANDPIPE (1 MG)	50	\$87,804.88	100	0.50	\$43,902.44	\$43,902.44	0.07	\$1,200,000.00	\$600,000.00	\$600,000.00
1990	NJ AMERICAN WATER INTERCONNECTION (12")	32	\$52,120.74	50	0.64	\$33,357.28	\$18,763.47	0.28	\$185,000.00	\$118,400.00	\$66,600.00
2001	ABERDEEN TOWNSHIP INTERCONNECTION (6")	21	\$44,953.56	50	0.42	\$18,880.50	\$26,073.07	0.37	\$120,000.00	\$50,400.00	\$69,600.00
2001	ABERDEEN TOWNSHIP INTERCONNECTION (6")	21	\$44,953.56	50	0.42	\$18,880.50	\$26,073.07	0.37	\$120,000.00	\$50,400.00	\$69,600.00
1997	CUSTOMER WATER METERS- OLD (810)	25	\$183,065.53	20	1.00	\$183,065.53	\$0.00	0.32	\$567,000.00	\$567,000.00	\$0.00
2015	CUSTOMER WATER METERS- NEW (2093)	7	\$928,063.34	20	0.35	\$324,822.17	\$603,241.17	0.63	\$1,465,100.00	\$512,785.00	\$952,315.00
2021	VALVE EXERCISING MACHINE	1	\$70,000.00	20	0.05	\$3,500.00	\$66,500.00	1.00	\$70,000.00	\$3,500.00	\$66,500.00
TOTALS:			\$5,027,933.58			\$1,938,093.96	\$3,089,839.62		\$12,572,100.00	\$5,916,471.36	\$6,655,628.64

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

WATER DISTRIBUTION SYSTEM

WATER MAIN												
YEAR OF PURCHASE	ITEM	LINEAR FEET OF PIPE	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COSTS	DEPRECIATION	RCNLD
2020	16" DIP	60	2	100	\$269.63	\$16,177.61	0.02	\$5.39	\$15,854.05	\$17,400.00	\$348.00	\$17,052.00
2010	16" DIP	60	12	100	\$198.32	\$11,899.23	0.12	\$23.80	\$10,471.32	\$17,400.00	\$2,088.00	\$15,312.00
2000	16" DIP	60	22	100	\$118.90	\$7,134.00	0.22	\$26.16	\$5,564.52	\$17,400.00	\$3,828.00	\$13,572.00
1990	16" DIP	60	32	100	\$95.70	\$5,742.00	0.32	\$30.62	\$3,904.56	\$17,400.00	\$5,568.00	\$11,832.00
1980	16" DIP	259	42	100	\$63.80	\$16,524.20	0.42	\$26.80	\$9,584.04	\$75,110.00	\$31,546.20	\$43,563.80
1970	16" DIP	339	52	100	\$29.92	\$10,143.95	0.52	\$15.56	\$4,869.10	\$98,310.00	\$51,121.20	\$47,188.80
1960	16" DIP	579	62	100	\$21.75	\$12,593.25	0.62	\$13.49	\$4,785.44	\$167,910.00	\$104,104.20	\$63,805.80
1950	16" DIP	180	72	100	\$13.63	\$2,453.40	0.72	\$9.81	\$686.95	\$52,200.00	\$37,584.00	\$14,616.00
2020	12"DIP	419	2	100	\$255.68	\$107,130.16	0.02	\$5.11	\$104,987.56	\$115,225.00	\$2,304.50	\$112,920.50
2010	12"DIP	419	12	100	\$188.06	\$78,798.22	0.12	\$22.57	\$69,342.43	\$115,225.00	\$13,827.00	\$101,398.00
2000	12"DIP	419	22	100	\$112.75	\$47,242.25	0.22	\$24.81	\$36,848.96	\$115,225.00	\$25,349.50	\$89,875.50
1990	12"DIP	419	32	100	\$90.75	\$38,024.25	0.32	\$29.04	\$25,856.49	\$115,225.00	\$36,872.00	\$78,353.00
1980	12"DIP	1,814	42	100	\$60.50	\$109,747.00	0.42	\$25.41	\$63,653.26	\$498,850.00	\$209,517.00	\$289,333.00
1970	12"DIP	2,372	52	100	\$28.38	\$67,306.48	0.52	\$14.76	\$32,307.11	\$652,300.00	\$339,196.00	\$313,104.00
1960	12"DIP	4,046	62	100	\$20.63	\$83,448.75	0.62	\$12.79	\$31,710.53	\$1,112,650.00	\$689,843.00	\$422,807.00
1950	12"DIP	1,256	72	100	\$12.93	\$16,233.80	0.72	\$9.31	\$4,545.46	\$345,400.00	\$248,688.00	\$96,712.00
2020	10" DIP	1,175	2	100	\$241.73	\$284,037.87	0.02	\$4.83	\$278,357.11	\$305,500.00	\$6,110.00	\$299,390.00
2010	10" DIP	1,175	12	100	\$177.80	\$208,920.42	0.12	\$21.34	\$183,849.97	\$305,500.00	\$36,660.00	\$268,840.00
2000	10" DIP	1,175	22	100	\$106.60	\$125,255.00	0.22	\$23.45	\$97,698.90	\$305,500.00	\$67,210.00	\$238,290.00
1990	10" DIP	1,175	32	100	\$85.80	\$100,815.00	0.32	\$27.46	\$68,554.20	\$305,500.00	\$97,760.00	\$207,740.00
1980	10" DIP	5,091	42	100	\$57.20	\$291,205.20	0.42	\$24.02	\$168,899.02	\$1,323,660.00	\$555,937.20	\$767,722.80
1970	10" DIP	6,658	52	100	\$26.83	\$178,618.57	0.52	\$13.95	\$85,736.92	\$1,731,080.00	\$900,161.60	\$830,918.40
1960	10" DIP	11,357	62	100	\$19.50	\$221,461.50	0.62	\$12.09	\$84,155.37	\$2,952,820.00	\$1,830,748.40	\$1,122,071.60
1950	10" DIP	3,524	72	100	\$12.22	\$43,063.28	0.72	\$8.80	\$12,057.72	\$916,240.00	\$659,692.80	\$256,547.20
2020	8" DIP	3,340	2	100	\$232.44	\$776,339.19	0.02	\$4.65	\$760,812.40	\$835,000.00	\$16,700.00	\$818,300.00
2010	8" DIP	3,341	12	100	\$170.97	\$571,197.31	0.12	\$20.52	\$502,653.63	\$835,250.00	\$100,230.00	\$735,020.00
2000	8" DIP	3,340	22	100	\$102.50	\$342,350.00	0.22	\$22.55	\$267,033.00	\$835,000.00	\$183,700.00	\$651,300.00
1990	8" DIP	3,341	32	100	\$82.50	\$275,632.50	0.32	\$26.40	\$187,430.10	\$835,250.00	\$267,280.00	\$567,970.00
1980	8" DIP	14,476	42	100	\$55.00	\$796,180.00	0.42	\$23.10	\$461,784.40	\$3,619,000.00	\$1,519,980.00	\$2,099,020.00
1970	8" DIP	18,929	52	100	\$25.80	\$488,289.24	0.52	\$13.41	\$234,378.84	\$4,732,250.00	\$2,460,770.00	\$2,271,480.00
1960	8" DIP	32,292	62	100	\$18.75	\$605,475.00	0.62	\$11.63	\$230,080.50	\$8,073,000.00	\$5,005,260.00	\$3,067,740.00
1950	8" DIP	10,021	72	100	\$11.75	\$117,746.75	0.72	\$8.46	\$32,969.09	\$2,505,250.00	\$1,803,780.00	\$701,470.00
2020	6" DIP	486	2	100	\$209.19	\$101,667.89	0.02	\$4.18	\$99,634.53	\$109,350.00	\$2,187.00	\$107,163.00
2010	6" DIP	486	12	100	\$153.87	\$74,780.52	0.12	\$18.46	\$65,806.85	\$109,350.00	\$13,122.00	\$96,228.00
2000	6" DIP	487	22	100	\$92.25	\$44,925.75	0.22	\$20.30	\$35,042.09	\$109,575.00	\$24,106.50	\$85,468.50
1990	6" DIP	486	32	100	\$74.25	\$36,085.50	0.32	\$23.76	\$24,538.14	\$109,350.00	\$34,992.00	\$74,358.00
1980	6" DIP	2,107	42	100	\$49.50	\$104,296.50	0.42	\$20.79	\$60,491.97	\$474,075.00	\$199,111.50	\$274,963.50
1970	6" DIP	2,766	52	100	\$23.22	\$64,216.14	0.52	\$12.07	\$30,823.75	\$622,350.00	\$323,622.00	\$298,728.00
1960	6" DIP	4,701	62	100	\$16.88	\$79,329.38	0.62	\$10.46	\$30,145.16	\$1,057,725.00	\$655,789.50	\$401,935.50
1950	6" DIP	1,459	72	100	\$10.58	\$15,428.93	0.72	\$7.61	\$4,320.10	\$328,275.00	\$236,358.00	\$91,917.00
1940	10" CIP	2,336	82	100	\$6.50	\$15,184.00	0.82	\$5.33	\$2,733.12	\$607,360.00	\$498,035.20	\$109,324.80
1910-1920	10" CIP	2,336	107	100	\$2.57	\$6,000.26	1	\$2.57	\$0.00	\$607,360.00	\$607,360.00	\$0.00
1940	8" CIP	1,018	82	100	\$6.25	\$6,362.50	0.82	\$5.13	\$1,145.25	\$254,500.00	\$208,690.00	\$45,810.00
1910-1920	8" CIP	1,018	107	100	\$2.47	\$2,514.27	1	\$2.47	\$0.00	\$254,500.00	\$254,500.00	\$0.00
1940	6" CIP	6,409	82	100	\$5.63	\$36,050.63	0.82	\$4.61	\$6,489.11	\$1,442,025.00	\$1,182,460.50	\$259,564.50
1910-1920	6" CIP	6,409	107	100	\$2.22	\$14,246.13	1	\$2.22	\$0.00	\$1,442,025.00	\$1,442,025.00	\$0.00
1940	4" CIP	1,533	82	100	\$5.00	\$7,665.00	0.82	\$4.10	\$1,379.70	\$306,600.00	\$251,412.00	\$55,188.00
1910-1920	4" CIP	1,533	107	100	\$1.98	\$3,028.98	1	\$1.98	\$0.00	\$306,600.00	\$306,600.00	\$0.00
1970	12"ACP	306	52	100	\$28.38	\$8,682.88	0.52	\$14.76	\$4,167.78	\$84,150.00	\$43,758.00	\$40,392.00
1960	12"ACP	451	62	100	\$20.63	\$9,301.88	0.62	\$12.79	\$3,534.71	\$124,025.00	\$76,895.50	\$47,129.50
1950	12"ACP	209	72	100	\$12.93	\$2,701.33	0.72	\$9.31	\$756.37	\$57,475.00	\$41,382.00	\$16,093.00
1970	10" ACP	1,871	52	100	\$26.83	\$50,194.56	0.52	\$13.95	\$24,093.39	\$486,460.00	\$252,959.20	\$233,500.80
1960	10" ACP	2,757	62	100	\$19.50	\$53,761.50	0.62	\$12.09	\$20,429.37	\$716,820.00	\$444,428.40	\$272,391.60
1950	10" ACP	1,280	72	100	\$12.22	\$15,641.60	0.72	\$8.80	\$4,379.65	\$332,800.00	\$239,616.00	\$93,184.00
1970	8" ACP	1529	52	100	\$15.48	\$23,665.09	0.52	\$8.05	\$11,359.24	\$229,350.00	\$119,262.00	\$110,088.00
1960	8" ACP	2,254	62	100	\$11.25	\$25,357.50	0.62	\$6.98	\$9,635.85	\$338,100.00	\$209,622.00	\$128,478.00
1950	8" ACP	1,046	72	100	\$9.40	\$9,832.40	0.72	\$6.77	\$2,753.07	\$209,200.00	\$150,624.00	\$58,576.00
1970	6" ACP	4125	52	100	\$23.22	\$95,767.01	0.52	\$12.07	\$45,968.17	\$928,125.00	\$482,625.00	\$445,500.00
1960	6" ACP	6079	62	100	\$16.88	\$102,583.13	0.62	\$10.46	\$38,981.59	\$1,367,775.00	\$848,020.50	\$519,754.50
1950	6" ACP	2823	72	100	\$10.58	\$29,853.23	0.72	\$7.61	\$8,358.90	\$635,175.00	\$457,326.00	\$177,849.00
TOTALS:		193,471				\$7,096,309.83		\$2,477,919.03	\$4,618,390.80	\$47,599,505.00	\$26,920,654.40	\$20,678,850.60

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

WATER DISTRIBUTION SYSTEM												
WATER VALVES												
YEAR OF PURCHASE	ITEM	# OF VALVES	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COSTS	DEPRECIATION	RCNLD
1990	16" Valve	1	32	100	\$59.28	\$59.28	0.32	\$18.97	\$40.31	\$6,000.00	\$1,920.00	\$4,080.00
1980	16" Valve	1	42	100	\$1,980.00	\$1,980.00	0.42	\$831.60	\$1,148.40	\$6,000.00	\$2,520.00	\$3,480.00
1970	16" Valve	1	52	100	\$1,320.00	\$1,320.00	0.52	\$686.40	\$633.60	\$6,000.00	\$3,120.00	\$2,880.00
1960	16" Valve	2	62	100	\$619.10	\$1,238.20	0.62	\$383.84	\$470.52	\$12,000.00	\$7,440.00	\$4,560.00
1950	16" Valve	1	72	100	\$450.00	\$450.00	0.72	\$324.00	\$126.00	\$6,000.00	\$4,320.00	\$1,680.00
2020	12" Valve	1	2	100	\$235.00	\$235.00	0.02	\$4.70	\$230.30	\$5,000.00	\$100.00	\$4,900.00
2010	12" Valve	1	12	100	\$3,419.32	\$3,419.32	0.12	\$410.32	\$3,009.00	\$5,000.00	\$600.00	\$4,400.00
2000	12" Valve	1	22	100	\$2,050.00	\$2,050.00	0.22	\$451.00	\$1,599.00	\$5,000.00	\$1,100.00	\$3,900.00
1990	12" Valve	1	32	100	\$1,650.00	\$1,650.00	0.32	\$528.00	\$1,122.00	\$5,000.00	\$1,600.00	\$3,400.00
1980	12" Valve	6	42	100	\$1,100.00	\$6,600.00	0.42	\$462.00	\$3,828.00	\$30,000.00	\$12,600.00	\$17,400.00
1970	12" Valve	8	52	100	\$515.92	\$4,127.33	0.52	\$268.28	\$1,981.12	\$40,000.00	\$20,800.00	\$19,200.00
1960	12" Valve	15	62	100	\$375.00	\$5,625.00	0.62	\$232.50	\$2,137.50	\$75,000.00	\$46,500.00	\$28,500.00
1950	12" Valve	5	72	100	\$235.00	\$1,175.00	0.72	\$169.20	\$329.00	\$25,000.00	\$18,000.00	\$7,000.00
1940	12" Valve	2	82	100	\$125.00	\$250.00	0.82	\$102.50	\$45.00	\$10,000.00	\$8,200.00	\$1,800.00
1910-1920	12" Valve	2	107	100	\$49.40	\$98.79	1.00	\$49.40	\$0.00	\$10,000.00	\$10,000.00	\$0.00
2020	10" Valve	4	2	100	\$3,718.99	\$14,875.96	0.02	\$74.38	\$14,578.44	\$16,000.00	\$320.00	\$15,680.00
2010	10" Valve	4	12	100	\$2,735.46	\$10,941.82	0.12	\$328.25	\$9,628.80	\$16,000.00	\$1,920.00	\$14,080.00
2000	10" Valve	4	22	100	\$1,640.00	\$6,560.00	0.22	\$360.80	\$5,116.80	\$16,000.00	\$3,520.00	\$12,480.00
1990	10" Valve	4	32	100	\$1,320.00	\$5,280.00	0.32	\$422.40	\$3,590.40	\$16,000.00	\$5,120.00	\$10,880.00
1980	10" Valve	22	42	100	\$880.00	\$19,360.00	0.42	\$369.60	\$11,228.80	\$88,000.00	\$36,960.00	\$51,040.00
1970	10" Valve	29	52	100	\$412.73	\$11,969.26	0.52	\$214.62	\$5,745.25	\$116,000.00	\$60,320.00	\$55,680.00
1960	10" Valve	51	62	100	\$300.00	\$15,300.00	0.62	\$186.00	\$5,814.00	\$204,000.00	\$126,480.00	\$77,520.00
1950	10" Valve	15	72	100	\$188.00	\$2,820.00	0.72	\$135.36	\$789.60	\$60,000.00	\$43,200.00	\$16,800.00
1940	10" Valve	7	82	100	\$100.00	\$700.00	0.82	\$82.00	\$126.00	\$28,000.00	\$22,960.00	\$5,040.00
1910-1920	10" Valve	7	107	100	\$39.52	\$276.62	1.00	\$39.52	\$0.00	\$28,000.00	\$28,000.00	\$0.00
2020	8" Valve	9	2	100	\$3,254.12	\$29,287.05	0.02	\$65.08	\$28,701.31	\$31,500.00	\$630.00	\$30,870.00
2010	8" Valve	9	12	100	\$2,393.52	\$21,541.71	0.12	\$287.22	\$18,956.71	\$31,500.00	\$3,780.00	\$27,720.00
2000	8" Valve	9	22	100	\$1,435.00	\$12,915.00	0.22	\$315.70	\$10,073.70	\$31,500.00	\$6,930.00	\$24,570.00
1990	8" Valve	9	32	100	\$1,155.00	\$10,395.00	0.32	\$369.60	\$7,068.60	\$31,500.00	\$10,080.00	\$21,420.00
1980	8" Valve	51	42	100	\$770.00	\$39,270.00	0.42	\$323.40	\$22,776.60	\$178,500.00	\$74,970.00	\$103,530.00
1970	8" Valve	67	52	100	\$361.14	\$24,196.49	0.52	\$187.79	\$11,614.31	\$234,500.00	\$121,940.00	\$112,560.00
1960	8" Valve	117	62	100	\$262.50	\$30,712.50	0.62	\$162.75	\$11,670.75	\$409,500.00	\$253,890.00	\$155,610.00
1950	8" Valve	33	72	100	\$164.50	\$5,428.50	0.72	\$118.44	\$1,519.98	\$115,500.00	\$83,160.00	\$32,340.00
1940	8" Valve	17	82	100	\$87.50	\$1,487.50	0.82	\$71.75	\$267.75	\$59,500.00	\$48,790.00	\$10,710.00
1910-1920	8" Valve	17	107	100	\$34.58	\$587.82	1.00	\$34.58	\$0.00	\$59,500.00	\$59,500.00	\$0.00
2020	6" Valve	3	2	100	\$2,324.37	\$6,973.11	0.02	\$46.49	\$6,833.64	\$7,500.00	\$150.00	\$7,350.00
2010	6" Valve	3	12	100	\$1,709.66	\$5,128.98	0.12	\$205.16	\$4,513.50	\$7,500.00	\$900.00	\$6,600.00
2000	6" Valve	3	22	100	\$1,025.00	\$3,075.00	0.22	\$225.50	\$2,398.50	\$7,500.00	\$1,650.00	\$5,850.00
1990	6" Valve	3	32	100	\$825.00	\$2,475.00	0.32	\$264.00	\$1,683.00	\$7,500.00	\$2,400.00	\$5,100.00
1980	6" Valve	20	42	100	\$550.00	\$11,000.00	0.42	\$231.00	\$6,380.00	\$50,000.00	\$21,000.00	\$29,000.00
1970	6" Valve	27	52	100	\$257.96	\$6,964.87	0.52	\$134.14	\$3,343.14	\$67,500.00	\$35,100.00	\$32,400.00
1960	6" Valve	47	62	100	\$187.50	\$8,812.50	0.62	\$116.25	\$3,348.75	\$117,500.00	\$72,850.00	\$44,650.00
1950	6" Valve	13	72	100	\$117.50	\$1,527.50	0.72	\$84.60	\$427.70	\$32,500.00	\$23,400.00	\$9,100.00
1940	6" Valve	7	82	100	\$62.50	\$437.50	0.82	\$51.25	\$78.75	\$17,500.00	\$14,350.00	\$3,150.00
1910-1920	6" Valve	7	107	100	\$24.70	\$172.89	1.00	\$24.70	\$0.00	\$17,500.00	\$17,500.00	\$0.00
1990	4" Valve	1	32	100	\$660.00	\$660.00	0.32	\$211.20	\$448.80	\$2,000.00	\$640.00	\$1,360.00
1980	4" Valve	1	42	100	\$440.00	\$440.00	0.42	\$184.80	\$255.20	\$2,000.00	\$840.00	\$1,160.00
1970	4" Valve	2	52	100	\$206.37	\$412.73	0.52	\$107.31	\$198.11	\$4,000.00	\$2,080.00	\$1,920.00
1960	4" Valve	4	62	100	\$150.00	\$600.00	0.62	\$93.00	\$228.00	\$8,000.00	\$4,960.00	\$3,040.00
1950	4" Valve	1	72	100	\$94.00	\$94.00	0.72	\$67.68	\$26.32	\$2,000.00	\$1,440.00	\$560.00
TOTALS:		675				\$342,957.23		\$126,826.27	\$216,130.96	\$2,367,500.00	\$1,330,550.00	\$1,036,950.00

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

WATER DISTRIBUTION SYSTEM

FIRE HYDRANTS												
YEAR OF PURCHASE	ITEM	# OF HYDRANTS	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COSTS	DEPRECIATION	RCNLD
2021	Hydrant Assembly	1	1	100	\$ 7,000.00	\$ 7,000.00	0.01	\$ 70.00	\$ 6,930.00	\$ 7,000.00	\$ 70.00	\$ 6,930.00
2020	Hydrant Assembly	7	2	100	\$ 6,334.43	\$ 44,340.98	0.02	\$ 126.69	\$ 43,454.16	\$ 49,000.00	\$ 980.00	\$ 48,020.00
2019	Hydrant Assembly	4	3	100	\$ 6,099.18	\$ 24,396.72	0.03	\$ 182.98	\$ 23,664.82	\$ 28,000.00	\$ 840.00	\$ 27,160.00
2018	Hydrant Assembly	3	4	100	\$ 5,875.41	\$ 17,626.23	0.04	\$ 235.02	\$ 16,921.18	\$ 21,000.00	\$ 840.00	\$ 20,160.00
2017	Hydrant Assembly	7	5	100	\$ 5,628.69	\$ 39,400.82	0.05	\$ 281.43	\$ 37,430.78	\$ 49,000.00	\$ 2,450.00	\$ 46,550.00
2016	Hydrant Assembly	6	6	100	\$ 5,577.05	\$ 33,462.30	0.06	\$ 334.62	\$ 31,454.56	\$ 42,000.00	\$ 2,520.00	\$ 39,480.00
2013	Hydrant Assembly	7	9	100	\$ 4,498.36	\$ 31,488.52	0.09	\$ 404.85	\$ 28,654.56	\$ 49,000.00	\$ 4,410.00	\$ 44,590.00
2012	Hydrant Assembly	1	10	100	\$ 4,349.18	\$ 4,349.18	0.1	\$ 434.92	\$ 3,914.26	\$ 7,000.00	\$ 700.00	\$ 6,300.00
2011	Hydrant Assembly	13	11	100	\$ 4,194.26	\$ 54,525.41	0.11	\$ 461.37	\$ 48,527.61	\$ 91,000.00	\$ 10,010.00	\$ 80,990.00
2010	Hydrant Assembly	2	12	100	\$ 4,136.89	\$ 8,273.77	0.12	\$ 496.43	\$ 7,280.92	\$ 14,000.00	\$ 1,680.00	\$ 12,320.00
2009	Hydrant Assembly	7	13	100	\$ 4,194.26	\$ 29,359.84	0.13	\$ 545.25	\$ 25,543.06	\$ 49,000.00	\$ 6,370.00	\$ 42,630.00
2008	Hydrant Assembly	5	14	100	\$ 4,010.66	\$ 20,053.28	0.14	\$ 561.49	\$ 17,245.82	\$ 35,000.00	\$ 4,900.00	\$ 30,100.00
2007	Hydrant Assembly	13	15	100	\$ 3,838.52	\$ 49,900.82	0.15	\$ 575.78	\$ 42,415.70	\$ 91,000.00	\$ 13,650.00	\$ 77,350.00
2005	Hydrant Assembly	10	17	100	\$ 3,425.41	\$ 34,254.10	0.17	\$ 582.32	\$ 28,430.90	\$ 70,000.00	\$ 11,900.00	\$ 58,100.00
2003	Hydrant Assembly	10	19	100	\$ 3,270.49	\$ 32,704.92	0.19	\$ 621.39	\$ 26,490.98	\$ 70,000.00	\$ 13,300.00	\$ 56,700.00
2002	Hydrant Assembly	10	20	100	\$ 3,241.80	\$ 32,418.03	0.2	\$ 648.36	\$ 25,934.43	\$ 70,000.00	\$ 14,000.00	\$ 56,000.00
2001	Hydrant Assembly	2	21	100	\$ 3,161.48	\$ 6,322.95	0.21	\$ 663.91	\$ 4,995.13	\$ 14,000.00	\$ 2,940.00	\$ 11,060.00
1999	Hydrant Assembly	4	23	100	\$ 2,914.75	\$ 11,659.02	0.23	\$ 670.39	\$ 8,977.44	\$ 28,000.00	\$ 6,440.00	\$ 21,560.00
1997	Hydrant Assembly	6	25	100	\$ 2,725.41	\$ 16,352.46	0.25	\$ 681.35	\$ 12,264.34	\$ 42,000.00	\$ 10,500.00	\$ 31,500.00
1996	Hydrant Assembly	7	26	100	\$ 2,398.36	\$ 16,788.52	0.26	\$ 623.57	\$ 12,423.51	\$ 49,000.00	\$ 12,740.00	\$ 36,260.00
1994	Hydrant Assembly	10	28	100	\$ 2,243.44	\$ 22,434.43	0.28	\$ 628.16	\$ 16,152.79	\$ 70,000.00	\$ 19,600.00	\$ 50,400.00
1993	Hydrant Assembly	22	29	100	\$ 2,209.02	\$ 48,598.36	0.29	\$ 640.61	\$ 34,504.84	\$ 154,000.00	\$ 44,660.00	\$ 109,340.00
1992	Hydrant Assembly	3	30	100	\$ 2,168.85	\$ 6,506.56	0.3	\$ 650.66	\$ 4,554.59	\$ 21,000.00	\$ 6,300.00	\$ 14,700.00
1991	Hydrant Assembly	10	31	100	\$ 2,134.43	\$ 21,344.26	0.31	\$ 661.67	\$ 14,727.54	\$ 70,000.00	\$ 21,700.00	\$ 48,300.00
1990	Hydrant Assembly	5	32	100	\$ 2,082.79	\$ 10,413.93	0.32	\$ 666.49	\$ 7,081.48	\$ 35,000.00	\$ 11,200.00	\$ 23,800.00
1989	Hydrant Assembly	3	33	100	\$ 1,968.03	\$ 5,904.10	0.33	\$ 649.45	\$ 3,955.75	\$ 21,000.00	\$ 6,930.00	\$ 14,070.00
1988	Hydrant Assembly	11	34	100	\$ 1,836.07	\$ 20,196.72	0.34	\$ 624.26	\$ 13,329.84	\$ 77,000.00	\$ 26,180.00	\$ 50,820.00
1987	Hydrant Assembly	14	35	100	\$ 1,761.48	\$ 24,660.66	0.35	\$ 616.52	\$ 16,029.43	\$ 98,000.00	\$ 34,300.00	\$ 63,700.00
1986	Hydrant Assembly	10	36	100	\$ 1,698.36	\$ 16,983.61	0.36	\$ 611.41	\$ 10,869.51	\$ 70,000.00	\$ 25,200.00	\$ 44,800.00
1985	Hydrant Assembly	2	37	100	\$ 1,635.25	\$ 3,270.49	0.37	\$ 605.04	\$ 2,060.41	\$ 14,000.00	\$ 5,180.00	\$ 8,820.00
1984	Hydrant Assembly	10	38	100	\$ 1,549.18	\$ 15,491.80	0.38	\$ 588.69	\$ 9,604.92	\$ 70,000.00	\$ 26,600.00	\$ 43,400.00
1983	Hydrant Assembly	18	39	100	\$ 1,514.75	\$ 27,265.57	0.39	\$ 590.75	\$ 16,632.00	\$ 126,000.00	\$ 49,140.00	\$ 76,860.00
1982	Hydrant Assembly	1	40	100	\$ 1,405.74	\$ 1,405.74	0.4	\$ 562.30	\$ 843.44	\$ 7,000.00	\$ 2,800.00	\$ 4,200.00
1981	Hydrant Assembly	10	41	100	\$ 1,273.77	\$ 12,737.70	0.41	\$ 522.25	\$ 7,515.25	\$ 70,000.00	\$ 28,700.00	\$ 41,300.00
1980	Hydrant Assembly	3	42	100	\$ 1,187.70	\$ 3,563.11	0.42	\$ 498.84	\$ 2,066.61	\$ 21,000.00	\$ 8,820.00	\$ 12,180.00
1979	Hydrant Assembly	4	43	100	\$ 1,113.11	\$ 4,452.46	0.43	\$ 478.64	\$ 2,537.90	\$ 28,000.00	\$ 12,040.00	\$ 15,960.00
1978	Hydrant Assembly	2	44	100	\$ 1,044.26	\$ 2,088.52	0.44	\$ 459.48	\$ 1,169.57	\$ 14,000.00	\$ 6,160.00	\$ 7,840.00
1977	Hydrant Assembly	5	45	100	\$ 958.20	\$ 4,790.98	0.45	\$ 431.19	\$ 2,635.04	\$ 35,000.00	\$ 15,750.00	\$ 19,250.00
1976	Hydrant Assembly	4	46	100	\$ 900.82	\$ 3,603.28	0.46	\$ 414.38	\$ 1,945.77	\$ 28,000.00	\$ 12,880.00	\$ 15,120.00
1975	Hydrant Assembly	2	47	100	\$ 820.49	\$ 1,640.98	0.47	\$ 385.63	\$ 869.72	\$ 14,000.00	\$ 6,580.00	\$ 7,420.00
1974	Hydrant Assembly	9	48	100	\$ 705.74	\$ 6,351.64	0.48	\$ 338.75	\$ 3,302.85	\$ 63,000.00	\$ 30,240.00	\$ 32,760.00
1973	Hydrant Assembly	7	49	100	\$ 573.77	\$ 4,016.39	0.49	\$ 281.15	\$ 2,048.36	\$ 49,000.00	\$ 24,010.00	\$ 24,990.00
1972	Hydrant Assembly	15	50	100	\$ 550.82	\$ 8,262.30	0.5	\$ 275.41	\$ 4,131.15	\$ 105,000.00	\$ 52,500.00	\$ 52,500.00
1971	Hydrant Assembly	8	51	100	\$ 516.39	\$ 4,131.15	0.51	\$ 263.36	\$ 2,024.26	\$ 56,000.00	\$ 28,560.00	\$ 27,440.00
1970	Hydrant Assembly	2	52	100	\$ 459.02	\$ 918.03	0.52	\$ 238.69	\$ 440.66	\$ 14,000.00	\$ 7,280.00	\$ 6,720.00
1969	Hydrant Assembly	2	53	100	\$ 413.11	\$ 826.23	0.53	\$ 218.95	\$ 388.33	\$ 14,000.00	\$ 7,420.00	\$ 6,580.00
1968	Hydrant Assembly	5	54	100	\$ 390.16	\$ 1,950.82	0.54	\$ 210.69	\$ 897.38	\$ 35,000.00	\$ 18,900.00	\$ 16,100.00
1967	Hydrant Assembly	9	55	100	\$ 367.21	\$ 3,304.92	0.55	\$ 201.97	\$ 1,487.21	\$ 63,000.00	\$ 34,650.00	\$ 28,350.00
1966	Hydrant Assembly	6	56	100	\$ 350.00	\$ 2,100.00	0.56	\$ 196.00	\$ 924.00	\$ 42,000.00	\$ 23,520.00	\$ 18,480.00
1965	Hydrant Assembly	5	57	100	\$ 362.50	\$ 1,812.50	0.57	\$ 206.63	\$ 779.38	\$ 35,000.00	\$ 19,950.00	\$ 15,050.00
1964	Hydrant Assembly	2	58	100	\$ 362.50	\$ 725.00	0.58	\$ 210.25	\$ 304.50	\$ 14,000.00	\$ 8,120.00	\$ 5,880.00
TOTALS:		344				\$806,430.12		\$167,661.51	\$638,768.61	\$2,408,000.00	\$747,110.00	\$1,660,890.00

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

SANITARY SYSTEM FACILITIES

YEAR OF PURCHASE		AGE (YEARS)	ORIGINAL COST	LIFE	DEPRECIATION FACTOR	DEPRECIATION COST	OCLD	original cost factor	REPLACEMENT COST	ACCUMULATED DEPRECIATION	RCNLD
	NEW BRUNSWICK AVE PUMP STATION										
1971	LIFT STATION DOGHOUSE STRUCTURE	51	\$7,730.06	100	0.51	\$3,942.33	\$3,787.73	0.10	\$75,000.00	\$38,250.00	\$36,750.00
1971	WET WELL	51	\$25,293.59	50	1.00	\$25,293.59	\$0.00	0.07	\$350,000.00	\$350,000.00	\$0.00
1971	PUMPS	51	\$7,226.74	25	1.00	\$7,226.74	\$0.00	0.07	\$100,000.00	\$100,000.00	\$0.00
1971	ELECTRICAL AND CONTROLS	51	\$6,348.12	25	1.00	\$6,348.12	\$0.00	0.06	\$100,000.00	\$100,000.00	\$0.00
1971	GENERATOR	51	\$5,420.05	50	1.00	\$5,420.05	\$0.00	0.07	\$75,000.00	\$75,000.00	\$0.00
	MATAWAN AVE PUMP STATION										
1960	WET WELL	62	\$114,543.81	50	0.00	\$0.00	\$0.00	0.29	\$400,000.00	\$0.00	\$400,000.00
1960	PUMPS	62	\$28,635.95	25	1.00	\$28,635.95	\$0.00	0.29	\$100,000.00	\$100,000.00	\$0.00
1960	ELECTRICAL AND CONTROLS	62	\$28,635.95	25	1.00	\$28,635.95	\$0.00	0.29	\$100,000.00	\$100,000.00	\$0.00
1960	GENERATOR	62	\$16,894.20	50	0.00	\$0.00	\$16,894.20	0.23	\$75,000.00	\$0.00	\$75,000.00
	LAKESIDE DRIVE PUMP STATION										
1992	WET WELL	30	\$123,938.57	50	0.60	\$74,363.14	\$49,575.43	0.31	\$400,000.00	\$240,000.00	\$160,000.00
1992	PUMPS	30	\$24,232.08	25	1.00	\$24,232.08	\$0.00	0.24	\$100,000.00	\$100,000.00	\$0.00
1992	ELECTRICAL AND CONTROLS	30	\$24,232.08	25	1.00	\$24,232.08	\$0.00	0.24	\$100,000.00	\$100,000.00	\$0.00
1992	GENERATOR	30	\$23,238.48	50	0.60	\$13,943.09	\$9,295.39	0.31	\$75,000.00	\$45,000.00	\$30,000.00
	SOMERSET PLACE PUMP STATION										
1989	WET WELL	33	\$143,179.77	50	0.66	\$94,498.64	\$48,681.12	0.29	\$500,000.00	\$330,000.00	\$170,000.00
2002	PUMPS	20	\$54,163.82	25	0.80	\$43,331.06	\$10,832.76	0.36	\$150,000.00	\$120,000.00	\$30,000.00
2002	ELECTRICAL AND CONTROLS	20	\$72,218.43	25	0.80	\$57,774.74	\$14,443.69	0.36	\$200,000.00	\$160,000.00	\$40,000.00
2002	IMPROVEMENTS	20	\$585,333.33	20	1.00	\$585,333.33	\$0.00	0.48	\$1,210,778.34	\$1,210,778.34	\$0.00
1989	GENERATOR	33	\$28,635.95	50	0.66	\$18,899.73	\$9,736.22	0.29	\$100,000.00	\$66,000.00	\$34,000.00
	VICTORIA COURT PUMP STATION										
1992	WET WELL & EQUIPMENT	30	\$123,938.57	50	0.60	\$74,363.14	\$49,575.43	0.31	\$400,000.00	\$240,000.00	\$160,000.00
2002	PUMPS	20	\$36,109.22	25	0.80	\$28,887.37	\$7,221.84	0.36	\$100,000.00	\$80,000.00	\$20,000.00
2002	ELECTRICAL AND CONTROLS	20	\$36,109.22	25	0.80	\$28,887.37	\$7,221.84	0.36	\$100,000.00	\$80,000.00	\$20,000.00
1992	GENERATOR	30	\$23,238.48	50	0.60	\$13,943.09	\$9,295.39	0.31	\$75,000.00	\$45,000.00	\$30,000.00
2002	IMPROVEMENTS	20	\$292,666.67	30	0.67	\$195,111.11	\$97,555.56	0.48	\$605,389.17	\$403,592.78	\$201,796.39
	CROSS ROAD PUMP STATION										
1989	WET WELL	33	\$100,225.84	50	0.66	\$66,149.05	\$34,076.78	0.29	\$350,000.00	\$231,000.00	\$119,000.00
1989	PUMPS	33	\$54,163.82	25	1.00	\$54,163.82	\$0.00	0.36	\$150,000.00	\$150,000.00	\$0.00
1989	ELECTRICAL AND CONTROLS	33	\$28,635.95	25	1.00	\$28,635.95	\$0.00	0.29	\$100,000.00	\$100,000.00	\$0.00
2021	GENERATOR	1	\$100,000.00	50	0.02	\$2,000.00	\$98,000.00	1.00	\$100,000.00	\$2,000.00	\$98,000.00

	BUTTONWOOD PUMP STATION										
1960	LIFT STATION BUILDING	62	\$13,251.53	100	0.62	\$8,215.95	\$5,035.58	0.07	\$200,000.00	\$124,000.00	\$76,000.00
1960	WET WELL	62	\$144,896.12	50	1.00	\$144,896.12	\$0.00	0.36	\$400,000.00	\$400,000.00	\$0.00
1998	PUMPS	24	\$72,448.06	25	0.96	\$69,550.14	\$2,897.92	0.36	\$200,000.00	\$192,000.00	\$8,000.00
1960	ELECTRICAL AND CONTROLS	62	\$66,757.68	25	1.00	\$66,757.68	\$0.00	0.33	\$200,000.00	\$200,000.00	\$0.00
1998	GENERATOR	24	\$36,224.03	50	0.48	\$17,387.53	\$18,836.50	0.36	\$100,000.00	\$48,000.00	\$52,000.00
	OAK KNOLL										
1987	WET WELL	35	\$95,799.46	50	0.70	\$67,059.62	\$28,739.84	0.27	\$350,000.00	\$245,000.00	\$105,000.00
1987	PUMPS	35	\$27,371.27	25	1.00	\$27,371.27	\$0.00	0.27	\$100,000.00	\$100,000.00	\$0.00
1987	ELECTRICAL AND CONTROLS	35	\$18,907.85	25	1.00	\$18,907.85	\$0.00	0.19	\$100,000.00	\$100,000.00	\$0.00
1987	GENERATOR	35	\$20,528.46	50	0.70	\$14,369.92	\$6,158.54	0.27	\$75,000.00	\$52,500.00	\$22,500.00
	CENTER AVE										
1992	WET WELL	30	\$250,248.26	50	0.60	\$150,148.96	\$100,099.30	0.83	\$300,000.00	\$180,000.00	\$120,000.00
2015	PUMPS	7	\$83,416.09	25	0.28	\$23,356.50	\$60,059.58	0.83	\$100,000.00	\$28,000.00	\$72,000.00
2015	ELECTRICAL AND CONTROLS	7	\$63,549.49	25	0.28	\$17,793.86	\$45,755.63	0.64	\$100,000.00	\$28,000.00	\$72,000.00
1992	GENERATOR	30	\$23,238.48	50	0.60	\$13,943.09	\$9,295.39	0.31	\$75,000.00	\$45,000.00	\$30,000.00
	CHRISTINE COURT										
1997	WET WELL	25	\$70,280.04	50	0.50	\$35,140.02	\$35,140.02	0.35	\$200,000.00	\$100,000.00	\$100,000.00
1997	PUMPS	25	\$26,355.01	25	1.00	\$26,355.01	\$0.00	0.35	\$75,000.00	\$75,000.00	\$0.00
1997	ELECTRICAL AND CONTROLS	25	\$24,215.02	25	1.00	\$24,215.02	\$0.00	0.32	\$75,000.00	\$75,000.00	\$0.00
1997	GENERATOR	25	\$26,355.01	50	0.50	\$13,177.51	\$13,177.51	0.35	\$75,000.00	\$37,500.00	\$37,500.00
	MISCELLANEOUS										
2020	JET VAC TRUCK	2	\$77,687.44	30	0.07	\$5,179.16	\$72,508.28	0.97	\$80,000.00	\$5,333.33	\$74,666.67
TOTALS:			\$3,256,518.06			\$2,278,076.77	\$863,897.48		\$8,996,167.51	\$6,601,954.46	\$2,394,213.06

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

SANITARY CONVEYANCE

SANITARY MAIN												
YEAR OF PURCHASE	ITEM	LINEAR FEET OF PIPE	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COST	DEPRECIATION	RCNLD
1960	18" VCP	592	62	100	\$22.50	\$13,320.00	0.62	\$13.95	\$5,061.60	\$177,600.00	\$110,112.00	\$67,488.00
1990	12" VCP	196	32	100	\$92.40	\$18,110.40	0.32	\$29.57	\$12,315.07	\$54,880.00	\$17,561.60	\$37,318.40
1980	12" VCP	882	42	100	\$61.60	\$54,331.20	0.42	\$25.87	\$31,512.10	\$246,960.00	\$103,723.20	\$143,236.80
1970	12" VCP	1156	52	100	\$28.89	\$33,398.38	0.52	\$15.02	\$16,031.22	\$323,680.00	\$168,313.60	\$155,366.40
1960	12" VCP	1979	62	100	\$21.00	\$41,559.00	0.62	\$13.02	\$15,792.42	\$554,120.00	\$343,554.40	\$210,565.60
1950	12" VCP	607	72	100	\$13.16	\$7,988.12	0.72	\$9.48	\$2,236.67	\$169,960.00	\$122,371.20	\$47,588.80
1940	12" VCP	333	82	100	\$7.00	\$2,331.00	0.82	\$5.74	\$419.58	\$93,240.00	\$76,456.80	\$16,783.20
1910-1920	12" VCP	333	107	100	\$2.77	\$921.14	1.00	\$2.77	\$0.00	\$93,240.00	\$93,240.00	\$0.00
1990	10" VCP	424	32	100	\$85.80	\$36,379.20	0.32	\$27.46	\$24,737.86	\$110,240.00	\$35,276.80	\$74,963.20
1980	10" VCP	1906	42	100	\$57.20	\$109,023.20	0.42	\$24.02	\$63,233.46	\$495,560.00	\$208,135.20	\$287,424.80
1970	10" VCP	2499	52	100	\$26.83	\$67,042.33	0.52	\$13.95	\$32,180.32	\$649,740.00	\$337,864.80	\$311,875.20
1960	10" VCP	4278	62	100	\$19.50	\$83,421.00	0.62	\$12.09	\$31,699.98	\$1,112,280.00	\$689,613.60	\$422,666.40
1950	10" VCP	1313	72	100	\$12.22	\$16,044.86	0.72	\$8.80	\$4,492.56	\$341,380.00	\$245,793.60	\$95,586.40
1940	10" VCP	720	82	100	\$6.50	\$4,680.00	0.82	\$5.33	\$842.40	\$187,200.00	\$153,504.00	\$33,696.00
1910-1920	10" VCP	720	107	100	\$2.57	\$1,849.40	1.00	\$2.57	\$0.00	\$187,200.00	\$187,200.00	\$0.00
1990	8" VCP	2432	32	100	\$79.20	\$192,614.40	0.32	\$25.34	\$130,977.79	\$583,680.00	\$186,777.60	\$396,902.40
1980	8" VCP	10945	42	100	\$52.80	\$577,896.00	0.42	\$22.18	\$335,179.68	\$2,626,800.00	\$1,103,256.00	\$1,523,544.00
1970	8" VCP	14350	52	100	\$24.76	\$355,363.34	0.52	\$12.88	\$170,574.40	\$3,444,000.00	\$1,790,880.00	\$1,653,120.00
1960	8" VCP	24566	62	100	\$18.00	\$442,188.00	0.62	\$11.16	\$168,031.44	\$5,895,840.00	\$3,655,420.80	\$2,240,419.20
1950	8" VCP	7540	72	100	\$11.28	\$85,051.20	0.72	\$8.12	\$23,814.34	\$1,809,600.00	\$1,302,912.00	\$506,688.00
1940	8" VCP	4135	82	100	\$6.00	\$24,810.00	0.82	\$4.92	\$4,465.80	\$992,400.00	\$813,768.00	\$178,632.00
1910-1920	8" VCP	4135	107	100	\$2.37	\$9,804.17	1.00	\$2.37	\$0.00	\$992,400.00	\$992,400.00	\$0.00
1960	36" RCP	1455	62	100	\$24.00	\$34,920.00	0.62	\$14.88	\$13,269.60	\$465,600.00	\$288,672.00	\$176,928.00
1960	18" RCP	191	62	100	\$22.50	\$4,297.50	0.62	\$13.95	\$1,633.05	\$57,300.00	\$35,526.00	\$21,774.00
1940	12" RCP	166	82	100	\$7.00	\$1,162.00	0.82	\$5.74	\$209.16	\$46,480.00	\$38,113.60	\$8,366.40
1940	8" RCP	230	82	100	\$6.00	\$1,380.00	0.82	\$4.92	\$248.40	\$55,200.00	\$45,264.00	\$9,936.00
1980	10" PVC	335	42	100	\$57.20	\$19,162.00	0.42	\$24.02	\$11,113.96	\$87,100.00	\$36,582.00	\$50,518.00
2020	8" PVC	395	2	100	\$223.14	\$88,140.07	0.02	\$4.46	\$86,377.26	\$94,800.00	\$1,896.00	\$92,904.00
2010	8" PVC	395	12	100	\$164.13	\$64,830.30	0.12	\$19.70	\$57,050.66	\$94,800.00	\$11,376.00	\$83,424.00
2000	8" PVC	395	22	100	\$98.40	\$38,868.00	0.22	\$21.65	\$30,317.04	\$94,800.00	\$20,856.00	\$73,944.00
1990	8" PVC	395	32	100	\$79.20	\$31,284.00	0.32	\$25.34	\$21,273.12	\$94,800.00	\$30,336.00	\$64,464.00
1980	8" PVC	2368	42	100	\$52.80	\$125,030.40	0.42	\$22.18	\$72,517.63	\$568,320.00	\$238,694.40	\$329,625.60
1970	8" PVC	3157	52	100	\$24.76	\$78,179.93	0.52	\$12.88	\$37,526.37	\$757,680.00	\$393,993.60	\$363,686.40
1960	8" PVC	7102	62	100	\$18.00	\$127,836.00	0.62	\$11.16	\$48,577.68	\$1,704,480.00	\$1,056,777.60	\$647,702.40
1950	8" PVC	1578	72	100	\$11.28	\$17,799.84	0.72	\$8.12	\$4,983.96	\$378,720.00	\$272,678.40	\$106,041.60
1980	4" PVC	2799	42	100	\$44.00	\$123,156.00	0.42	\$18.48	\$71,430.48	\$559,800.00	\$235,116.00	\$324,684.00
1980	2" PVC	1586	42	100	\$39.60	\$62,805.60	0.42	\$16.63	\$36,427.25	\$285,480.00	\$119,901.60	\$165,578.40
1940	12" CIP	111	82	100	\$21.00	\$2,331.00	0.82	\$17.22	\$419.58	\$31,080.00	\$25,485.60	\$5,594.40

1910-1920	12" CIP	111	107	100	\$223.14	\$24,768.47	1.00	\$223.14	\$0.00	\$26,640.00	\$26,640.00	\$0.00
1940	8" CIP	879	82	100	\$6.00	\$5,274.00	0.82	\$4.92	\$949.32	\$210,960.00	\$172,987.20	\$37,972.80
1910-1920	8" CIP	879	107	100	\$2.37	\$2,084.13	1.00	\$2.37	\$0.00	\$210,960.00	\$210,960.00	\$0.00
1940	6" CIP	2667	82	100	\$5.50	\$14,668.50	0.82	\$4.51	\$2,640.33	\$586,740.00	\$481,126.80	\$105,613.20
1910-1920	6" CIP	2667	107	100	\$2.17	\$5,796.55	1.00	\$2.17	\$0.00	\$586,740.00	\$586,740.00	\$0.00
1940	4" CIP	971	82	100	\$5.00	\$4,855.00	0.82	\$4.10	\$873.90	\$194,200.00	\$159,244.00	\$34,956.00
1910-1920	4" CIP	971	107	100	\$1.98	\$1,918.55	1.00	\$1.98	\$0.00	\$194,200.00	\$194,200.00	\$0.00
1960	18" ACP	43	62	100	\$22.50	\$967.50	0.62	\$13.95	\$367.65	\$12,900.00	\$7,998.00	\$4,902.00
1970	12" ACP	1281	52	100	\$28.89	\$37,009.79	0.52	\$15.02	\$17,764.70	\$358,680.00	\$186,513.60	\$172,166.40
1960	12" ACP	1888	62	100	\$21.00	\$39,648.00	0.62	\$13.02	\$15,066.24	\$528,640.00	\$327,756.80	\$200,883.20
1950	12" ACP	876	72	100	\$13.16	\$11,528.16	0.72	\$9.48	\$3,227.88	\$245,280.00	\$176,601.60	\$68,678.40
1970	10" ACP	2261	52	100	\$26.83	\$60,657.34	0.52	\$13.95	\$29,115.52	\$587,860.00	\$305,687.20	\$282,172.80
1960	10" ACP	3332	62	100	\$19.50	\$64,974.00	0.62	\$12.09	\$24,690.12	\$866,320.00	\$537,118.40	\$329,201.60
1950	10" ACP	1547	72	100	\$12.22	\$18,904.34	0.72	\$8.80	\$5,293.22	\$402,220.00	\$289,598.40	\$112,621.60
1970	8" ACP	17,120	52	100	\$24.76	\$423,959.60	0.52	\$12.88	\$203,500.61	\$4,108,800.00	\$2,136,576.00	\$1,972,224.00
1960	8" ACP	25230	62	100	\$18.00	\$454,140.00	0.62	\$11.16	\$172,573.20	\$6,055,200.00	\$3,754,224.00	\$2,300,976.00
1950	8" ACP	11714	72	100	\$11.28	\$132,133.92	0.72	\$8.12	\$36,997.50	\$2,811,360.00	\$2,024,179.20	\$787,180.80
1970	4" ACP	1,556	52	100	\$20.64	\$32,110.65	0.52	\$10.73	\$15,413.11	\$311,200.00	\$161,824.00	\$149,376.00
1960	4" ACP	2,293	62	100	\$15.00	\$34,395.00	0.62	\$9.30	\$13,070.10	\$458,600.00	\$284,332.00	\$174,268.00
1950	4" ACP	1065	72	100	\$9.40	\$10,011.00	0.72	\$6.77	\$2,803.08	\$213,000.00	\$153,360.00	\$59,640.00
TOTALS:		188,050				\$4,379,113.48		\$2,267,793.11	\$2,111,320.36	\$45,488,940.00	\$27,767,071.20	\$17,721,868.80

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

SANITARY CONVEYANCE

SANITARY MANHOLES												
YEAR OF PURCHASE	ITEM	# OF MANHOLES	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COST	DEPRECIATION	RCNLD
2020	Manhole	20	2	100	\$ 4,648.74	\$ 92,974.75	0.02	\$ 92.97	\$91,115.26	\$100,000.00	\$2,000.00	\$98,000.00
2010	Manhole	20	12	100	\$ 3,419.32	\$ 68,386.39	0.12	\$ 410.32	\$60,180.02	\$100,000.00	\$12,000.00	\$88,000.00
2000	Manhole	20	22	100	\$ 2,050.00	\$ 41,000.00	0.22	\$ 451.00	\$31,980.00	\$100,000.00	\$22,000.00	\$78,000.00
1990	Manhole	20	32	100	\$ 1,650.00	\$ 33,000.00	0.32	\$ 528.00	\$22,440.00	\$100,000.00	\$32,000.00	\$68,000.00
1980	Manhole	121	42	100	\$ 1,100.00	\$ 133,100.00	0.42	\$ 462.00	\$77,198.00	\$605,000.00	\$254,100.00	\$350,900.00
1970	Manhole	160	52	100	\$ 515.92	\$ 82,546.65	0.52	\$ 268.28	\$39,622.39	\$800,000.00	\$416,000.00	\$384,000.00
1960	Manhole	280	62	100	\$ 375.00	\$ 105,000.00	0.62	\$ 232.50	\$39,900.00	\$1,400,000.00	\$868,000.00	\$532,000.00
1950	Manhole	80	72	100	\$ 235.00	\$ 18,800.00	0.72	\$ 169.20	\$5,264.00	\$400,000.00	\$288,000.00	\$112,000.00
1940	Manhole	40	82	100	\$ 125.00	\$ 5,000.00	0.82	\$ 102.50	\$900.00	\$200,000.00	\$164,000.00	\$36,000.00
1910-1920	Manhole	40	107	100	\$ 49.40	\$ 1,975.85	1	\$ 49.40	\$0.00	\$200,000.00	\$200,000.00	\$0.00
TOTALS:		801			\$14,168.37	\$581,783.64		\$213,183.97	\$368,599.67	\$4,005,000.00	\$2,258,100.00	\$1,746,900.00

Water & Sanitary Valuation

PREPARED FOR

BOROUGH OF MATAWAN

201 Broad Street
Matawan, NJ 07747

PREPARED BY

REMINGTON & VERNICK ENGINEERS

2059 Springdale Road
Cherry Hill, New Jersey 08003
(856) 795-9595

July 2025

BOROUGH OF SPOTSWOOD

WATER & SANITARY VALUATION

July 2025

The Borough of Matawan (Borough) is located in Monmouth County, New Jersey. It covers approximately 2.4 square miles of area and has approximately 9,566 residents (as per 2020 US Census; www.census.gov). The Borough owns and operates their own potable water supply, water treatment plant, water distribution system, a series of sanitary sewer lift stations, and a sanitary sewer conveyance system. The water services and sanitary laterals are owned by the residents from the house to the main in the street. There are 2,886 water service connections and 2,886 sanitary service connections, for a total of 5,772 connections.

The Borough retained Remington & Vernick Engineers to complete a valuation of the system based upon its current condition. The components of both the water and sanitary utility were identified based upon the following:

- Facility tours to assess the equipment installed and in place
- Review of the Borough GIS mapping
- Interview of utility personnel and operator
- Review of Water Allocation Permit and associated Staff Report

Basis of Valuation

Upon completion of the inventory and review of historic information, the replacement cost was determined for each item of the system. The replacement cost was based upon our experience and current industry standards and bid tabulation for the area. A lifespan or useful life was assigned to each type of component. Where existing system information was not provided, best judgment was utilized to assign both infrastructure age and replacement costs.

The average lives chosen were based on our experience with previous valuations. In addition, lifespans were established based upon our 1) experience with other utility systems, 2) lifespans approved by other studies for regulatory review and 3) condition of the assets at the time of our facility tours.

Once the above information was established, the value of the system was developed utilizing both the Original Cost Less Depreciation (OCLD) and the Replacement Cost New Less Depreciation (RCNLD) methodologies. The RCNLD was calculated by subtracting the depreciation from the Replacement Cost New amount. To establish the OCLD, trend factors were developed to determine the original cost. We utilized indices published by Handy-Whitman, in Bulletin No. 194. These trend factors were applied to the Replacement Cost and Depreciation.

We also felt that it was necessary to look at the current market value for the sale of utility systems and factor this information into the calculated valuation (OCLD & RCNLD). Accordingly, we looked at systems that sold recently and factored in their similarity to the Borough of Matawan. The utilities which were utilized as a basis of comparison per connection were:

- Borough of Haddonfield
- Longhill Township
- City of Wildwood

Conclusions

Based upon the weighted average of the OCLD, RCNLD and Market Value, we anticipate that the value of the water and sanitary system infrastructure is approximately \$39.3 million. It should be noted that the fair market value of the existing property has not been included in the system value. Accordingly, it is anticipated that the value would be greater than indicated.

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

CONSTRUCTION COSTS						
	ORIGINAL COSTS	DEPRECIATION	OCLD	REPLACEMENT COSTS	DEPRECIATION	RCNLD
WATER SYSTEM						
WATER FACILIITES	\$5,027,933.58	\$1,938,093.96	\$3,089,839.62	\$12,572,100.00	\$5,916,471.36	\$6,655,628.64
WATER DISTRIBUTION						
WATER MAIN	\$7,096,309.83	\$2,477,919.03	\$4,618,390.80	\$47,599,505.00	\$26,920,654.40	\$20,678,850.60
WATER VALVES	\$342,957.23	\$126,826.27	\$216,130.96	\$2,367,500.00	\$1,330,550.00	\$1,036,950.00
FIRE HYDRANTS	\$806,430.12	\$167,661.51	\$638,768.61	\$2,408,000.00	\$747,110.00	\$1,660,890.00
TOTAL WATER SYSTEM COSTS	\$13,273,630.76	\$4,710,500.77	\$8,563,129.99	\$64,947,105.00	\$34,914,785.76	\$30,032,319.24
SANITARY SYSTEM						
SANITARY FACILITIES	\$3,256,518.06	\$2,278,076.77	\$863,897.48	\$8,996,167.51	\$6,601,954.46	\$2,394,213.06
SANITARY CONVEYANCE						
SANITARY MAIN	\$4,379,113.48	\$2,267,793.11	\$2,111,320.36	\$45,488,940.00	\$27,767,071.20	\$17,721,868.80
MANHOLES	\$581,783.64	\$213,183.97	\$368,599.67	\$4,005,000.00	\$2,258,100.00	\$1,746,900.00
TOTAL SANITARY SYSTEM COSTS	\$8,217,415.18	\$4,759,053.85	\$3,343,817.52	\$58,490,107.51	\$36,627,125.66	\$21,862,981.86
TOTAL CONSTRUCTION COSTS	\$21,491,045.94	\$9,469,554.62	\$11,906,947.51	\$123,437,212.51	\$71,541,911.42	\$51,895,301.09
SOFT COSTS						
DESIGN & PERMITTING ENGINEERING (12%)	\$2,578,925.51	\$1,136,346.55	\$1,428,833.70	\$14,812,465.50	\$8,585,029.37	\$6,227,436.13
CONTRACT ADMINISTRATION (4%)	\$859,641.84	\$378,782.18	\$476,277.90	\$4,937,488.50	\$2,861,676.46	\$2,075,812.04
CONSTRUCTION OVERSIGHT (6%)	\$1,289,462.76	\$568,173.28	\$714,416.85	\$7,406,232.75	\$4,292,514.69	\$3,113,718.07
TOTAL SOFT COSTS	\$4,728,030.11	\$2,083,302.02	\$2,619,528.45	\$27,156,186.75	\$15,739,220.51	\$11,416,966.24
OVERALL WATER & SEWER SYSTEM COSTS	\$26,219,076.05	\$11,552,856.63	\$14,526,475.97	\$150,593,399.27	\$87,281,131.93	\$63,312,267.33

WEIGHTED AVERAGE				
\$40,945,000.00	0.2	\$8,189,000.00	Market Analysis	
\$63,312,267.33	0.4	\$25,324,906.93	Cost Analysis - RCNLD	
\$14,526,475.97	0.4	\$5,810,590.39	Cost Analysis - OCLD	
		\$39,324,497.32		

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

WATER SYSTEM FACILITIES

YEAR OF PURCHASE	ITEM	AGE (YEARS)	ORIGINAL COST	LIFE	DEPRECIATION FACTOR	DEPRECIATION COST	OCLD	original cost factor	REPLACEMENT COST	ACCUMULATED DEPRECIATION	RCNLD
	WELL NO. 3 (800 gpm)										
1956	WELL NO. 3 - WELL AND PIPING	66	\$33,865.03	100	0.66	\$22,350.92	\$11,514.11	0.06	\$600,000.00	\$396,000.00	\$204,000.00
1985	WELL NO. 3 - REDEVELOPMENT AND REPAIR	40	\$47,300.00	50	0.80	\$37,840.00	\$9,460.00	0.27	\$75,000.00	\$60,000.00	\$15,000.00
2012	WELL NO. 3 ELECTRICAL & CONTROLS	13	\$53,250.00	50	0.26	\$13,845.00	\$39,405.00	0.71	\$75,000.00	\$19,500.00	\$55,500.00
2024	WELL NO. 3 PUMP	1	\$72,831.98	20	0.05	\$3,641.60	\$69,190.38	0.97	\$75,000.00	\$3,750.00	\$71,250.00
	WELL NO. 4 (800 gpm)										
1995	WELL HOUSE	30	\$38,773.01	99	0.30	\$11,749.40	\$27,023.61	0.39	\$100,000.00	\$30,303.03	\$69,696.97
1967	WELL NO. 4 WELL AND PIPING	55	\$52,392.64	100	0.55	\$28,815.95	\$23,576.69	0.07	\$700,000.00	\$385,000.00	\$315,000.00
1995	WELL NO. 4 - REDEVELOPMENT AND REPAIR	27	\$29,079.75	50	0.54	\$15,703.07	\$13,376.69	0.39	\$75,000.00	\$40,500.00	\$34,500.00
1995	WELL NO. 4 - ELECTRICAL & CONTROLS	27	\$4,525.60	50	0.54	\$2,443.82	\$2,081.77	0.30	\$15,000.00	\$8,100.00	\$6,900.00
2024	WELL NO. 4- PUMP	1	\$25,853.24	20	1.00	\$25,853.24	\$0.00	0.34	\$75,000.00	\$75,000.00	\$0.00
	WATER TREATMENT PLANT										
1956	BUILDING STRUCTURE	66	\$56,441.72	100	0.66	\$37,251.53	\$19,190.18	0.06	\$1,000,000.00	\$660,000.00	\$340,000.00
2012	PIPING AND VALVES	10	\$530,391.12	100	0.10	\$53,039.11	\$477,352.01	0.71	\$750,000.00	\$75,000.00	\$675,000.00
2012	AERATION	10	\$10,607.82	20	0.50	\$5,303.91	\$5,303.91	0.71	\$15,000.00	\$7,500.00	\$7,500.00
1956	CLARIFIER	66	\$353,594.08	50	1.00	\$353,594.08	\$0.00	0.71	\$500,000.00	\$500,000.00	\$0.00
2012	GENERATOR	10	\$530,391.12	50	0.20	\$106,078.22	\$424,312.90	0.71	\$750,000.00	\$150,000.00	\$600,000.00
2012	ELECTRICAL AND CONTROLS	10	\$530,391.12	50	0.20	\$106,078.22	\$424,312.90	0.71	\$750,000.00	\$150,000.00	\$600,000.00
2012	BACKWASH PUMPS & SYSTEM	10	\$53,039.11	20	0.50	\$26,519.56	\$26,519.56	0.71	\$75,000.00	\$37,500.00	\$37,500.00
2012	BLOWERS	10	\$53,039.11	20	0.50	\$26,519.56	\$26,519.56	0.71	\$75,000.00	\$37,500.00	\$37,500.00
2012	FINISHED WATER/HIGH SERVICE PUMPS & SYSTEM	10	\$141,437.63	20	0.50	\$70,718.82	\$70,718.82	0.71	\$200,000.00	\$100,000.00	\$100,000.00
2012	FILTER TANKS (3)	10	\$530,391.12	50	0.20	\$106,078.22	\$424,312.90	0.71	\$750,000.00	\$150,000.00	\$600,000.00
2012	FILTER MEDIA	10	\$141,437.63	15	0.67	\$94,291.75	\$47,145.88	0.71	\$200,000.00	\$133,333.33	\$66,666.67
2012	DRAIN DOWN SYSTEM	10	\$21,215.64	20	0.50	\$10,607.82	\$10,607.82	0.71	\$30,000.00	\$15,000.00	\$15,000.00
2012	ALUM FEED SYSTEM	10	\$35,359.41	20	0.50	\$17,679.70	\$17,679.70	0.71	\$50,000.00	\$25,000.00	\$25,000.00
2012	SODIUM HYPOCHLORITE FEED SYSTEM	10	\$42,431.29	20	0.50	\$21,215.64	\$21,215.64	0.71	\$60,000.00	\$30,000.00	\$30,000.00
2012	ZINC ORTHOPHOSPHATE FEED SYSTEM	10	\$35,359.41	20	0.50	\$17,679.70	\$17,679.70	0.71	\$50,000.00	\$25,000.00	\$25,000.00
2012	LIME FEED SYSTEM	10	\$70,718.82	20	0.50	\$35,359.41	\$35,359.41	0.71	\$100,000.00	\$50,000.00	\$50,000.00
	MISCELLANEOUS										
1972	MIDDLESEX ROAD STANDPIPE (1.2 MG)	50	\$122,854.56	100	0.50	\$61,427.28	\$61,427.28	0.07	\$1,700,000.00	\$850,000.00	\$850,000.00
1972	RYERS LANE STANDPIPE (1 MG)	50	\$87,804.88	100	0.50	\$43,902.44	\$43,902.44	0.07	\$1,200,000.00	\$600,000.00	\$600,000.00
1990	NJ AMERICAN WATER INTERCONNECTION (12")	32	\$52,120.74	50	0.64	\$33,357.28	\$18,763.47	0.28	\$185,000.00	\$118,400.00	\$66,600.00
2001	ABERDEEN TOWNSHIP INTERCONNECTION (6")	21	\$44,953.56	50	0.42	\$18,880.50	\$26,073.07	0.37	\$120,000.00	\$50,400.00	\$69,600.00
2001	ABERDEEN TOWNSHIP INTERCONNECTION (6")	21	\$44,953.56	50	0.42	\$18,880.50	\$26,073.07	0.37	\$120,000.00	\$50,400.00	\$69,600.00
1997	CUSTOMER WATER METERS- OLD (810)	25	\$183,065.53	20	1.00	\$183,065.53	\$0.00	0.32	\$567,000.00	\$567,000.00	\$0.00
2015	CUSTOMER WATER METERS- NEW (2093)	7	\$928,063.34	20	0.35	\$324,822.17	\$603,241.17	0.63	\$1,465,100.00	\$512,785.00	\$952,315.00
2021	VALVE EXERCISING MACHINE	1	\$70,000.00	20	0.05	\$3,500.00	\$66,500.00	1.00	\$70,000.00	\$3,500.00	\$66,500.00
TOTALS:			\$5,027,933.58			\$1,938,093.96	\$3,089,839.62		\$12,572,100.00	\$5,916,471.36	\$6,655,628.64

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

WATER DISTRIBUTION SYSTEM

WATER MAIN												
YEAR OF PURCHASE	ITEM	LINEAR FEET OF PIPE	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COSTS	DEPRECIATION	RCNLD
2020	16" DIP	60	2	100	\$269.63	\$16,177.61	0.02	\$5.39	\$15,854.05	\$17,400.00	\$348.00	\$17,052.00
2010	16" DIP	60	12	100	\$198.32	\$11,899.23	0.12	\$23.80	\$10,471.32	\$17,400.00	\$2,088.00	\$15,312.00
2000	16" DIP	60	22	100	\$118.90	\$7,134.00	0.22	\$26.16	\$5,564.52	\$17,400.00	\$3,828.00	\$13,572.00
1990	16" DIP	60	32	100	\$95.70	\$5,742.00	0.32	\$30.62	\$3,904.56	\$17,400.00	\$5,568.00	\$11,832.00
1980	16" DIP	259	42	100	\$63.80	\$16,524.20	0.42	\$26.80	\$9,584.04	\$75,110.00	\$31,546.20	\$43,563.80
1970	16" DIP	339	52	100	\$29.92	\$10,143.95	0.52	\$15.56	\$4,869.10	\$98,310.00	\$51,121.20	\$47,188.80
1960	16" DIP	579	62	100	\$21.75	\$12,593.25	0.62	\$13.49	\$4,785.44	\$167,910.00	\$104,104.20	\$63,805.80
1950	16" DIP	180	72	100	\$13.63	\$2,453.40	0.72	\$9.81	\$686.95	\$52,200.00	\$37,584.00	\$14,616.00
2020	12"DIP	419	2	100	\$255.68	\$107,130.16	0.02	\$5.11	\$104,987.56	\$115,225.00	\$2,304.50	\$112,920.50
2010	12"DIP	419	12	100	\$188.06	\$78,798.22	0.12	\$22.57	\$69,342.43	\$115,225.00	\$13,827.00	\$101,398.00
2000	12"DIP	419	22	100	\$112.75	\$47,242.25	0.22	\$24.81	\$36,848.96	\$115,225.00	\$25,349.50	\$89,875.50
1990	12"DIP	419	32	100	\$90.75	\$38,024.25	0.32	\$29.04	\$25,856.49	\$115,225.00	\$36,872.00	\$78,353.00
1980	12"DIP	1,814	42	100	\$60.50	\$109,747.00	0.42	\$25.41	\$63,653.26	\$498,850.00	\$209,517.00	\$289,333.00
1970	12"DIP	2,372	52	100	\$28.38	\$67,306.48	0.52	\$14.76	\$32,307.11	\$652,300.00	\$339,196.00	\$313,104.00
1960	12"DIP	4,046	62	100	\$20.63	\$83,448.75	0.62	\$12.79	\$31,710.53	\$1,112,650.00	\$689,843.00	\$422,807.00
1950	12"DIP	1,256	72	100	\$12.93	\$16,233.80	0.72	\$9.31	\$4,545.46	\$345,400.00	\$248,688.00	\$96,712.00
2020	10" DIP	1,175	2	100	\$241.73	\$284,037.87	0.02	\$4.83	\$278,357.11	\$305,500.00	\$6,110.00	\$299,390.00
2010	10" DIP	1,175	12	100	\$177.80	\$208,920.42	0.12	\$21.34	\$183,849.97	\$305,500.00	\$36,660.00	\$268,840.00
2000	10" DIP	1,175	22	100	\$106.60	\$125,255.00	0.22	\$23.45	\$97,698.90	\$305,500.00	\$67,210.00	\$238,290.00
1990	10" DIP	1,175	32	100	\$85.80	\$100,815.00	0.32	\$27.46	\$68,554.20	\$305,500.00	\$97,760.00	\$207,740.00
1980	10" DIP	5,091	42	100	\$57.20	\$291,205.20	0.42	\$24.02	\$168,899.02	\$1,323,660.00	\$555,937.20	\$767,722.80
1970	10" DIP	6,658	52	100	\$26.83	\$178,618.57	0.52	\$13.95	\$85,736.92	\$1,731,080.00	\$900,161.60	\$830,918.40
1960	10" DIP	11,357	62	100	\$19.50	\$221,461.50	0.62	\$12.09	\$84,155.37	\$2,952,820.00	\$1,830,748.40	\$1,122,071.60
1950	10" DIP	3,524	72	100	\$12.22	\$43,063.28	0.72	\$8.80	\$12,057.72	\$916,240.00	\$659,692.80	\$256,547.20
2020	8" DIP	3,340	2	100	\$232.44	\$776,339.19	0.02	\$4.65	\$760,812.40	\$835,000.00	\$16,700.00	\$818,300.00
2010	8" DIP	3,341	12	100	\$170.97	\$571,197.31	0.12	\$20.52	\$502,653.63	\$835,250.00	\$100,230.00	\$735,020.00
2000	8" DIP	3,340	22	100	\$102.50	\$342,350.00	0.22	\$22.55	\$267,033.00	\$835,000.00	\$183,700.00	\$651,300.00
1990	8" DIP	3,341	32	100	\$82.50	\$275,632.50	0.32	\$26.40	\$187,430.10	\$835,250.00	\$267,280.00	\$567,970.00
1980	8" DIP	14,476	42	100	\$55.00	\$796,180.00	0.42	\$23.10	\$461,784.40	\$3,619,000.00	\$1,519,980.00	\$2,099,020.00
1970	8" DIP	18,929	52	100	\$25.80	\$488,289.24	0.52	\$13.41	\$234,378.84	\$4,732,250.00	\$2,460,770.00	\$2,271,480.00
1960	8" DIP	32,292	62	100	\$18.75	\$605,475.00	0.62	\$11.63	\$230,080.50	\$8,073,000.00	\$5,005,260.00	\$3,067,740.00
1950	8" DIP	10,021	72	100	\$11.75	\$117,746.75	0.72	\$8.46	\$32,969.09	\$2,505,250.00	\$1,803,780.00	\$701,470.00
2020	6" DIP	486	2	100	\$209.19	\$101,667.89	0.02	\$4.18	\$99,634.53	\$109,350.00	\$2,187.00	\$107,163.00
2010	6" DIP	486	12	100	\$153.87	\$74,780.52	0.12	\$18.46	\$65,806.85	\$109,350.00	\$13,122.00	\$96,228.00
2000	6" DIP	487	22	100	\$92.25	\$44,925.75	0.22	\$20.30	\$35,042.09	\$109,575.00	\$24,106.50	\$85,468.50
1990	6" DIP	486	32	100	\$74.25	\$36,085.50	0.32	\$23.76	\$24,538.14	\$109,350.00	\$34,992.00	\$74,358.00
1980	6" DIP	2,107	42	100	\$49.50	\$104,296.50	0.42	\$20.79	\$60,491.97	\$474,075.00	\$199,111.50	\$274,963.50
1970	6" DIP	2,766	52	100	\$23.22	\$64,216.14	0.52	\$12.07	\$30,823.75	\$622,350.00	\$323,622.00	\$298,728.00
1960	6" DIP	4,701	62	100	\$16.88	\$79,329.38	0.62	\$10.46	\$30,145.16	\$1,057,725.00	\$655,789.50	\$401,935.50
1950	6" DIP	1,459	72	100	\$10.58	\$15,428.93	0.72	\$7.61	\$4,320.10	\$328,275.00	\$236,358.00	\$91,917.00
1940	10" CIP	2,336	82	100	\$6.50	\$15,184.00	0.82	\$5.33	\$2,733.12	\$607,360.00	\$498,035.20	\$109,324.80
1910-1920	10" CIP	2,336	107	100	\$2.57	\$6,000.26	1	\$2.57	\$0.00	\$607,360.00	\$607,360.00	\$0.00
1940	8" CIP	1,018	82	100	\$6.25	\$6,362.50	0.82	\$5.13	\$1,145.25	\$254,500.00	\$208,690.00	\$45,810.00
1910-1920	8" CIP	1,018	107	100	\$2.47	\$2,514.27	1	\$2.47	\$0.00	\$254,500.00	\$254,500.00	\$0.00
1940	6" CIP	6,409	82	100	\$5.63	\$36,050.63	0.82	\$4.61	\$6,489.11	\$1,442,025.00	\$1,182,460.50	\$259,564.50
1910-1920	6" CIP	6,409	107	100	\$2.22	\$14,246.13	1	\$2.22	\$0.00	\$1,442,025.00	\$1,442,025.00	\$0.00
1940	4" CIP	1,533	82	100	\$5.00	\$7,665.00	0.82	\$4.10	\$1,379.70	\$306,600.00	\$251,412.00	\$55,188.00
1910-1920	4" CIP	1,533	107	100	\$1.98	\$3,028.98	1	\$1.98	\$0.00	\$306,600.00	\$306,600.00	\$0.00
1970	12"ACP	306	52	100	\$28.38	\$8,682.88	0.52	\$14.76	\$4,167.78	\$84,150.00	\$43,758.00	\$40,392.00
1960	12"ACP	451	62	100	\$20.63	\$9,301.88	0.62	\$12.79	\$3,534.71	\$124,025.00	\$76,895.50	\$47,129.50
1950	12"ACP	209	72	100	\$12.93	\$2,701.33	0.72	\$9.31	\$756.37	\$57,475.00	\$41,382.00	\$16,093.00
1970	10" ACP	1,871	52	100	\$26.83	\$50,194.56	0.52	\$13.95	\$24,093.39	\$486,460.00	\$252,959.20	\$233,500.80
1960	10" ACP	2,757	62	100	\$19.50	\$53,761.50	0.62	\$12.09	\$20,429.37	\$716,820.00	\$444,428.40	\$272,391.60
1950	10" ACP	1,280	72	100	\$12.22	\$15,641.60	0.72	\$8.80	\$4,379.65	\$332,800.00	\$239,616.00	\$93,184.00
1970	8" ACP	1529	52	100	\$15.48	\$23,665.09	0.52	\$8.05	\$11,359.24	\$229,350.00	\$119,262.00	\$110,088.00
1960	8" ACP	2,254	62	100	\$11.25	\$25,357.50	0.62	\$6.98	\$9,635.85	\$338,100.00	\$209,622.00	\$128,478.00
1950	8" ACP	1,046	72	100	\$9.40	\$9,832.40	0.72	\$6.77	\$2,753.07	\$209,200.00	\$150,624.00	\$58,576.00
1970	6" ACP	4125	52	100	\$23.22	\$95,767.01	0.52	\$12.07	\$45,968.17	\$928,125.00	\$482,625.00	\$445,500.00
1960	6" ACP	6079	62	100	\$16.88	\$102,583.13	0.62	\$10.46	\$38,981.59	\$1,367,775.00	\$848,020.50	\$519,754.50
1950	6" ACP	2823	72	100	\$10.58	\$29,853.23	0.72	\$7.61	\$8,358.90	\$635,175.00	\$457,326.00	\$177,849.00
TOTALS:		193,471				\$7,096,309.83		\$2,477,919.03	\$4,618,390.80	\$47,599,505.00	\$26,920,654.40	\$20,678,850.60

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

WATER DISTRIBUTION SYSTEM												
WATER VALVES												
YEAR OF PURCHASE	ITEM	# OF VALVES	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COSTS	DEPRECIATION	RCNLD
1990	16" Valve	1	32	100	\$59.28	\$59.28	0.32	\$18.97	\$40.31	\$6,000.00	\$1,920.00	\$4,080.00
1980	16" Valve	1	42	100	\$1,980.00	\$1,980.00	0.42	\$831.60	\$1,148.40	\$6,000.00	\$2,520.00	\$3,480.00
1970	16" Valve	1	52	100	\$1,320.00	\$1,320.00	0.52	\$686.40	\$633.60	\$6,000.00	\$3,120.00	\$2,880.00
1960	16" Valve	2	62	100	\$619.10	\$1,238.20	0.62	\$383.84	\$470.52	\$12,000.00	\$7,440.00	\$4,560.00
1950	16" Valve	1	72	100	\$450.00	\$450.00	0.72	\$324.00	\$126.00	\$6,000.00	\$4,320.00	\$1,680.00
2020	12" Valve	1	2	100	\$235.00	\$235.00	0.02	\$4.70	\$230.30	\$5,000.00	\$100.00	\$4,900.00
2010	12" Valve	1	12	100	\$3,419.32	\$3,419.32	0.12	\$410.32	\$3,009.00	\$5,000.00	\$600.00	\$4,400.00
2000	12" Valve	1	22	100	\$2,050.00	\$2,050.00	0.22	\$451.00	\$1,599.00	\$5,000.00	\$1,100.00	\$3,900.00
1990	12" Valve	1	32	100	\$1,650.00	\$1,650.00	0.32	\$528.00	\$1,122.00	\$5,000.00	\$1,600.00	\$3,400.00
1980	12" Valve	6	42	100	\$1,100.00	\$6,600.00	0.42	\$462.00	\$3,828.00	\$30,000.00	\$12,600.00	\$17,400.00
1970	12" Valve	8	52	100	\$515.92	\$4,127.33	0.52	\$268.28	\$1,981.12	\$40,000.00	\$20,800.00	\$19,200.00
1960	12" Valve	15	62	100	\$375.00	\$5,625.00	0.62	\$232.50	\$2,137.50	\$75,000.00	\$46,500.00	\$28,500.00
1950	12" Valve	5	72	100	\$235.00	\$1,175.00	0.72	\$169.20	\$329.00	\$25,000.00	\$18,000.00	\$7,000.00
1940	12" Valve	2	82	100	\$125.00	\$250.00	0.82	\$102.50	\$45.00	\$10,000.00	\$8,200.00	\$1,800.00
1910-1920	12" Valve	2	107	100	\$49.40	\$98.79	1.00	\$49.40	\$0.00	\$10,000.00	\$10,000.00	\$0.00
2020	10" Valve	4	2	100	\$3,718.99	\$14,875.96	0.02	\$74.38	\$14,578.44	\$16,000.00	\$320.00	\$15,680.00
2010	10" Valve	4	12	100	\$2,735.46	\$10,941.82	0.12	\$328.25	\$9,628.80	\$16,000.00	\$1,920.00	\$14,080.00
2000	10" Valve	4	22	100	\$1,640.00	\$6,560.00	0.22	\$360.80	\$5,116.80	\$16,000.00	\$3,520.00	\$12,480.00
1990	10" Valve	4	32	100	\$1,320.00	\$5,280.00	0.32	\$422.40	\$3,590.40	\$16,000.00	\$5,120.00	\$10,880.00
1980	10" Valve	22	42	100	\$880.00	\$19,360.00	0.42	\$369.60	\$11,228.80	\$88,000.00	\$36,960.00	\$51,040.00
1970	10" Valve	29	52	100	\$412.73	\$11,969.26	0.52	\$214.62	\$5,745.25	\$116,000.00	\$60,320.00	\$55,680.00
1960	10" Valve	51	62	100	\$300.00	\$15,300.00	0.62	\$186.00	\$5,814.00	\$204,000.00	\$126,480.00	\$77,520.00
1950	10" Valve	15	72	100	\$188.00	\$2,820.00	0.72	\$135.36	\$789.60	\$60,000.00	\$43,200.00	\$16,800.00
1940	10" Valve	7	82	100	\$100.00	\$700.00	0.82	\$82.00	\$126.00	\$28,000.00	\$22,960.00	\$5,040.00
1910-1920	10" Valve	7	107	100	\$39.52	\$276.62	1.00	\$39.52	\$0.00	\$28,000.00	\$28,000.00	\$0.00
2020	8" Valve	9	2	100	\$3,254.12	\$29,287.05	0.02	\$65.08	\$28,701.31	\$31,500.00	\$630.00	\$30,870.00
2010	8" Valve	9	12	100	\$2,393.52	\$21,541.71	0.12	\$287.22	\$18,956.71	\$31,500.00	\$3,780.00	\$27,720.00
2000	8" Valve	9	22	100	\$1,435.00	\$12,915.00	0.22	\$315.70	\$10,073.70	\$31,500.00	\$6,930.00	\$24,570.00
1990	8" Valve	9	32	100	\$1,155.00	\$10,395.00	0.32	\$369.60	\$7,068.60	\$31,500.00	\$10,080.00	\$21,420.00
1980	8" Valve	51	42	100	\$770.00	\$39,270.00	0.42	\$323.40	\$22,776.60	\$178,500.00	\$74,970.00	\$103,530.00
1970	8" Valve	67	52	100	\$361.14	\$24,196.49	0.52	\$187.79	\$11,614.31	\$234,500.00	\$121,940.00	\$112,560.00
1960	8" Valve	117	62	100	\$262.50	\$30,712.50	0.62	\$162.75	\$11,670.75	\$409,500.00	\$253,890.00	\$155,610.00
1950	8" Valve	33	72	100	\$164.50	\$5,428.50	0.72	\$118.44	\$1,519.98	\$115,500.00	\$83,160.00	\$32,340.00
1940	8" Valve	17	82	100	\$87.50	\$1,487.50	0.82	\$71.75	\$267.75	\$59,500.00	\$48,790.00	\$10,710.00
1910-1920	8" Valve	17	107	100	\$34.58	\$587.82	1.00	\$34.58	\$0.00	\$59,500.00	\$59,500.00	\$0.00
2020	6" Valve	3	2	100	\$2,324.37	\$6,973.11	0.02	\$46.49	\$6,833.64	\$7,500.00	\$150.00	\$7,350.00
2010	6" Valve	3	12	100	\$1,709.66	\$5,128.98	0.12	\$205.16	\$4,513.50	\$7,500.00	\$900.00	\$6,600.00
2000	6" Valve	3	22	100	\$1,025.00	\$3,075.00	0.22	\$225.50	\$2,398.50	\$7,500.00	\$1,650.00	\$5,850.00
1990	6" Valve	3	32	100	\$825.00	\$2,475.00	0.32	\$264.00	\$1,683.00	\$7,500.00	\$2,400.00	\$5,100.00
1980	6" Valve	20	42	100	\$550.00	\$11,000.00	0.42	\$231.00	\$6,380.00	\$50,000.00	\$21,000.00	\$29,000.00
1970	6" Valve	27	52	100	\$257.96	\$6,964.87	0.52	\$134.14	\$3,343.14	\$67,500.00	\$35,100.00	\$32,400.00
1960	6" Valve	47	62	100	\$187.50	\$8,812.50	0.62	\$116.25	\$3,348.75	\$117,500.00	\$72,850.00	\$44,650.00
1950	6" Valve	13	72	100	\$117.50	\$1,527.50	0.72	\$84.60	\$427.70	\$32,500.00	\$23,400.00	\$9,100.00
1940	6" Valve	7	82	100	\$62.50	\$437.50	0.82	\$51.25	\$78.75	\$17,500.00	\$14,350.00	\$3,150.00
1910-1920	6" Valve	7	107	100	\$24.70	\$172.89	1.00	\$24.70	\$0.00	\$17,500.00	\$17,500.00	\$0.00
1990	4" Valve	1	32	100	\$660.00	\$660.00	0.32	\$211.20	\$448.80	\$2,000.00	\$640.00	\$1,360.00
1980	4" Valve	1	42	100	\$440.00	\$440.00	0.42	\$184.80	\$255.20	\$2,000.00	\$840.00	\$1,160.00
1970	4" Valve	2	52	100	\$206.37	\$412.73	0.52	\$107.31	\$198.11	\$4,000.00	\$2,080.00	\$1,920.00
1960	4" Valve	4	62	100	\$150.00	\$600.00	0.62	\$93.00	\$228.00	\$8,000.00	\$4,960.00	\$3,040.00
1950	4" Valve	1	72	100	\$94.00	\$94.00	0.72	\$67.68	\$26.32	\$2,000.00	\$1,440.00	\$560.00
TOTALS:		675				\$342,957.23		\$126,826.27	\$216,130.96	\$2,367,500.00	\$1,330,550.00	\$1,036,950.00

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

WATER DISTRIBUTION SYSTEM

FIRE HYDRANTS												
YEAR OF PURCHASE	ITEM	# OF HYDRANTS	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COSTS	DEPRECIATION	RCNLD
2021	Hydrant Assembly	1	1	100	\$ 7,000.00	\$ 7,000.00	0.01	\$ 70.00	\$ 6,930.00	\$ 7,000.00	\$ 70.00	\$ 6,930.00
2020	Hydrant Assembly	7	2	100	\$ 6,334.43	\$ 44,340.98	0.02	\$ 126.69	\$ 43,454.16	\$ 49,000.00	\$ 980.00	\$ 48,020.00
2019	Hydrant Assembly	4	3	100	\$ 6,099.18	\$ 24,396.72	0.03	\$ 182.98	\$ 23,664.82	\$ 28,000.00	\$ 840.00	\$ 27,160.00
2018	Hydrant Assembly	3	4	100	\$ 5,875.41	\$ 17,626.23	0.04	\$ 235.02	\$ 16,921.18	\$ 21,000.00	\$ 840.00	\$ 20,160.00
2017	Hydrant Assembly	7	5	100	\$ 5,628.69	\$ 39,400.82	0.05	\$ 281.43	\$ 37,430.78	\$ 49,000.00	\$ 2,450.00	\$ 46,550.00
2016	Hydrant Assembly	6	6	100	\$ 5,577.05	\$ 33,462.30	0.06	\$ 334.62	\$ 31,454.56	\$ 42,000.00	\$ 2,520.00	\$ 39,480.00
2013	Hydrant Assembly	7	9	100	\$ 4,498.36	\$ 31,488.52	0.09	\$ 404.85	\$ 28,654.56	\$ 49,000.00	\$ 4,410.00	\$ 44,590.00
2012	Hydrant Assembly	1	10	100	\$ 4,349.18	\$ 4,349.18	0.1	\$ 434.92	\$ 3,914.26	\$ 7,000.00	\$ 700.00	\$ 6,300.00
2011	Hydrant Assembly	13	11	100	\$ 4,194.26	\$ 54,525.41	0.11	\$ 461.37	\$ 48,527.61	\$ 91,000.00	\$ 10,010.00	\$ 80,990.00
2010	Hydrant Assembly	2	12	100	\$ 4,136.89	\$ 8,273.77	0.12	\$ 496.43	\$ 7,280.92	\$ 14,000.00	\$ 1,680.00	\$ 12,320.00
2009	Hydrant Assembly	7	13	100	\$ 4,194.26	\$ 29,359.84	0.13	\$ 545.25	\$ 25,543.06	\$ 49,000.00	\$ 6,370.00	\$ 42,630.00
2008	Hydrant Assembly	5	14	100	\$ 4,010.66	\$ 20,053.28	0.14	\$ 561.49	\$ 17,245.82	\$ 35,000.00	\$ 4,900.00	\$ 30,100.00
2007	Hydrant Assembly	13	15	100	\$ 3,838.52	\$ 49,900.82	0.15	\$ 575.78	\$ 42,415.70	\$ 91,000.00	\$ 13,650.00	\$ 77,350.00
2005	Hydrant Assembly	10	17	100	\$ 3,425.41	\$ 34,254.10	0.17	\$ 582.32	\$ 28,430.90	\$ 70,000.00	\$ 11,900.00	\$ 58,100.00
2003	Hydrant Assembly	10	19	100	\$ 3,270.49	\$ 32,704.92	0.19	\$ 621.39	\$ 26,490.98	\$ 70,000.00	\$ 13,300.00	\$ 56,700.00
2002	Hydrant Assembly	10	20	100	\$ 3,241.80	\$ 32,418.03	0.2	\$ 648.36	\$ 25,934.43	\$ 70,000.00	\$ 14,000.00	\$ 56,000.00
2001	Hydrant Assembly	2	21	100	\$ 3,161.48	\$ 6,322.95	0.21	\$ 663.91	\$ 4,995.13	\$ 14,000.00	\$ 2,940.00	\$ 11,060.00
1999	Hydrant Assembly	4	23	100	\$ 2,914.75	\$ 11,659.02	0.23	\$ 670.39	\$ 8,977.44	\$ 28,000.00	\$ 6,440.00	\$ 21,560.00
1997	Hydrant Assembly	6	25	100	\$ 2,725.41	\$ 16,352.46	0.25	\$ 681.35	\$ 12,264.34	\$ 42,000.00	\$ 10,500.00	\$ 31,500.00
1996	Hydrant Assembly	7	26	100	\$ 2,398.36	\$ 16,788.52	0.26	\$ 623.57	\$ 12,423.51	\$ 49,000.00	\$ 12,740.00	\$ 36,260.00
1994	Hydrant Assembly	10	28	100	\$ 2,243.44	\$ 22,434.43	0.28	\$ 628.16	\$ 16,152.79	\$ 70,000.00	\$ 19,600.00	\$ 50,400.00
1993	Hydrant Assembly	22	29	100	\$ 2,209.02	\$ 48,598.36	0.29	\$ 640.61	\$ 34,504.84	\$ 154,000.00	\$ 44,660.00	\$ 109,340.00
1992	Hydrant Assembly	3	30	100	\$ 2,168.85	\$ 6,506.56	0.3	\$ 650.66	\$ 4,554.59	\$ 21,000.00	\$ 6,300.00	\$ 14,700.00
1991	Hydrant Assembly	10	31	100	\$ 2,134.43	\$ 21,344.26	0.31	\$ 661.67	\$ 14,727.54	\$ 70,000.00	\$ 21,700.00	\$ 48,300.00
1990	Hydrant Assembly	5	32	100	\$ 2,082.79	\$ 10,413.93	0.32	\$ 666.49	\$ 7,081.48	\$ 35,000.00	\$ 11,200.00	\$ 23,800.00
1989	Hydrant Assembly	3	33	100	\$ 1,968.03	\$ 5,904.10	0.33	\$ 649.45	\$ 3,955.75	\$ 21,000.00	\$ 6,930.00	\$ 14,070.00
1988	Hydrant Assembly	11	34	100	\$ 1,836.07	\$ 20,196.72	0.34	\$ 624.26	\$ 13,329.84	\$ 77,000.00	\$ 26,180.00	\$ 50,820.00
1987	Hydrant Assembly	14	35	100	\$ 1,761.48	\$ 24,660.66	0.35	\$ 616.52	\$ 16,029.43	\$ 98,000.00	\$ 34,300.00	\$ 63,700.00
1986	Hydrant Assembly	10	36	100	\$ 1,698.36	\$ 16,983.61	0.36	\$ 611.41	\$ 10,869.51	\$ 70,000.00	\$ 25,200.00	\$ 44,800.00
1985	Hydrant Assembly	2	37	100	\$ 1,635.25	\$ 3,270.49	0.37	\$ 605.04	\$ 2,060.41	\$ 14,000.00	\$ 5,180.00	\$ 8,820.00
1984	Hydrant Assembly	10	38	100	\$ 1,549.18	\$ 15,491.80	0.38	\$ 588.69	\$ 9,604.92	\$ 70,000.00	\$ 26,600.00	\$ 43,400.00
1983	Hydrant Assembly	18	39	100	\$ 1,514.75	\$ 27,265.57	0.39	\$ 590.75	\$ 16,632.00	\$ 126,000.00	\$ 49,140.00	\$ 76,860.00
1982	Hydrant Assembly	1	40	100	\$ 1,405.74	\$ 1,405.74	0.4	\$ 562.30	\$ 843.44	\$ 7,000.00	\$ 2,800.00	\$ 4,200.00
1981	Hydrant Assembly	10	41	100	\$ 1,273.77	\$ 12,737.70	0.41	\$ 522.25	\$ 7,515.25	\$ 70,000.00	\$ 28,700.00	\$ 41,300.00
1980	Hydrant Assembly	3	42	100	\$ 1,187.70	\$ 3,563.11	0.42	\$ 498.84	\$ 2,066.61	\$ 21,000.00	\$ 8,820.00	\$ 12,180.00
1979	Hydrant Assembly	4	43	100	\$ 1,113.11	\$ 4,452.46	0.43	\$ 478.64	\$ 2,537.90	\$ 28,000.00	\$ 12,040.00	\$ 15,960.00
1978	Hydrant Assembly	2	44	100	\$ 1,044.26	\$ 2,088.52	0.44	\$ 459.48	\$ 1,169.57	\$ 14,000.00	\$ 6,160.00	\$ 7,840.00
1977	Hydrant Assembly	5	45	100	\$ 958.20	\$ 4,790.98	0.45	\$ 431.19	\$ 2,635.04	\$ 35,000.00	\$ 15,750.00	\$ 19,250.00
1976	Hydrant Assembly	4	46	100	\$ 900.82	\$ 3,603.28	0.46	\$ 414.38	\$ 1,945.77	\$ 28,000.00	\$ 12,880.00	\$ 15,120.00
1975	Hydrant Assembly	2	47	100	\$ 820.49	\$ 1,640.98	0.47	\$ 385.63	\$ 869.72	\$ 14,000.00	\$ 6,580.00	\$ 7,420.00
1974	Hydrant Assembly	9	48	100	\$ 705.74	\$ 6,351.64	0.48	\$ 338.75	\$ 3,302.85	\$ 63,000.00	\$ 30,240.00	\$ 32,760.00
1973	Hydrant Assembly	7	49	100	\$ 573.77	\$ 4,016.39	0.49	\$ 281.15	\$ 2,048.36	\$ 49,000.00	\$ 24,010.00	\$ 24,990.00
1972	Hydrant Assembly	15	50	100	\$ 550.82	\$ 8,262.30	0.5	\$ 275.41	\$ 4,131.15	\$ 105,000.00	\$ 52,500.00	\$ 52,500.00
1971	Hydrant Assembly	8	51	100	\$ 516.39	\$ 4,131.15	0.51	\$ 263.36	\$ 2,024.26	\$ 56,000.00	\$ 28,560.00	\$ 27,440.00
1970	Hydrant Assembly	2	52	100	\$ 459.02	\$ 918.03	0.52	\$ 238.69	\$ 440.66	\$ 14,000.00	\$ 7,280.00	\$ 6,720.00
1969	Hydrant Assembly	2	53	100	\$ 413.11	\$ 826.23	0.53	\$ 218.95	\$ 388.33	\$ 14,000.00	\$ 7,420.00	\$ 6,580.00
1968	Hydrant Assembly	5	54	100	\$ 390.16	\$ 1,950.82	0.54	\$ 210.69	\$ 897.38	\$ 35,000.00	\$ 18,900.00	\$ 16,100.00
1967	Hydrant Assembly	9	55	100	\$ 367.21	\$ 3,304.92	0.55	\$ 201.97	\$ 1,487.21	\$ 63,000.00	\$ 34,650.00	\$ 28,350.00
1966	Hydrant Assembly	6	56	100	\$ 350.00	\$ 2,100.00	0.56	\$ 196.00	\$ 924.00	\$ 42,000.00	\$ 23,520.00	\$ 18,480.00
1965	Hydrant Assembly	5	57	100	\$ 362.50	\$ 1,812.50	0.57	\$ 206.63	\$ 779.38	\$ 35,000.00	\$ 19,950.00	\$ 15,050.00
1964	Hydrant Assembly	2	58	100	\$ 362.50	\$ 725.00	0.58	\$ 210.25	\$ 304.50	\$ 14,000.00	\$ 8,120.00	\$ 5,880.00
TOTALS:		344				\$806,430.12		\$167,661.51	\$638,768.61	\$2,408,000.00	\$747,110.00	\$1,660,890.00

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

SANITARY SYSTEM FACILITIES

YEAR OF PURCHASE		AGE (YEARS)	ORIGINAL COST	LIFE	DEPRECIATION FACTOR	DEPRECIATION COST	OCLD	original cost factor	REPLACEMENT COST	ACCUMULATED DEPRECIATION	RCNLD
	NEW BRUNSWICK AVE PUMP STATION										
1971	LIFT STATION DOGHOUSE STRUCTURE	51	\$7,730.06	100	0.51	\$3,942.33	\$3,787.73	0.10	\$75,000.00	\$38,250.00	\$36,750.00
1971	WET WELL	51	\$25,293.59	50	1.00	\$25,293.59	\$0.00	0.07	\$350,000.00	\$350,000.00	\$0.00
1971	PUMPS	51	\$7,226.74	25	1.00	\$7,226.74	\$0.00	0.07	\$100,000.00	\$100,000.00	\$0.00
1971	ELECTRICAL AND CONTROLS	51	\$6,348.12	25	1.00	\$6,348.12	\$0.00	0.06	\$100,000.00	\$100,000.00	\$0.00
1971	GENERATOR	51	\$5,420.05	50	1.00	\$5,420.05	\$0.00	0.07	\$75,000.00	\$75,000.00	\$0.00
	MATAWAN AVE PUMP STATION										
1960	WET WELL	62	\$114,543.81	50	0.00	\$0.00	\$0.00	0.29	\$400,000.00	\$0.00	\$400,000.00
1960	PUMPS	62	\$28,635.95	25	1.00	\$28,635.95	\$0.00	0.29	\$100,000.00	\$100,000.00	\$0.00
1960	ELECTRICAL AND CONTROLS	62	\$28,635.95	25	1.00	\$28,635.95	\$0.00	0.29	\$100,000.00	\$100,000.00	\$0.00
1960	GENERATOR	62	\$16,894.20	50	0.00	\$0.00	\$16,894.20	0.23	\$75,000.00	\$0.00	\$75,000.00
	LAKESIDE DRIVE PUMP STATION										
1992	WET WELL	30	\$123,938.57	50	0.60	\$74,363.14	\$49,575.43	0.31	\$400,000.00	\$240,000.00	\$160,000.00
1992	PUMPS	30	\$24,232.08	25	1.00	\$24,232.08	\$0.00	0.24	\$100,000.00	\$100,000.00	\$0.00
1992	ELECTRICAL AND CONTROLS	30	\$24,232.08	25	1.00	\$24,232.08	\$0.00	0.24	\$100,000.00	\$100,000.00	\$0.00
1992	GENERATOR	30	\$23,238.48	50	0.60	\$13,943.09	\$9,295.39	0.31	\$75,000.00	\$45,000.00	\$30,000.00
	SOMERSET PLACE PUMP STATION										
1989	WET WELL	33	\$143,179.77	50	0.66	\$94,498.64	\$48,681.12	0.29	\$500,000.00	\$330,000.00	\$170,000.00
2002	PUMPS	20	\$54,163.82	25	0.80	\$43,331.06	\$10,832.76	0.36	\$150,000.00	\$120,000.00	\$30,000.00
2002	ELECTRICAL AND CONTROLS	20	\$72,218.43	25	0.80	\$57,774.74	\$14,443.69	0.36	\$200,000.00	\$160,000.00	\$40,000.00
2002	IMPROVEMENTS	20	\$585,333.33	20	1.00	\$585,333.33	\$0.00	0.48	\$1,210,778.34	\$1,210,778.34	\$0.00
1989	GENERATOR	33	\$28,635.95	50	0.66	\$18,899.73	\$9,736.22	0.29	\$100,000.00	\$66,000.00	\$34,000.00
	VICTORIA COURT PUMP STATION										
1992	WET WELL & EQUIPMENT	30	\$123,938.57	50	0.60	\$74,363.14	\$49,575.43	0.31	\$400,000.00	\$240,000.00	\$160,000.00
2002	PUMPS	20	\$36,109.22	25	0.80	\$28,887.37	\$7,221.84	0.36	\$100,000.00	\$80,000.00	\$20,000.00
2002	ELECTRICAL AND CONTROLS	20	\$36,109.22	25	0.80	\$28,887.37	\$7,221.84	0.36	\$100,000.00	\$80,000.00	\$20,000.00
1992	GENERATOR	30	\$23,238.48	50	0.60	\$13,943.09	\$9,295.39	0.31	\$75,000.00	\$45,000.00	\$30,000.00
2002	IMPROVEMENTS	20	\$292,666.67	30	0.67	\$195,111.11	\$97,555.56	0.48	\$605,389.17	\$403,592.78	\$201,796.39
	CROSS ROAD PUMP STATION										
1989	WET WELL	33	\$100,225.84	50	0.66	\$66,149.05	\$34,076.78	0.29	\$350,000.00	\$231,000.00	\$119,000.00
1989	PUMPS	33	\$54,163.82	25	1.00	\$54,163.82	\$0.00	0.36	\$150,000.00	\$150,000.00	\$0.00
1989	ELECTRICAL AND CONTROLS	33	\$28,635.95	25	1.00	\$28,635.95	\$0.00	0.29	\$100,000.00	\$100,000.00	\$0.00
2021	GENERATOR	1	\$100,000.00	50	0.02	\$2,000.00	\$98,000.00	1.00	\$100,000.00	\$2,000.00	\$98,000.00

	BUTTONWOOD PUMP STATION										
1960	LIFT STATION BUILDING	62	\$13,251.53	100	0.62	\$8,215.95	\$5,035.58	0.07	\$200,000.00	\$124,000.00	\$76,000.00
1960	WET WELL	62	\$144,896.12	50	1.00	\$144,896.12	\$0.00	0.36	\$400,000.00	\$400,000.00	\$0.00
1998	PUMPS	24	\$72,448.06	25	0.96	\$69,550.14	\$2,897.92	0.36	\$200,000.00	\$192,000.00	\$8,000.00
1960	ELECTRICAL AND CONTROLS	62	\$66,757.68	25	1.00	\$66,757.68	\$0.00	0.33	\$200,000.00	\$200,000.00	\$0.00
1998	GENERATOR	24	\$36,224.03	50	0.48	\$17,387.53	\$18,836.50	0.36	\$100,000.00	\$48,000.00	\$52,000.00
	OAK KNOLL										
1987	WET WELL	35	\$95,799.46	50	0.70	\$67,059.62	\$28,739.84	0.27	\$350,000.00	\$245,000.00	\$105,000.00
1987	PUMPS	35	\$27,371.27	25	1.00	\$27,371.27	\$0.00	0.27	\$100,000.00	\$100,000.00	\$0.00
1987	ELECTRICAL AND CONTROLS	35	\$18,907.85	25	1.00	\$18,907.85	\$0.00	0.19	\$100,000.00	\$100,000.00	\$0.00
1987	GENERATOR	35	\$20,528.46	50	0.70	\$14,369.92	\$6,158.54	0.27	\$75,000.00	\$52,500.00	\$22,500.00
	CENTER AVE										
1992	WET WELL	30	\$250,248.26	50	0.60	\$150,148.96	\$100,099.30	0.83	\$300,000.00	\$180,000.00	\$120,000.00
2015	PUMPS	7	\$83,416.09	25	0.28	\$23,356.50	\$60,059.58	0.83	\$100,000.00	\$28,000.00	\$72,000.00
2015	ELECTRICAL AND CONTROLS	7	\$63,549.49	25	0.28	\$17,793.86	\$45,755.63	0.64	\$100,000.00	\$28,000.00	\$72,000.00
1992	GENERATOR	30	\$23,238.48	50	0.60	\$13,943.09	\$9,295.39	0.31	\$75,000.00	\$45,000.00	\$30,000.00
	CHRISTINE COURT										
1997	WET WELL	25	\$70,280.04	50	0.50	\$35,140.02	\$35,140.02	0.35	\$200,000.00	\$100,000.00	\$100,000.00
1997	PUMPS	25	\$26,355.01	25	1.00	\$26,355.01	\$0.00	0.35	\$75,000.00	\$75,000.00	\$0.00
1997	ELECTRICAL AND CONTROLS	25	\$24,215.02	25	1.00	\$24,215.02	\$0.00	0.32	\$75,000.00	\$75,000.00	\$0.00
1997	GENERATOR	25	\$26,355.01	50	0.50	\$13,177.51	\$13,177.51	0.35	\$75,000.00	\$37,500.00	\$37,500.00
	MISCELLANEOUS										
2020	JET VAC TRUCK	2	\$77,687.44	30	0.07	\$5,179.16	\$72,508.28	0.97	\$80,000.00	\$5,333.33	\$74,666.67
TOTALS:			\$3,256,518.06			\$2,278,076.77	\$863,897.48		\$8,996,167.51	\$6,601,954.46	\$2,394,213.06

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

SANITARY CONVEYANCE

SANITARY MAIN												
YEAR OF PURCHASE	ITEM	LINEAR FEET OF PIPE	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COST	DEPRECIATION	RCNLD
1960	18" VCP	592	62	100	\$22.50	\$13,320.00	0.62	\$13.95	\$5,061.60	\$177,600.00	\$110,112.00	\$67,488.00
1990	12" VCP	196	32	100	\$92.40	\$18,110.40	0.32	\$29.57	\$12,315.07	\$54,880.00	\$17,561.60	\$37,318.40
1980	12" VCP	882	42	100	\$61.60	\$54,331.20	0.42	\$25.87	\$31,512.10	\$246,960.00	\$103,723.20	\$143,236.80
1970	12" VCP	1156	52	100	\$28.89	\$33,398.38	0.52	\$15.02	\$16,031.22	\$323,680.00	\$168,313.60	\$155,366.40
1960	12" VCP	1979	62	100	\$21.00	\$41,559.00	0.62	\$13.02	\$15,792.42	\$554,120.00	\$343,554.40	\$210,565.60
1950	12" VCP	607	72	100	\$13.16	\$7,988.12	0.72	\$9.48	\$2,236.67	\$169,960.00	\$122,371.20	\$47,588.80
1940	12" VCP	333	82	100	\$7.00	\$2,331.00	0.82	\$5.74	\$419.58	\$93,240.00	\$76,456.80	\$16,783.20
1910-1920	12" VCP	333	107	100	\$2.77	\$921.14	1.00	\$2.77	\$0.00	\$93,240.00	\$93,240.00	\$0.00
1990	10" VCP	424	32	100	\$85.80	\$36,379.20	0.32	\$27.46	\$24,737.86	\$110,240.00	\$35,276.80	\$74,963.20
1980	10" VCP	1906	42	100	\$57.20	\$109,023.20	0.42	\$24.02	\$63,233.46	\$495,560.00	\$208,135.20	\$287,424.80
1970	10" VCP	2499	52	100	\$26.83	\$67,042.33	0.52	\$13.95	\$32,180.32	\$649,740.00	\$337,864.80	\$311,875.20
1960	10" VCP	4278	62	100	\$19.50	\$83,421.00	0.62	\$12.09	\$31,699.98	\$1,112,280.00	\$689,613.60	\$422,666.40
1950	10" VCP	1313	72	100	\$12.22	\$16,044.86	0.72	\$8.80	\$4,492.56	\$341,380.00	\$245,793.60	\$95,586.40
1940	10" VCP	720	82	100	\$6.50	\$4,680.00	0.82	\$5.33	\$842.40	\$187,200.00	\$153,504.00	\$33,696.00
1910-1920	10" VCP	720	107	100	\$2.57	\$1,849.40	1.00	\$2.57	\$0.00	\$187,200.00	\$187,200.00	\$0.00
1990	8" VCP	2432	32	100	\$79.20	\$192,614.40	0.32	\$25.34	\$130,977.79	\$583,680.00	\$186,777.60	\$396,902.40
1980	8" VCP	10945	42	100	\$52.80	\$577,896.00	0.42	\$22.18	\$335,179.68	\$2,626,800.00	\$1,103,256.00	\$1,523,544.00
1970	8" VCP	14350	52	100	\$24.76	\$355,363.34	0.52	\$12.88	\$170,574.40	\$3,444,000.00	\$1,790,880.00	\$1,653,120.00
1960	8" VCP	24566	62	100	\$18.00	\$442,188.00	0.62	\$11.16	\$168,031.44	\$5,895,840.00	\$3,655,420.80	\$2,240,419.20
1950	8" VCP	7540	72	100	\$11.28	\$85,051.20	0.72	\$8.12	\$23,814.34	\$1,809,600.00	\$1,302,912.00	\$506,688.00
1940	8" VCP	4135	82	100	\$6.00	\$24,810.00	0.82	\$4.92	\$4,465.80	\$992,400.00	\$813,768.00	\$178,632.00
1910-1920	8" VCP	4135	107	100	\$2.37	\$9,804.17	1.00	\$2.37	\$0.00	\$992,400.00	\$992,400.00	\$0.00
1960	36" RCP	1455	62	100	\$24.00	\$34,920.00	0.62	\$14.88	\$13,269.60	\$465,600.00	\$288,672.00	\$176,928.00
1960	18" RCP	191	62	100	\$22.50	\$4,297.50	0.62	\$13.95	\$1,633.05	\$57,300.00	\$35,526.00	\$21,774.00
1940	12" RCP	166	82	100	\$7.00	\$1,162.00	0.82	\$5.74	\$209.16	\$46,480.00	\$38,113.60	\$8,366.40
1940	8" RCP	230	82	100	\$6.00	\$1,380.00	0.82	\$4.92	\$248.40	\$55,200.00	\$45,264.00	\$9,936.00
1980	10" PVC	335	42	100	\$57.20	\$19,162.00	0.42	\$24.02	\$11,113.96	\$87,100.00	\$36,582.00	\$50,518.00
2020	8" PVC	395	2	100	\$223.14	\$88,140.07	0.02	\$4.46	\$86,377.26	\$94,800.00	\$1,896.00	\$92,904.00
2010	8" PVC	395	12	100	\$164.13	\$64,830.30	0.12	\$19.70	\$57,050.66	\$94,800.00	\$11,376.00	\$83,424.00
2000	8" PVC	395	22	100	\$98.40	\$38,868.00	0.22	\$21.65	\$30,317.04	\$94,800.00	\$20,856.00	\$73,944.00
1990	8" PVC	395	32	100	\$79.20	\$31,284.00	0.32	\$25.34	\$21,273.12	\$94,800.00	\$30,336.00	\$64,464.00
1980	8" PVC	2368	42	100	\$52.80	\$125,030.40	0.42	\$22.18	\$72,517.63	\$568,320.00	\$238,694.40	\$329,625.60
1970	8" PVC	3157	52	100	\$24.76	\$78,179.93	0.52	\$12.88	\$37,526.37	\$757,680.00	\$393,993.60	\$363,686.40
1960	8" PVC	7102	62	100	\$18.00	\$127,836.00	0.62	\$11.16	\$48,577.68	\$1,704,480.00	\$1,056,777.60	\$647,702.40
1950	8" PVC	1578	72	100	\$11.28	\$17,799.84	0.72	\$8.12	\$4,983.96	\$378,720.00	\$272,678.40	\$106,041.60
1980	4" PVC	2799	42	100	\$44.00	\$123,156.00	0.42	\$18.48	\$71,430.48	\$559,800.00	\$235,116.00	\$324,684.00
1980	2" PVC	1586	42	100	\$39.60	\$62,805.60	0.42	\$16.63	\$36,427.25	\$285,480.00	\$119,901.60	\$165,578.40
1940	12" CIP	111	82	100	\$21.00	\$2,331.00	0.82	\$17.22	\$419.58	\$31,080.00	\$25,485.60	\$5,594.40

1910-1920	12" CIP	111	107	100	\$223.14	\$24,768.47	1.00	\$223.14	\$0.00	\$26,640.00	\$26,640.00	\$0.00
1940	8" CIP	879	82	100	\$6.00	\$5,274.00	0.82	\$4.92	\$949.32	\$210,960.00	\$172,987.20	\$37,972.80
1910-1920	8" CIP	879	107	100	\$2.37	\$2,084.13	1.00	\$2.37	\$0.00	\$210,960.00	\$210,960.00	\$0.00
1940	6" CIP	2667	82	100	\$5.50	\$14,668.50	0.82	\$4.51	\$2,640.33	\$586,740.00	\$481,126.80	\$105,613.20
1910-1920	6" CIP	2667	107	100	\$2.17	\$5,796.55	1.00	\$2.17	\$0.00	\$586,740.00	\$586,740.00	\$0.00
1940	4" CIP	971	82	100	\$5.00	\$4,855.00	0.82	\$4.10	\$873.90	\$194,200.00	\$159,244.00	\$34,956.00
1910-1920	4" CIP	971	107	100	\$1.98	\$1,918.55	1.00	\$1.98	\$0.00	\$194,200.00	\$194,200.00	\$0.00
1960	18" ACP	43	62	100	\$22.50	\$967.50	0.62	\$13.95	\$367.65	\$12,900.00	\$7,998.00	\$4,902.00
1970	12" ACP	1281	52	100	\$28.89	\$37,009.79	0.52	\$15.02	\$17,764.70	\$358,680.00	\$186,513.60	\$172,166.40
1960	12" ACP	1888	62	100	\$21.00	\$39,648.00	0.62	\$13.02	\$15,066.24	\$528,640.00	\$327,756.80	\$200,883.20
1950	12" ACP	876	72	100	\$13.16	\$11,528.16	0.72	\$9.48	\$3,227.88	\$245,280.00	\$176,601.60	\$68,678.40
1970	10" ACP	2261	52	100	\$26.83	\$60,657.34	0.52	\$13.95	\$29,115.52	\$587,860.00	\$305,687.20	\$282,172.80
1960	10" ACP	3332	62	100	\$19.50	\$64,974.00	0.62	\$12.09	\$24,690.12	\$866,320.00	\$537,118.40	\$329,201.60
1950	10" ACP	1547	72	100	\$12.22	\$18,904.34	0.72	\$8.80	\$5,293.22	\$402,220.00	\$289,598.40	\$112,621.60
1970	8" ACP	17,120	52	100	\$24.76	\$423,959.60	0.52	\$12.88	\$203,500.61	\$4,108,800.00	\$2,136,576.00	\$1,972,224.00
1960	8" ACP	25230	62	100	\$18.00	\$454,140.00	0.62	\$11.16	\$172,573.20	\$6,055,200.00	\$3,754,224.00	\$2,300,976.00
1950	8" ACP	11714	72	100	\$11.28	\$132,133.92	0.72	\$8.12	\$36,997.50	\$2,811,360.00	\$2,024,179.20	\$787,180.80
1970	4" ACP	1,556	52	100	\$20.64	\$32,110.65	0.52	\$10.73	\$15,413.11	\$311,200.00	\$161,824.00	\$149,376.00
1960	4" ACP	2,293	62	100	\$15.00	\$34,395.00	0.62	\$9.30	\$13,070.10	\$458,600.00	\$284,332.00	\$174,268.00
1950	4" ACP	1065	72	100	\$9.40	\$10,011.00	0.72	\$6.77	\$2,803.08	\$213,000.00	\$153,360.00	\$59,640.00
TOTALS:		188,050				\$4,379,113.48		\$2,267,793.11	\$2,111,320.36	\$45,488,940.00	\$27,767,071.20	\$17,721,868.80

BOROUGH OF MATAWAN
WATER & SANITARY SYSTEM
VALUATION ANALYSIS
JULY 2025

SANITARY CONVEYANCE

SANITARY MANHOLES												
YEAR OF PURCHASE	ITEM	# OF MANHOLES	AGE (YEARS)	LIFE	ORIGINAL UNIT COST	ORIGINAL COST	DEPRECIATION FACTOR	DEPRECIATION COST/UNIT	OCLD	REPLACEMENT COST	DEPRECIATION	RCNLD
2020	Manhole	20	2	100	\$ 4,648.74	\$ 92,974.75	0.02	\$ 92.97	\$91,115.26	\$100,000.00	\$2,000.00	\$98,000.00
2010	Manhole	20	12	100	\$ 3,419.32	\$ 68,386.39	0.12	\$ 410.32	\$60,180.02	\$100,000.00	\$12,000.00	\$88,000.00
2000	Manhole	20	22	100	\$ 2,050.00	\$ 41,000.00	0.22	\$ 451.00	\$31,980.00	\$100,000.00	\$22,000.00	\$78,000.00
1990	Manhole	20	32	100	\$ 1,650.00	\$ 33,000.00	0.32	\$ 528.00	\$22,440.00	\$100,000.00	\$32,000.00	\$68,000.00
1980	Manhole	121	42	100	\$ 1,100.00	\$ 133,100.00	0.42	\$ 462.00	\$77,198.00	\$605,000.00	\$254,100.00	\$350,900.00
1970	Manhole	160	52	100	\$ 515.92	\$ 82,546.65	0.52	\$ 268.28	\$39,622.39	\$800,000.00	\$416,000.00	\$384,000.00
1960	Manhole	280	62	100	\$ 375.00	\$ 105,000.00	0.62	\$ 232.50	\$39,900.00	\$1,400,000.00	\$868,000.00	\$532,000.00
1950	Manhole	80	72	100	\$ 235.00	\$ 18,800.00	0.72	\$ 169.20	\$5,264.00	\$400,000.00	\$288,000.00	\$112,000.00
1940	Manhole	40	82	100	\$ 125.00	\$ 5,000.00	0.82	\$ 102.50	\$900.00	\$200,000.00	\$164,000.00	\$36,000.00
1910-1920	Manhole	40	107	100	\$ 49.40	\$ 1,975.85	1	\$ 49.40	\$0.00	\$200,000.00	\$200,000.00	\$0.00
TOTALS:		801			\$14,168.37	\$581,783.64		\$213,183.97	\$368,599.67	\$4,005,000.00	\$2,258,100.00	\$1,746,900.00

EMERGENT CONDITION ANALYSIS

PREPARED FOR

Borough of Matawan
201 Broad Street
Matawan, New Jersey 07747

PREPARED BY

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July 2025

BOROUGH OF MATAWAN
EMERGENT CONDITION EVALUATION

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Background

In 2015, P.L. 2015, Chapter 18, cited as the Water Infrastructure Protection Act (WIPA) was enacted. The WIPA established legislation which declared that the maintenance and operation of water and wastewater treatment and conveyance systems is vital to ensure the protection of water quality and clean drinking water in the State of New Jersey.

In addition, the legislature declared that there are public water and wastewater systems in the State which present risks to the integrity of drinking water and the environment because of issues such as aging infrastructure systems and deterioration of the physical assets of the system.

As such, the law identified and defined conditions in a public utility system which may be classified as an “emergent condition”. An emergent condition for a utility system shall exist if the system meets one (1) of the following conditions as defined by the law:

1. **Emergent Condition #1:** The system is located in an area designated by the Department of Environmental Protection as an Area of Critical Water Supply I or II;
2. **Emergent Condition #2:** The owner of the system is a significant non-complier, as defined in P.L. 1977, c.7 and has been the subject of formal enforcement action initiated by the department or is substantially out of compliance with an Administrative Consent Order, settlement agreement, or judicial consent order entered into with the department. The department is defined as the New Jersey Department of Environmental Protection (NJDEP);
3. **Emergent Condition #3:** There is a present deficiency or violation of maximum contaminant levels established pursuant to the “Safe Drinking Water Act” concerning the availability of potable water or concerning the provisions of water at adequate volume or pressure or distribution or treatment of wastewater;
4. **Emergent Condition #4:** There is a demonstrated lack of historical investment, repair or sustainable maintenance as determined by the department or material damage to the infrastructure of the system; or
5. **Emergent Condition #5:** The system owner lacks the financial, technical or managerial capacity to adequately address any of the foregoing on a sustainable basis or own and operate the system in a way that supports economic activity in the municipality on a sustainable basis.

BOROUGH OF MATAWAN EMERGENT CONDITION EVALUATION

Overview:

In 2022, the Borough of Matawan authorized Remington & Vernick Engineers (RVE) to perform an evaluation of the existing water and sewer systems for the purpose of determining if the systems potentially meet the criteria of Emergent Conditions discussed above.

The Borough has provided available copies of current records as well as allowed RVE to tour their facilities and interview utility personnel. RVE has reviewed this information in conjunction with the subsequently developed asset evaluation & capital improvements plan, rate study, and valuation reports, as well as with the New Jersey Water Supply Plan, Water Infrastructure Protection Act, Water Pollution Control Act, Safe Drinking Water Act Rules, Rules and Regulations Governing the Licensing of Water Supply and Wastewater Treatment System Operators, Water Supply Allocation Permits Rules, and the NJDEP NJPDES Rules.

Upon review of the Borough's water and sewer utilities and the above discussed documents, it is our opinion that the Borough of Matawan meets the requirements of Emergent Conditions #1, #4, & #5 as defined in the Water Infrastructure Protection Act (WIPA).

System Description:

The Borough of Matawan (Borough) has a population of 9,566 persons (as per 2020 US Census; www.census.gov) and occupies some 2.4 square miles. The Borough owns and operates the existing potable water supply, water treatment plant, water distribution system, a series of sanitary sewer lift stations and a sanitary sewer conveyance system. These systems include the following:

Water:

- One (1) Active Water Treatment Plant (WTP),
- One (1) 1.0 Million Gallon Standpipe,
- One (1) 1.0 Million Gallon Standpipe,
- Well No. 3 rated for 800 GPD capacity,
- Well No. 4 rated for 800 GPD capacity
- One (1) interconnection with New Jersey American Water
- Two (2) Emergency Interconnections with Township of Aberdeen,
- Estimated 36.6 miles of water main, ranging in size from 1" to 16" diameter,
- Approximately 2,886 water service connections,
- 933 Valves, ranging in size from 4" to 16" diameter,
- 348 Fire Hydrants

Sewer:

BOROUGH OF MATAWAN EMERGENT CONDITION EVALUATION

- Ten (10) Sanitary Sewer Lift Stations: Somerset Place, Victoria Court, Center Avenue, New Brunswick Avenue, Buttonwood Road, Lakeside, Christine Court, Cross Road, Matawan Avenue, and Oak Knoll Drive,
- Estimated 35.6 miles of sanitary sewer main, ranging in size from 2" to 36" diameter,
- 801 Sanitary Manholes,
- Estimated 2,886 service laterals.

Emergent Conditions Analysis:

Emergent Condition #1

Emergent Condition #1 provides for systems geographically located within either of the two Areas of Critical Water Supply Concern (ACWSC) established by the DEP. Critical Area I include portions of Middlesex, Monmouth, and Ocean counties. Critical Area II includes portions of Camden, Gloucester, Salem, Cumberland, Atlantic, Burlington, Monmouth and Ocean counties.

Condition #1 Analysis: This condition is met if the system, or a portion thereof, contains any assets within the geographic delineation of the ACWSC. Allowable assets include water source locations (intakes, wells), treatment facilities, water storage, and/or distribution infrastructure. As the Borough of Matawan, in its entirety, is located within Critical Area #1, the system meets the requirements of Emergent Condition #1.

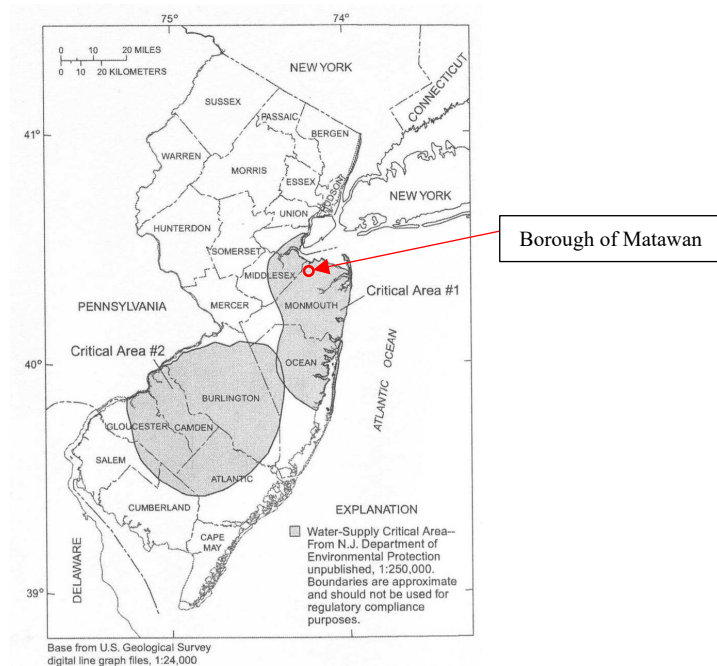


Figure 1: Locations of New Jersey Water-Supply Critical Areas

BOROUGH OF MATAWAN
EMERGENT CONDITION EVALUATION

Emergent Condition #2

Emergent Condition #2 allows for a system whose owner is either (1) a significant noncomplier of their NJDPES permit; and/or (2) has an outstanding formal administrative enforcement action initiated by DEP; and/or (3) is substantially out of compliance with a negotiated enforcement action.

The Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq, defines “Significant noncomplier” as follows:

“Significant noncomplier” means any person who commits a serious violation for the same hazardous pollutant or the same nonhazardous pollutant, at the same discharge point source, in any two months of any six-month period, or who exceeds the monthly average or, in a case of pollution for which no monthly average has been established, the monthly average of the daily maximums for an effluent limitation for the same pollutant at the same discharge point source by any amount in any four months of any six-month period, or who fails to submit a complete discharge monitoring report in any two months of any six-month period. A local agency shall not be deemed a “significant noncomplier” due to an exceedance of an effluent limitation established in a permit for flow.

Condition #2 Analysis: The Borough has reported that they have not been classified as a significant noncomplier by the DEP; that there are no outstanding formal administrative enforcement actions; and that there are no outstanding negotiated enforcement actions. As such, the system does not meet the requirements of Emergent Condition #2.

Emergent Condition #3

Emergent Condition #3 addresses systems which have outstanding deficiencies or violations for collection, conveyance or treatment of wastewater related to their ability to function in conformance with applicable wastewater standards/regulations including but not limited to the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., treatment works approvals, NJPDES permits, etc.

Condition #3 Analysis: The Borough has reported that there are no outstanding deficiencies which would affect their compliance with governing regulations or their permits. Similarly, the Borough has reported that they are not currently in receipt of any violations issued by the DEP. As such, the system does not meet the requirements of Emergent Conditions #3.

Emergent Condition #4

Emergent Condition #4 provides for systems which have either (1) a demonstrated lack of historical investment, repair or sustainable maintenance; and/or (2) material damage to the infrastructure of the system.

As per the NJDEP’s *Guidance Document – Municipal Certification of Emergent Conditions*, it is understood that the DEP considers these criteria to mean the following:

BOROUGH OF MATAWAN
EMERGENT CONDITION EVALUATION

- 1) “Lack of historical investment, repair or sustainable maintenance”: failure to operate and maintain the system in conformity with the following:
 - a. N.J.A.C. 7:10 - Safe Drinking Water Act Rules, Sections:
 - i. Section 2.7 - Managerial and Technical Compliance of Water Systems;
 - ii. Section 13 - Standards for Technical, Managerial and Financial Capacity of Public Community and Noncommunity Water Systems; and
 - iii. Section 11.5(c)6 - Permit requirement: application contents, map of system.
 - b. N.J.A.C. 7:10A - Rules and Regulations Governing the Licensing of Water Supply and Wastewater Treatment System Operators:
 - i. Section 1.12,
 - c. N.J.A.C. 7:19 - Water Supply Allocation Permit Rules:
 - i. Section 6.6 – Rehabilitation.
 - d. N.J.A.C. 7:14A - NJPDES Rules:
 - i. Section 6.12 – Operation, Maintenance and Emergency Conditions,
 - ii. Section 22.5 – Treatment Works Approval, and
 - iii. Section 23.5(b)6 - Reports.

Refer to Appendix A for the full text of the above referenced sections.

- 2) “Material damage to the assets of the system”: includes physical damage or avoidable deterioration of assets such as wells, intakes, treatment units, transmission lines, storage units, and any other appurtenant components of the system or personnel assets that prevent a system from complying with all drinking water or wastewater standards/requirements.

Condition #4 Analysis:

Like many municipalities of similar size, the Borough has had to do much with limited resources. The Borough currently budgets a combined \$1,000,000 bi-annually for capital improvements, maintenance, and repairs to the water utility and wastewater collection systems. This budget allows the Public Works Department to inspect and improve critical elements of each the systems however portions of the aboveground and belowground assets require significant rehabilitation or replacement.

The sections below discuss two key areas requiring attention, pump stations and underground infrastructure. These assets display avoidable deterioration as a result of a lack of historical investment. Full replacement or significant rehabilitation of each is necessary to provide ongoing, sustainable service.

BOROUGH OF MATAWAN

EMERGENT CONDITION EVALUATION

The proposed 10-year capital improvements plan currently under review by the Borough provides for the minimum anticipated maintenance, upgrades and long-term planning work necessary to maintain the systems. The anticipated costs associated with these rehabilitations and/or replacements far exceed the resources currently available and are estimated to be \$3,600,000 per year for the duration of the plan.

Pump Stations:

The Borough operates ten (10) sanitary sewer lift stations. Of these, five (5) have been renovated or replaced within the past 20-years. These stations, Summerset Place, Center Avenue, Buttonwood Road, Oak Knoll Drive, & Christine Court are in serviceable overall condition and require only routine maintenance to ensure ongoing operation.

The remaining five (5) stations, New Brunswick Avenue, Cross Road, Matawan Avenue, Lakeside Drive, & Victoria Court, average 43 years of age and have undergone minimal repair or replacements. Each of these stations are in poor to fair condition. Equipment generally dates to the original construction of each facility; have now exceeded their useful life. Significant rehabilitation or complete replacement is necessary to ensure successful ongoing operation. The projected rehabilitation/replacement costs for these five (5) pump stations is \$5.5 million.

The condition of the five (5) above listed pump stations represents an avoidable deterioration of assets and shows lack of historical investment. This qualifies the system under Emergent Condition #4.

Underground Infrastructure:

Much of the Borough's belowground infrastructure, inclusive of both water distribution and sanitary collection systems, date to the original installation in the early 1900s. Accounting for the various useful life expectancies of the specific pipe materials found within the Borough and using an average installation date of 1960, large portions of the systems are at or approaching the end of their anticipated useful lives.

BOROUGH OF MATAWAN
EMERGENT CONDITION EVALUATION

Table 1: Remaining Useful Life of Water Main by Size (linear feet)

Remaining Useful Life (Years)	Pipe Size (inches)						Totals (LF)	% of Total System
	4	6	8	10	12	16		
100-91		486	3340	1175	419	60	5480	2.83
90-81		486	3341	1175	419	60	5481	2.93
80-71		487	3340	1175	419	60	5481	2.93
70-61		486	3341	1175	419	60	5481	2.83
60-51		2107	14476	5091	1814	259	23747	12.27
50-41		2766	18929	6658	2372	339	31064	16.06
40-31		4701	32292	11357	4046	579	52975	27.38
30-21		1459	10021	3524	1256	180	16440	8.50
20-11	1533	10534	2547	4207	306		19127	9.89
10-0		6079	2254	2757	451		11541	5.97
Exceeded	1533	9232	2064	3616	209		16654	8.61
Totals (LF)	3066	38823	95945	41910	12130	1597	193471	

Table 2: Remaining Useful Life of Sanitary Sewer Main by Size (linear feet)

Remaining Useful Life (Years)	Pipe Size (inches)								Totals (LF)	% of Total System
	2	4	6	8	10	12	18	36		
100-91				395					395	0.21
90-81				395					395	0.21
80-71				395					395	0.21
70-61				2827	424	196			3447	1.83
60-51	1586	2799		13313	2241	882			20821	11.07
50-41				17507	2499	1156			21162	11.25
40-31				31668	4278	1979	592		38517	20.48
30-21				9118	1313	607			11038	5.89
20-11		2527	2667	22134	2981	1725		1455	33489	17.81
10-0		2293		25230	3332	1888	234		32977	17.54
Exceeded		2036	2667	16958	2267	1486			25414	13.51
Totals (LF)	1586	9655	5334	139940	19335	9919	826	1455	188050	

An estimated 14.58%, or 5.34 miles, of water mains of varying sizes are either currently beyond their useful life or will be at the end of their useful life within the next 10 years. An estimated 31.05%, or 11.06 miles, of sanitary sewer mains are similarly beyond their useful life or will be at the end of their useful life within the next 10 years.

Assuming an average replacement cost inclusive of trenching and restoration of \$250 per linear foot, 5.34 miles of water main and 11.06 miles of sewer main are estimated to cost \$7,048,750 and \$14,597,750 respectively. With the biannual budget of \$1,000,000 the above repairs are significantly larger than the current budget.

In accordance with NJDEP regulations, a water system with an average daily demand of 1 million gallons per day or greater is required to install a minimum 8"

BOROUGH OF MATAWAN
EMERGENT CONDITION EVALUATION

diameter pipe for new water main construction or for water main replacement projects; the exception being short dead-end sections of water main. While the Borough does not average above 1 MGD of use over the course of the year, this limit is exceeded during the warmer months. In order to ensure adequate system flow is available not only to supply customer demands but also for sufficient firefighting capabilities, it is recommended that the initial priority for replacements be focused on all pipelines below 8" diameter.

Full replacement of all pipelines below the required 8" minimum diameter requires the replacement of 3,066 LF of 4" and 38,823 LF of 6" diameter water main. At an estimated replacement cost of \$250 per linear foot, inclusive of trenching and restoration, the estimated total replacement cost is $[(3066\text{LF} + 38823\text{LF}) \times \$250 =] \$10,472,250$.

Table 3: Breakdown of Water System Distribution Piping By Pipe Size

Pipe Size (inches)	Total Length (LF)	% of Total System	Length w/ <10 Useful Life Remaining (LF)
16	1597	0.83	0
12	12130	6.27	660
10	41910	21.66	6373
8	95945	49.59	4318
6	38823	20.07	15311
4	3066	1.58	1533

Examining only the portion of the pipelines under the 8" minimum diameter which have 10-years or less useful life remaining yields 1533 LF of 4" and 15311 LF of 6" diameter water main. At the same estimated replacement cost used above, the estimated total replacement cost is $[(1533\text{LF} + 15311\text{LF}) \times \$250 =] \$3,829,283$.

The condition of the underground water and sewer systems represents an avoidable deterioration of assets and shows lack of historical investment. This qualifies the system under Emergent Condition #4.

Emergent Condition #5

Emergent Condition #5 addresses the inability of the owner of a water or wastewater system to provide suitable technical, managerial or financial capacity to adequately address any of the four preceding Emergent Conditions or own and operate the system in a way that supports economic activity in the municipality on a substantial basis.

As per the NJDEP's *Guidance Document – Municipal Certification of Emergent Conditions*, it is understood that the DEP considers the following criteria to mean:

- 1) "System Capacity" is the ability to plan for, achieve and maintain compliance with applicable drinking or wastewater standards, permits and/or regulatory

BOROUGH OF MATAWAN
EMERGENT CONDITION EVALUATION

requirements and has three components: technical, managerial, and financial. Adequate capacity in all three areas is necessary for a water or wastewater system to have “system capacity”

- 2) “Technical capacity” is the physical and operational ability of a water or wastewater system. Technical capacity refers to the physical infrastructure of the water or wastewater system, including the adequacy of treatment, and appurtenant infrastructure and the adequacy of the source water (for drinking water systems). It also refers to the ability of system personnel to adequately operate and maintain the system and to otherwise implement requisite technical knowledge.
- 3) “Managerial Capacity” is the ability of a water or wastewater system to conduct its affairs. Managerial capacity refers to the system’s institutional and administrative capacities. Managerial capacity includes ownership accountability, appropriate staffing and organization, and effective external linkages.
- 4) “Financial Capacity” is a water or wastewater system’s ability to acquire and manage sufficient financial resources. Financial capacity includes revenue sufficiency, credit worthiness, and financial management and controls.

Condition #5 Analysis:

- 1) **Technical Capacity:** The Borough has been successfully operating the water and sewer utilities without violations or disciplinary actions from the DEP. The Borough contracts design work as necessary to qualified consultants and conducts maintenance or replacement work with the guidance of the equipment manufacturer. The history of compliance and use of qualified consultants indicates sufficient technical capacity is in place to satisfactorily operate the system.

The Borough sources water from New Jersey American Water Company during non-peak months to supplement their allocation. This allows them to supply water as needed during the summer months without exceeding their permitted allocation. The system further lacks suitable firm capacity to accommodate future development within the Borough. Without future development, the Borough is limited in the amount of customers and revenue that can be generated with the utility. While this situation does not lead to a current Technical Capacity deficiency, it could lead to either a technical and/or Financial Capacity deficiency in the future.

- 2) **Managerial Capacity:** The Borough employs professionals including attorneys, engineers, administrators, clerks, and other personnel to effectively manage the operations of the Utility.

The Borough has fourteen (14) full-time employees within the Public Works Department. Borough personnel responsibilities include operation and maintenance of the pump stations, wells and storage facilities, as well as service calls, meter readings, hydrant flushing and maintenance, valve exercising, and some water main and service line

BOROUGH OF MATAWAN
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repairs. The Borough contracts with an outside contractor every 2-years to respond to emergency repairs.

- 3) **Financial Capacity:** Due to the age of the existing water and sewer facilities, a long-term capital utility improvements plan is needed to ensure ongoing operation of the public water supply and sanitary sewer systems. A 10-Year Capital Improvement Plan (CIP) has been developed, focusing on necessary routine maintenance, upgrades and long-term planning of the water and sewer infrastructure. This plan estimates the annual cost of the capital improvements over the term of the plan will cost \$3,600,313 per year.

The Borough currently budgets \$1,000,000 biannually for capital improvements (for both water and sewer systems), maintenance, and repairs which is shared between the water and sanitary facilities. The utility currently carries approximately \$1.2 million of debt service for previous improvements completed to the utility system. The current rate structure was adopted by ordinance by Borough Council in 2014 with no rate increases adopted since.

The Borough has a relatively large amount of infrastructure as compared to its customer base. The 10-Year CIP which represents the minimum work necessary to maintain the systems. Given the volume of work, current budgets and existing debt service, the Borough is currently unable to fund necessary capital improvement projects under the current rate structure. As a result, increases to the rate structure are unavoidable. The Borough is currently reviewing options for a combination of increased rates and additional debt service to fund necessary improvements.

The above discussed funding capability represents a lack of financial capacity.

- 4) **System Capacity:** As defined above, system capacity is the combination of the Borough's technical, managerial, and financial capacity. As illustrated herein, the Borough is currently deficient in financial capacity to implement the 10-year capital improvement plan focusing on the minimum work required to maintain the utility. As such, the Borough lacks system capacity, qualifying the system under Emergent Condition #5.

Appendix A – Referenced Sections:

- N.J.A.C. 7:10 – Safe Drinking Water Act Rules
- N.J.A.C. 7:10A – Rules and Regulations Governing the Licensing of Water Supply and Wastewater Treatment System Operators
- N.J.A.C. 7:14A – NJPDES Rules
- N.J.A.C. 7:19 – Water Supply Allocation Permits Rules

BOROUGH OF MATAWAN
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Referenced sections of NJAC 7:10 - Safe Drinking Water Act Rules

2.7 Managerial and Technical Compliance of Water Systems

(a) An existing water system which has undergone a change in status or ownership and/or is found by the Department to be in significant noncompliance with the State primary drinking water regulations shall, upon request, provide to the Department a demonstration of managerial capacity as provided in N.J.A.C. 7:10-13.4 and 13.6 and technical capacity as provided in N.J.A.C. 7:10-13.3 and 13.5.

1. Determinations made pursuant to this section with respect to a water system subject to the jurisdiction of the Division of Local Government Services within the Department of Community Affairs shall be made in consultation with the Director of that Division. Nothing in these rules shall infringe upon the regulatory jurisdiction of the Division of Local Government Services under N.J.S.A. 40A:1-1 et seq.

2. Determinations made pursuant to this section with respect to a public water system, which is a public utility subject to the jurisdiction of the Board of Public Utilities pursuant to N.J.S.A. 48:1- 1 et seq., shall be made in consultation with the Board of Public Utilities. Nothing in these rules shall infringe upon the regulatory jurisdiction of the Board of Public Utilities under N.J.S.A. 48:1- 1 et seq.

13 Standards for Technical, Managerial and Financial Capacity of Public Community and Noncommunity Water Systems

7:10-13.1 Purpose and scope This subchapter establishes minimum technical, managerial, and financial capacity requirements for new public community and nontransient noncommunity water systems. These requirements are necessary to prevent approval for operation of a water system which the Department has determined to be non-viable. A non-viable water system is prone to failure or otherwise unable to comply with all maximum contaminant level, treatment technique, and monitoring and reporting requirements established in the Federal and State primary and secondary drinking water regulations.

7:10-13.2 Additional definition In addition to the words and terms defined at N.J.A.C. 7:10-1.3, the following term is defined for the purposes of this subchapter.

"Capacity" means the overall capability of a water system to reliably produce and deliver water meeting all national primary drinking water regulations and applicable State regulations. Capacity encompasses the technical, managerial, and financial (TMF) capabilities that enable the water system to plan for, achieve, and maintain compliance with applicable drinking water standards.

7:10-13.3 Demonstration of technical capacity for community water systems

(a) An applicant for a permit to construct and operate a new public community water system pursuant to N.J.A.C. 7:10-11.5(a) shall, in addition to requirements set forth in N.J.A.C. 7:10-11.5(d), provide a detailed description of source of supply, treatment,

BOROUGH OF MATAWAN
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storage, and distribution of the new water system's infrastructure, which shall include the following:

1. Identification and evaluation of all critical facilities and equipment whose failure would result in a water outage or water quality failure;
2. Evidence, including a description, of any deeds, leases or easements for land, water supply sources, or physical facilities used in the operation of the system; and
3. Evaluation of the feasibility of connecting to any adjacent water systems and justification why these connections should not be required.

(b) An applicant for a permit to construct and operate a new public community water system pursuant to N.J.A.C. 7:10-11.5(a) shall submit an Infrastructure Replacement Plan that includes:

1. A description of and estimate of life expectancy of all sources of water supply, treatment, and transmission/distribution facilities including pipes, pumping stations, storage facilities, and meters; and
2. An equipment replacement plan including expected replacement date, costs, and sources of funding.

(c) An applicant for a permit to construct and operate a new public community water system pursuant to N.J.A.C. 7:10-11.5(a) shall submit proof of compliance with State operator certification rules, N.J.A.C. 7:10A. 7:10-13.4 Demonstration of managerial and financial capacity for community water systems (a) No person shall commence operation of a new public community water system prior to obtaining a permit to operate issued by the Department pursuant to N.J.A.C. 7:10-11.5(j). (b) A written application for a permit to operate shall be submitted in accordance with this section and shall include a description of the as-built water system, and financial and managerial plans pursuant to (c) and (d) below.

(c) The managerial plan shall contain the following:

1. Information concerning the organizational structure of the system including:
 - i. A description of the organizational structure with a chart showing all aspects of water system management and operation;
 - ii. A description of the primary responsibilities and identification of all key personnel, including board of directors or councils, involved in the management or operation of the system or personnel;
 - iii. Identification, including the names and phone numbers, of those responsible for policy decisions ensuring compliance with State regulatory requirements, and the day-to-day operation of the system;

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- iv. If the person in charge of operation has other responsibilities unrelated to the water system, an explanation as to how the operator will reliably execute his or her responsibilities;
 - v. Copies of any contracts for management or operation of the water system by persons or agencies other than the system owner; and
 - vi. A description of how legal, engineering, and other professional services are provided;
2. A description of the qualifications of the owners and managers of the water system, including any training and experience relating to owning or managing a water system. Also, system owners shall include a list of public water systems previously or currently owned as well as any systems previously or currently operated under contract for another owner;
3. A description of a procedure for keeping management personnel informed concerning regulatory requirements for managing and operating a public water system;
4. An emergency management plan that includes:
- i. Identification of known and potential natural and human-caused risks to the water system;
 - ii. Identification of personnel responsible for emergency management;
 - iii. A description of the notification procedures and means for implementation; and
 - iv. A description of the emergency response plan for each identified risk;
5. A description of system policies that define the conditions under which water service is provided. The system policies shall include a description of:
- i. Water system responsibilities;
 - ii. Customer responsibilities;
 - iii. Design and construction standards for system modifications and additions;
 - iv. Cross-connection control;
 - v. Developer agreement and "late-comer" (future developers) policies;
 - vi. Customer information or public education;
 - vii. The process for investigating and responding to customer complaints;
 - viii. Budget development and rate structure that includes meter reading and billing schedule; and

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ix. Response and notification if water quality violations occur.

(d) A financial plan shall include the following:

1. A five-year budget that includes revenues, operating expenses, reserves, and capital improvements including:

i. A revenue/expenditure analysis that compares all anticipated water system revenues with planned expenditures for the next five years;

ii. Identification of reserve accounts for emergency funding and equipment replacement; and

iii. A capital improvement plan for the next five years including identification of the project, estimated costs, and amount allocated for repayment of debt financing to meet new drinking water standards and accommodate growth;

2. A description of the budget and expenditure control procedures and reports that assure adequate budget control including:

i. Quarterly reports comparing actual expenditures to budgeted expenses; and

ii. Purchasing procedures or policy to prevent misuse of funds; and

3. For new community water systems built in phases, a statement of credit worthiness which shall include the following:

i. A certification that the system is not in arrears on existing debt; and

ii. A current credit report.

7:10-13.5 Demonstration of technical capacity for public nontransient noncommunity water systems

(a) An applicant for a certification to construct and operate a new public nontransient noncommunity water system pursuant to N.J.A.C. 7:10-12.4(a) shall, in addition to requirements set forth at N.J.A.C. 7:10- 12.39 and 12.41, submit to the administrative authority an engineer's report prepared by a New Jersey licensed professional engineer that contains:

1. A system description that includes:

i. An identification of the municipality, area, or facility to be served by the proposed system;

ii. A description of the nature of the establishments and of the area to be served by the proposed system;

iii. Provisions for future extension of the water system;

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- iv. Identification of all interconnections with other systems;
 - v. A description of the design basis, including average, daily, annual, maximum daily, peak hour demands, and useful life of all sources, treatment, and transmission facilities including pipes, pumping stations, and storage facilities;
 - vi. A description of proposed treatment processes including criteria and basis of design of units, methods or procedures used in arriving at recommendations and reasons or justifications for any deviations from conventional or indicated process or method;
 - vii. Identification of all backflow prevention devices;
 - viii. A description of source meters; and
 - ix. Population projections and trends for 25 years into the future;
2. A description of the source adequacy including:
- i. An analysis of the ability of the proposed and existing sources to reliably meet design demands, and a comparison of the available water with average and maximum daily demands, considering existing and future (25 years) conditions;
 - ii. A determination of the safe yield of the sources of supply.
 - (1) For ground water sources, the maximum potential yield for each well shall be reported along with the following:
 - (A) Identification of the aquifer in which the wells are located;
 - (B) Well efficiency information, including the ratio of most recent specific capacity to maximum specific capacity;
 - (C) Planned pumping rates of the wells, including the maximum well capacity of each well based on limitations such as the relationship to other wells, interference from other wells, contamination, and excessive drawdown; and
 - (D) Operational considerations that may limit the pumping rate;
 - iii. A characterization of the sources of supply including appropriate hydrological data to demonstrate reliability and water quality with a comparison to established or proposed drinking water standards; and
 - iv. Source water delineation and assessment in compliance with New Jersey source water protection requirements, if applicable;
3. Evidence of compliance with the State operator certification rules at N.J.A.C. 7:10A, as applicable, including the name of the operator(s) and licenses held;

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4. Description of compliance with the State cross-connection control program (at N.J.A.C. 7:10- 10.9), as applicable; and
5. An operations plan that includes the following:
 - i. The name of and license possessed by, the system operator(s);
 - ii. The responsibilities, qualifications and training of operating personnel;
 - iii. A description of the routine operation/maintenance procedures;
 - iv. Water quality violation response procedures;
 - v. Water quality monitoring plan to comply with regulatory requirements for supply;
 - vi. Sources, treatment and distribution system;
 - vii. Maintenance and testing of backflow prevention devices;
 - viii. Source meter maintenance;
 - ix. Operation of treatment works and pumping plants; and
 - x. Storage tank inspection and cleaning.

7:10-13.6 Demonstration of managerial and financial capacity for nontransient noncommunity water systems

(a) No person shall commence operation of a new public nontransient noncommunity water system prior to obtaining certification from the administrative authority pursuant to this section.

(b) The supplier of water shall submit to the administrative authority the following information prior to the certification and approval of the water system for operation:

1. A description of the as-built water system that includes the information required under N.J.A.C. 7:10-12.40(b)1 through 8;
2. A managerial plan containing the following:
 - i. A description of the organizational structure with a chart showing all aspects of water system management and operation;
 - ii. A description of the primary responsibilities and identification of all key personnel, including board of directors or councils, involved in the management or operation of the system or personnel;
 - iii. Identification, including the names and phone numbers, of those responsible for policy decisions ensuring compliance with State regulatory requirements, and the day-to-day operation of the system;

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- iv. If the person in charge of operation has other responsibilities unrelated to the water system, an explanation as to how the operator will reliably execute his or her managerial responsibilities;
- v. Copies of any contracts for management or operation of the water system by persons or agencies other than the system owner;
- vi. A description of how legal, engineering, and other professional services are provided.
- vii. The identity of the system's legal owner, including name and address;
- viii. Copies of all documents which form the legal basis of the system and prescribe the conditions under which the system may operate;
- ix. Copies of any deeds, leases or easements for land, water supply sources, or physical facilities used in the operation of the system;
- x. A description of the qualifications of the owners and managers of the water system, including any training and experience in owning or managing a water system. Also, system owners shall include a list of public water systems previously or currently owned as well as any systems previously or currently operated under contract for another owner;
- xi. A description of a plan for keeping management personnel informed concerning regulatory requirements for managing and operating a public water system; and
- xii. The names and telephone numbers of responsible persons to contact in the event of an emergency; and

3. A financial plan including the following:

- i. A five-year budget that includes revenues, operating expenses, reserves, and capital improvements including:
 - (1) A revenue/expenditure analysis that compares all anticipated water system revenues with planned expenditures for a five-year period;
 - (2) Identification of reserve accounts for emergency funding and equipment replacement; and
 - (3) A capital improvement plan for the next five years including identification of the project, estimated costs, and amount allocated for repayment of debt financing to meet new drinking water standards and accommodate growth.

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7:10-13.7 Public water systems under the jurisdiction of the Department of Community Affairs or under the jurisdiction of the Board of Public Utilities

(a) Determinations of technical, managerial, and financial capacity with respect to a water system subject to the jurisdiction of the Division of Local Government Services within the Department of Community Affairs shall be made in consultation with the Director of that Division. Nothing in these rules shall infringe upon the regulatory jurisdiction of the Division of Local Government Services under N.J.S.A. 40A:1-1 et seq.

(b) Determinations of technical, managerial, and financial capacity with respect to a water system, which is a public utility subject to the jurisdiction of the Board of Public Utilities pursuant to N.J.S.A. 48:1- 1 et seq. shall be made in consultation with the Board of Public Utilities. Nothing in these rules shall infringe upon the regulatory jurisdiction of the Board of Public Utilities under N.J.S.A. 48:1-1 et seq.

11.5(c)6 Permit Requirements: application contents, map of system

6. A map identifying the existing and proposed water system including sources, treatment, distribution and storage facilities, and the water service area. For the purposes of this section, "water service area" means the geographical area within which a water system operates for the provision of water. The mapped water service area shall clearly delineate the boundary of the geographical area currently served by the existing water system, in addition to the area anticipated to be served upon completion of the proposed water system. Mapping shall be in the form of digital Geographic Information Systems (GIS) data, at a scale of 1:12,000. Digital mapping shall conform to the "New Jersey Department of Environmental Protection Mapping the Present to Protect New Jersey's Future: Mapping and Digital Data Standards," in N.J.A.C. 7:1D, Appendix A. Guidance related to the mapping and digital data standards is available at the Department's website at <http://www.state.nj.us/dep/gis>. The Department will provide its GIS theme coverages, associated metadata and digital data transfer standards, as established at N.J.A.C. 7:1D, Appendix A, at the request of the applicant;

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Referenced Sections of NJAC 7:10A, Rules and Regulations Governing the Licensing of Water Supply and Wastewater Treatment System Operators

1.12 Duties, Records and Reports

(a) At a minimum, all licensed operators shall perform the following duties and maintain the following information for each system operated:

1. Each licensed operator shall have readily available written detailed operations and maintenance (O&M) procedures. The O&M procedures shall be designed to maximize preventive maintenance and operating techniques that will ensure that the system operates in a manner that satisfies all laws, rules, regulations, license conditions and orders relating to this chapter. The written O&M procedures shall be updated within 30 days after any substantial change to the system that warrants a change in the operation and maintenance of the system. The written O&M procedures shall include, at a minimum:

- i. Standard operating procedures, including a description of each major treatment unit and/or process;
- ii. A plan for monitoring system process controls;
- iii. An emergency operations plan, which addresses facility and system security, and includes a list of names and telephone numbers of facility personnel to be contacted in the event of emergency;
- iv. A schedule of routine inspections and preventive maintenance;
- v. For a public wastewater collection system (C class) or a public water distribution system (W class), a system map;
- vi. A sampling and/or water quality monitoring plan, if applicable to the facility;
- vii. A schedule of routine meter readings, tests, and chemical use, if applicable to the facility; and
- viii. An inventory of equipment and supplies necessary to operate and maintain the system.

2. Each licensed operator shall:

- i. Properly operate and maintain the system, including, but not limited to, the following duties, as applicable:
 - (1) Monitor chemical feed and other system components;
 - (2) Monitor effectiveness of treatment;
 - (3) Develop a preventive maintenance plan consistent with the schedule specified in the O&M procedures;
 - (4) Read meters and gauges, making adjustments as needed;

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- (5) Make all process control and/or system component integrity decisions;
 - (6) Assist the system owner in resolving any problems complying with applicable regulations and permits;
 - (7) Collect or oversee the collection of samples in accordance with O&M procedures;
 - (8) Store chemicals in locked areas with proper safety equipment;
 - (9) Inform the system owner of any technical or equipment needs of the system;
 - (10) Assess the efficiency of system components (such as pumps and valves); and
 - (11) Respond in a timely manner to customer complaints;
- ii. Schedule routine inspections and preventive maintenance tasks which will be undertaken to preserve the physical integrity of the system;
 - iii. Establish and implement a routine record keeping system designed to incorporate all O&M procedures that relate to the system;
 - iv. Develop a protocol for the system designed to ensure that each employee associated with the system is acquainted with his or her particular responsibilities and obligations, including the protocol to be followed in the event of an emergency within the system or an intervening factor which mandates deviation from routine O&M procedures; and
 - v. Ensure that health and safety measures related to the O&M procedures are followed by the licensee, employees and agents of the system so as to protect human health, safety, welfare, and the environment.
3. Each licensed operator shall be responsible for conducting inspections of the system(s) and appurtenances in accordance with the schedule specified in the O&M procedures, and as otherwise indicated by operating requirements, and/or directed by the Department.
- i. Such inspections shall ensure that the system is operated and maintained properly and complies with all laws, rules, regulations, license conditions and orders relating to this chapter;
 - ii. The results of all mechanical equipment and appurtenance inspections essential to the proper O&M of the system shall either be recorded in ink and maintained in bound inspection log books or be maintained in secured-access computer databases or files or other equivalent method of recordkeeping. The log books or computer databases, or file or equivalent shall also include:

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(1) Time, date and subject of all system inspections;

(2) A report of all breaks, breakdowns, problems, bypasses, pump failures, occurrences, emergencies, complaints and/or intervening factors within the system that result in or necessitate deviation from the routine O&M procedures, and any situations that have the potential to affect public health, safety, welfare, or the environment or have the potential to violate any permits, regulations or laws relating to this chapter;

(3) A record of the remedial or follow up action and protocol taken to correct all breakdowns, problems, bypasses, pump failures, occurrences, emergencies and/or intervening factors within the system that result in or necessitate deviation from the routine O&M procedures, and any situations that have the potential to affect public health, safety, welfare, or the environment or have the potential to violate any permits, regulations or laws relating to this chapter; and

(4) The date and time of each entry.

4. Each licensed operator shall be familiar with and shall ensure compliance with all laws, rules, regulations, license conditions and orders relating to this chapter.

5. System records, current permits, written O&M procedures, log books, computer databases or files or other equivalent records, pertinent documents and correspondence shall be made available upon request by the Department or other controlling agency, and shall be kept in a safe and secure area for a period of five years.

(b) Each licensed operator shall immediately report any system deficiencies, breaks, breakdowns, problems, bypasses, pump failures, occurrences, emergencies, complaints and/or intervening factors within the system that result in or necessitate deviation from the routine O&M procedures and any situations that have the potential to affect public health, safety, welfare, or the environment or have the potential to violate any permits, regulations or laws relating to this chapter. All reports shall be made to the owner or permittee of the system to or from which treatment is provided. All violations shall be reported by the owner or permittee, as appropriate, to the Department.

1. Each licensed operator shall submit to the Department, upon request, a report summarizing any event described in (b) above and the remedial action taken.

2. Each Public Wastewater Collection System operator shall submit to the receiving system a monthly report summarizing all events described in (b) above and the remedial action taken, by the 10th day of the month following each month for which the data is collected.

(c) Each licensed operator of a public wastewater treatment system (S class) or a public wastewater collection system (C class) shall maintain a record of all industrial and commercial dischargers into such system which could exert a deleterious effect on either the collection

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system or the receiving treatment system. The collection system operator shall provide a list of all such industrial and commercial dischargers to the owner or permittee of the receiving system by the 10th day of the month following each month for which the data is collected.

(d) Each licensed operator or the owner of a Public Water Treatment System or Public Non-Community Surface Water Treatment System (T class) shall:

1. Conduct inspections of wells or surface water sources to identify potential sources of contamination; and
2. Submit the monthly Operating Report of Water Treatment Plants, on the form provided by the Department, to the Department before the 10th day of the month following each month for which the data is collected. The report shall include:
 - i. The plant identification number and classification;
 - ii. The month for which the report is provided;
 - iii. The name of the purveyor;
 - iv. Plant description and its location;
 - v. The pumpage quantity, both raw and treated water;
 - vi. Chemical data as specified on the form;
 - vii. The name and signature of the operator; and
 - viii. Information related to system processes.

(e) Each licensed operator of a Public Water Distribution System (W class) shall, at a minimum:

1. Exercise all major system valves for emergency interconnections annually;
2. Notify the system owner of any line breaks, pumping failures or water quality complaints relating to treatment; and
3. Periodically flush distribution system using hydrants and blow-off valves

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Referenced Sections of NJAC 7:14A - NJPDES Rules

6.12 Operation, Maintenance, and Emergency Conditions

(a) A permittee shall, at all times, maintain in good working order and operate the treatment works and facilities which are installed or used by the permittee to achieve compliance with the terms and conditions of the discharge permit. Proper operation and maintenance, includes, at a minimum:

1. Effective performance based upon treatment levels for which the treatment works was designed;
2. Adequate funding;
3. Effective management;
4. Adequate operator staffing and training;
5. Regularly scheduled inspection and maintenance programs; and
6. Adequate laboratory and process controls including appropriate quality assurance procedures as described in 40 CFR Part 136 and applicable State laws and rules.

(b) Any permittee who operates a treatment works shall satisfy the licensing requirements of the "Water Supply and Wastewater Operators Licensing Act," N.J.S.A. 58:11-64 et seq., and promulgated pursuant thereto. This subsection requires the operation of back-up or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the NJPDES permit or where required by applicable law or regulation.

(c) All permittees shall submit written verification to the Department that an operation and maintenance manual for the treatment works, including related appurtenances and collection system, has been or will be completed by the effective date or a compliance date included in a new or renewed NJPDES permit issued subsequent to May 5, 1997. A permittee does not need to submit the operation and maintenance manual to the Department, unless specifically directed to do so. When the Department directs a permittee to submit the operation and maintenance manual, the Department shall state the reasons for requiring the submittal in a letter requesting the submittal. In the case of a NJPDES permit for stormwater discharges or separate storm sewers which expressly exempts permittees from this provision, the exemption shall apply only to the discharge authorized by the permit. Any affected permittee shall comply with the following operation and maintenance manual requirements:

1. The operation and maintenance manual shall be made available for inspection upon request by an authorized representative of the Department.
2. The operation and maintenance manual shall be amended whenever there is a change in the treatment works design, construction, operations or maintenance which substantially changes the treatment works operations and maintenance procedures.
3. An operation and maintenance manual shall describe, at a minimum, the following:

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- i. Operator and staff responsibilities;
- ii. Staff guidance for emergency situations;
- iii. Identification of NJPDES permit requirements and the obligation to meet these requirements;
- iv. Operating procedures including a detailed description of each major treatment unit/process with relationship to related units, safe operating procedure for normal operation, including common operating problems, safe operating procedures for operating during emergency conditions, and any fail-safe features;
- v. A program of regularly scheduled inspection and maintenance; and
- vi. An emergency plan in accordance with (d) below.

(d) An emergency plan shall be included as part of the operation and maintenance manual, except for those operations issued permits under N.J.A.C. 7:14A-20.

1. When a person has prepared an emergency plan required by regulations other than this chapter, such plans or plan and any amendments necessary to meet the requirements of this section will satisfy the requirements of this section provided the plan is labeled to identify the requirements listed in this section.
2. An emergency plan shall be amended whenever:
 - i. There is a modification, including expansion, of the treatment works; or
 - Bii. Any other conditions related to the plan have changed.
3. The emergency plan shall be designed to ensure effective operation of the treatment works under emergency conditions, and shall consist, at a minimum, of the following elements:
 - i. A vulnerability analysis which shall estimate the degree to which the treatment works 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, civil disorder, strike, sabotage, faulty maintenance, negligent operation or accident;
 - ii. The vulnerability analysis shall include, but is not limited to, an estimate of the effects of such an emergency upon the following:
 - (1) Power supply;
 - (2) Communication;
 - (3) Equipment;
 - (4) Supplies;
 - (5) Personnel;

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(6) Security; and

(7) Emergency procedures to be followed.

iii. An evaluation of the possible adverse effects on public health and the environment due to such an emergency; and

iv. An emergency operation plan for ensuring, to the maximum extent possible, uninterrupted treatment works operation and a manual of procedures for the implementation of such plan, including procedures for the notification of any appropriate regulatory agency, affected water supply purveyors, and any other municipal authority or agency. The plan and manual shall address each of the emergency situations described in the vulnerability analysis.

4. The Department shall not individually review and approve an emergency plan as part of the permit issuance process. The Department's decision not to review and approve an emergency plan shall not exempt a person from liability for violations arising from an emergency situation. A person shall take all necessary actions to mitigate the damage to the waters of the State arising from an emergency situation. Such actions shall not be limited by the emergency operating plan and the operation and maintenance manual.

5. Failure to have on file any part of the operation and maintenance manual in compliance with (c) above and failure to implement the emergency plan pursuant to this subsection shall each constitute a violation of this chapter.

6. In emergency situations, a permittee shall implement the requirements of the emergency plan to the fullest extent possible. In addition, any conditions of the emergency plan that the permittee can implement prior to an emergency situation to reduce the potential for an emergency situation, shall be implemented.

(e) A municipality or sewerage authority who is not a permittee (for example, does not have a direct surface or groundwater discharge) but who owns and operates a treatment works used only for the collection or transportation of domestic sewage is not required to prepare an operations and maintenance manual. However, the municipality or sewerage authority shall be responsible for the proper operation and maintenance of that treatment works. The criteria for proper operations and maintenance and an emergency plan pursuant to (a) and (d) above, may be used as a guideline and implemented as applicable.

22.5 Treatment Works Approval

(a) A treatment works approval consists of the following three stages:

1. Stage I is an optional preliminary or conceptual review of treatment works as prescribed in N.J.A.C. 7:14A-22.7. The Department recommends that a stage I review and approval be obtained for any new sewage treatment plant or plant expansion, or if the proposed treatment works involves a new or innovative design or technology.

2. Stage II is an approval to construct, install or modify a treatment works as outlined in this subchapter.

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3. Stage III is an approval to operate a treatment works that has been constructed or received a stage II approval. In general, separate stage II "construct only" approvals are issued for projects located in sewer ban areas, in future sewer service areas for which no downstream sewers exist, and for construction of some treatment plants. Stage II and stage III approvals are generally issued concurrently as a single document, when operation of the treatment works can occur immediately upon completion of the project.

(b) The construction, installation, modification or operation of a treatment works in a manner inconsistent with the terms and conditions of the Department's approval constitutes a violation of the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. and may be subject to penalties and fines pursuant to the above Act, the Civil Administrative Penalty Rules, N.J.A.C. 7:14-8, or other applicable statute.

(c) The Department may modify, suspend or revoke a treatment works approval in accordance with N.J.A.C. 7:14A-22.11.

(d) A preapplication review is an optional service especially recommended for large-scale development. During this review the Department will discuss the apparent strengths and weaknesses of the proposed development, as well as the procedures and policies that would apply to the particular development. The conference is intended to provide guidance and does not constitute a commitment of approval or denial of a treatment works approval application for the proposed development.

(e) The Department shall approve, condition, or deny an application for a treatment works approval pursuant to this subchapter within 90 days of receipt of an administratively complete application by the Department. This time period may be extended for one 30 day period upon the mutual consent of the applicant and the Department.

1. Within a maximum of 20 business days following the date of receipt of the application, the Department shall perform a review to determine administrative completeness of the treatment works application in accordance with N.J.A.C. 7:14A-22.6 or 22.8 as appropriate, assign an agency project number and notify the applicant in writing the administrative status of the application and any additional information required to make the application administratively complete.

i. In the case where the application has been determined to be administratively incomplete, the Department shall make a decision on the treatment works approval application within 90 days following the date of receipt of the additional information required to make the application administratively complete.

ii. In the case where the application has been determined to be administratively incomplete, the Department reserves the right to deny the application without prejudice if the additional information required to make the application administratively complete has not been received by the Department within 20 days of the date of the notice of the administrative status of the application.

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2. Comments received on an application will be included in the application file and will be considered by the Department in the application review process.
 3. If the Department fails to act within the 90 days of receipt of an administratively complete application, the application shall be deemed to have been approved, to the extent that the application does not violate other statutes or regulations then in effect, and subject to any standard terms and conditions applicable to such treatment works approvals.
 4. For treatment works approval applications that have been denied by the Department, a subsequent application by the same applicant for a revised project of the same or reduced scope on the same site may be submitted within one year of the date of denial without additional fees. The waiving of such fees is limited to only one resubmittal request. The resubmitted application will be treated as a new application, although references may be made to the previously reviewed application.
- (f) The issuance of a treatment works approval by the Department does not relieve the applicant of the continuing responsibility for the successful collection, conveyance, treatment or discharge of pollutants, nor does it relieve the applicant from the responsibility of insuring that all discharges are consistent at all times with the terms and conditions of the applicable NJPDES permit and that no pollutant will be discharged more frequently than authorized or at a level in excess of that which is authorized by the applicable NJPDES permit. The applicant is also responsible for complying with all applicable permits, regulations, statutes, or other laws.
- (g) The applicant and any owner or operator of a treatment works shall provide notice of the terms and conditions of any existing treatment works approval to a prospective purchaser of the treatment works. Upon change of ownership of the treatment works, the new owner shall assume responsibility for its proper operation and maintenance or closure. Notification to the Department of a change in ownership for the treatment works approval permit is not required.
- (h) The Department's review of applications and submissions is limited to engineering (including hydraulic) features of significance to applicable discharge limits and protection of the environment. The Department will not review structural, mechanical or electrical design, except when it may be significant to achievement of discharge limitations or to the protection of the environment.
- (i) A permit to construct or operate a treatment works, previously issued to the owner or operator pursuant to N.J.S.A. 58:11-10 or 58:12-3 will constitute a treatment works approval for the purpose of this subchapter. The permit and any conditions thereto will continue to be in effect until such time as the permit is revoked, amended or expired.
- (j) The full responsibility for adequate design, construction and operation of the treatment works, and the full responsibility for successful collection, treatment and discharge of pollutants shall be on the applicant.
- (k) Treatment works shall be constructed in a manner which is consistent with the provisions of the appropriate wastewater management plan.

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(l) The Department may grant an emergency approval authorizing the construction and/or operation of a treatment works prior to issuance of a formal treatment works approval in situations such as the modification/rehabilitation of existing treatment and conveyance systems where time delays may threaten the public health or safety. Such approvals shall be subject to the following requirements:

1. The Department and the affected collection system owner and/or treatment plant owner (as appropriate) shall be informed by telephone or in writing, prior to construction, as to the project location, the extent of work to be performed, and the reason for the emergency.
2. Within 15 calendar days of commencing the activity for which an emergency approval is authorized, an application for a treatment works approval and/or sewer ban exemption shall be submitted to the Department for review and issuance of the required permit. "As-built" drawings, if applicable, shall be submitted.
3. The Department reserves the right to deny an emergency approval request if it is determined that an emergency approval request is not justified, the activity would be inconsistent with any applicable rules, or a more prudent alternative is available.
4. Failure to comply with the requirements of (k)1 or 2 above, the construction or operation of treatment works inconsistent with the emergency authorization, or submission of false information may subject the applicant to enforcement action by the Department, including the imposition of fines or penalties.

(m) For most industrial treatment works, treatment works approvals will be issued in the form of a General Industrial Treatment Works Approval. The submission requirements for a General Industrial TWA are contained in N.J.A.C. 7:14A22.6, and are administrative in nature. Within 30 days of receipt of a complete General Industrial TWA application, the Department will issue a General Industrial TWA or notify the applicant that due to a potentially significant health risk, environmental impact, or past performance of the facility the project cannot be granted a General Industrial TWA and an individual treatment works approval is required.

(n) The Department shall publish in the DEP Bulletin, a report of the receipt of each new treatment works application and the final action taken. Publication in the DEP Bulletin constitutes constructive notice to all interested persons of the receipt by the Department of each new treatment works application and the final action taken by the Department on treatment works approvals.

1. The application status report shall include, but is not limited to:
 - i. The applicant's name;
 - ii. The agency project number;
 - iii. The nature of the project; and
 - iv. The date and description of the receipt of each new treatment works application and the final action taken on the project.

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(b) For treatment works applications involving the temporary or permanent use of holding tanks, the engineering reports required to be submitted by N.J.A.C. 7:14A-22.13 and 22.8 shall include:

6. Specifications including construction practices and operation and maintenance procedures;

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Referenced sections of NJAC 7:19 Water Supply Allocation Permits Rules

6.6 Rehabilitation:

(a) Purveyors shall comply with the following requirements for preparation and implementation of management and status surveys:

1. Within one year after the effective date of this subchapter all Class 3 purveyors must perform management and status surveys in accordance with criteria to be provided by the Department, except that those having had such surveys or partial surveys performed within the preceding five years may, with the approval of the Department, submit such completed work in partial or complete compliance with this requirement. The survey must include an analysis of the current status of the system infrastructure and the planned renewal and rehabilitation required to maintain the system in good physical condition, including preventative maintenance. The survey shall be accompanied by an evaluation of the status of the system, including acceptance or rejection of each recommendation and a schedule for planned renewal and rehabilitation. Within two years of the effective date of this subchapter all Class 2 purveyors must also submit such surveys and evaluations. The management and status survey required hereby does not preclude compliance with similar requirements of the Board of Public Utilities.

2. Upon approval by the Department, the schedule of planned renewal and rehabilitation shall commence upon the next fiscal year starting after approval by the Department; thereafter it shall be implemented annually by the purveyor.

3. If no management and status survey is submitted pursuant to the above requirements or if the recommended schedule is disapproved by the Department, planned renewal and rehabilitation of system infrastructure shall be carried out by each purveyor to the extent of 10 percent of total gross water supply revenue, in accordance with Departmental criteria.

4. Upon the effective date of these regulations, all Class 2 and 3 purveyors must initiate administrative preparation for planned renewal and rehabilitation programs, of the magnitude contemplated by this section, as applied to each purveyor's particular situation. This shall be done without awaiting the completion of the management and status surveys required above.

(b) Upon determination by the Department that any component(s) of a water supply system have deteriorated to a degree that may jeopardize the ability of the system to deliver an adequate and reliable supply of water or may cause waste of an unduly large amount of water, the purveyor shall submit, within a time period required by the Department, a report and implementation schedule specifically identifying the scope of rehabilitation work necessary, the time required for work implementation and the required water rate modification to finance the work.

(c) Upon approval of the report by the Department, the purveyor shall commence rehabilitation work in an expeditious manner and shall perform the work in a manner which minimizes system disruptions.

(d) All rehabilitation work performed on water supply systems shall conform to the current design requirements specified in the New Jersey Safe Drinking Water Act, N.J.S.A. 58:12A et seq., and this subchapter.

BOROUGH OF MATAWAN
EMERGENT CONDITION EVALUATION

(e) For planned or required transmission/distribution system rehabilitation, loans will be provided on a priority basis, pursuant to the Water Supply Bond Act of 1981, (Public Law 1981, Chapter 261) and associated rules (N.J.A.C. 7:1A-1 et seq.), to the extent that eligibility requirements of the regulations are met and the funding availability allows.

1. In cases where a critical water supply transmission/distribution disruption exists, pursuant to N.J.A.C. 7:1A-6, application may be made for an emergency, interim rehabilitation loan. Upon approval of said loan, the emergency applicant is required to make full application for a Water Supply Rehabilitation Loan, pursuant N.J.A.C. 7:1A-1 et seq.

RESOLUTION 25-06-15

A RESOLUTION OF THE BOROUGH OF MATAWAN DESIGNATING THE DATE FOR A PUBLIC HEARING REGARDING AN EMERGENT CONDITION UNDER THE WATER INFRASTRUCTURE PROTECTION ACT (WIPA)

WHEREAS, the Borough of Matawan has identified potential emergent conditions affecting its water utility system that may pose a risk to the health, safety, and welfare of residents; and

WHEREAS, the Water Infrastructure Protection Act, N.J.S.A. 58:30-1 et seq. ("WIPA"), permits municipalities to address such emergent conditions through specific procedures, including a public hearing to determine whether such conditions exist; and

WHEREAS, the Borough Council intends to hold a public hearing, pursuant to WIPA and related regulations, to receive public input and make a determination on the existence of an emergent condition; and

WHEREAS, the Borough seeks to provide proper notice to residents and interested parties regarding the scheduled date, time, and purpose of the hearing.

NOW, THEREFORE, BE IT RESOLVED, by the Mayor and Council of the Borough of Matawan, County of Monmouth, State of New Jersey, that the public hearing to consider whether an emergent condition exists under the Water Infrastructure Protection Act shall be held on Tuesday, August 19, 2025, at 7:00 PM at Borough Hall, Matawan Municipal Community Center, Main Meeting Room, 201 Broad Street, Matawan, New Jersey 07747.

BE IT FURTHER RESOLVED that all reports, assessments, and supporting documentation related to the emergent condition shall be made available to the public on the Borough's official website no later than thirty (30) days prior to the public hearing date.

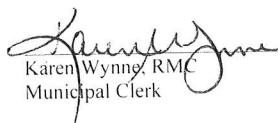
BE IT FURTHER RESOLVED that the Borough Clerk is hereby authorized and directed to take all necessary actions to publish legal notices and advertisements required for the public hearing and overall WIPA process, in accordance with applicable law.

BE IT FURTHER RESOLVED that a true certified copy of this Resolution shall be forwarded to the following Borough of Matawan Departments: Administration, Clerk, Community Engagement Coordinator, Police, Public Works, as well as Remington & Vernick Engineers.

CERTIFICATION OF RESOLUTION

I, Karen Wynne, Municipal Clerk of the Borough of Matawan, County of Monmouth, State of New Jersey, do hereby certify the foregoing to be a true and correct copy of a Resolution adopted by the Council of the Borough of Matawan on June 17, 2025.

IN WITNESS WHEREOF, I have hereunder set my hand and official seal of the Borough of Matawan this 17th day of June 2025.


Karen Wynne, RMC
Municipal Clerk