

**MASTER PLAN
UTILITY SERVICE PLAN ELEMENT**

**BOROUGH OF MILLTOWN
MIDDLESEX COUNTY, NEW JERSEY**

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Introduction

The Utility Services Plan Element analyzes the current status and adequacy of the water supply, distribution and storage facilities, wastewater collection and conveyance facilities, electrical distribution facilities, stormwater management facilities and flood control, solid waste disposal, natural gas supply and telecommunications facilities.

Water Supply

The Borough of Milltown presently obtains its water supply from the City of New Brunswick through a municipally owned 20" diameter cement lined ductile iron transmission main which was installed in 1992.

New Brunswick Presently draws its water from the Delaware and Raritan Canal and from the Weston Mill Pond. Water from both sources is conveyed to the City's surface water treatment plant on Comstock Street in New Brunswick. In general, the Treatment Process consists of flocculation, PH adjustment, sedimentation, filtration and disinfection.

Under terms of the most recent inter-municipal agreement, the City of New Brunswick agrees to provide a minimum of 1,400,000 gallons of water per day when available and the water furnished is to be potable, meaning it will be treated according to any present or future requirements of the NJDEP and will comply with all Federal and State Drinking Water Standards.

The Borough also operates interconnections with North Brunswick and East Brunswick which are available in the case of an emergency; however low pressures are anticipated from these connections due to their size and location.

Water Storage

The Borough presently operates two water storage facilities which include a 500,000 gallon ground storage tank on William Street constructed in 1972 and a 750,000 gallon elevated water storage tank on the south east side of town near the Municipal boundary with East Brunswick constructed in 1994. The William Street tank is presently not in service.

Previous analyses of the water distribution system have indicated that the Borough requires a total of 1.2 million gallons of storage for firefighting purposes and demand equalization. Accordingly, the rehabilitation of the William Street tank and associated pump station is considered a priority project to be completed as soon as funding permits.

In addition, any future development in the Borough will require additional usable storage of water including the rehabilitation of William Street water tank and pump station.

Water Transmission and Distribution

As previously noted; the Borough presently receives water from New Brunswick via a 20" transmission main to the existing booster pumping station on Elkins Lane which boosts the pressure within the Distribution System.

The distribution system consists of a network of water mains with various diameters ranging from 4" to 16" which conveys water to the consumer. Many of these mains are quite old and are not of a size adequate to convey the present water demand of the consumers.

System pressures and water delivery are also affected by water mains terminating in dead ends as well as aged galvanized and lead services lines between the distribution mains and the individual residences.

The Borough's water system map, as amended, depicts the existing water system components within the Borough.

Previous Studies

In 1986, the Borough authorized the preparation of a Water Distribution System Evaluation which assessed the condition of the existing system, analyzed the system and provided recommendations for the present, near future and ultimate demands of the Borough. While the Borough has been successful in accomplishing many of the recommendations contained in the report, others remain to be completed.

Wastewater

Wastewater Collection System

The Borough's Wastewater Collection System consists of a series of sanitary sewerage mains ranging in diameter from 4" to 24". Due to the age of the system and proximity of portions of the system to existing water bodies, it is anticipated that improvements to address inflow and infiltration may be necessary.

The system also includes a wastewater pump station on Riva Avenue which pumps sewage from the westerly portion of Town, and the Church Street Pump Station which pumps all of the sewage flows of the Borough via a 12" force main within Main Street which continues into North Brunswick within Milltown Road and ultimately discharges

along Georges Road in the Township of North Brunswick. Approximately 2,400 feet of the 12" force main was lined with a 10" fiberglass pipe in the late 1970's. The flows then travel by gravity to the Middlesex County Utilities Authority Meter Chamber at the City of New Brunswick Municipal Boundary.

The Church Street Pump Station was replaced in 2001 and was improved in 2012; however, the force main has not been improved in recent years.

The Main Street force main presently lacks sufficient capacity to efficiently convey the sewage discharges from the Church Street pump station and has experienced an increase in the frequency of breaks due to the age of the pipes. The breaks have caused the Borough to incur significant costs for repairs.

Accordingly, the replacement of the force main is considered a priority and should be completed as soon as funding permits.

In addition, any future development in the Borough will require the replacement of the Main Street force main.

The Borough's sanitary sewer map, as amended, depicts the existing sewerage collection and conveyance system components within the Borough.

Wastewater Treatment

As noted above, all of the sewage flows generated within the Borough are conveyed to the Middlesex County Utilities Authority System and ultimately to their regional Treatment Plan in Sayreville.

Electrical Distribution System

The Borough of Milltown owns, operates and maintains an independent electrical power utility that provides electrical service to the Borough Residents and Businesses. The Borough purchases bulk power from PSE&G at a sub-transmission voltage of 26.4 KV. The power is supplied to the Borough's recently constructed substation on Washington Avenue where the transformers step down the power to 4.16 KV. The power is then distributed throughout the Borough via a 12 circuit predominately overhead distribution system.

The electrical substation has a firm capacity of 24 MVA which is determined by removing one of the three transformers from service. The capacity of the station should be monitored as development or increases in demand occur to determine if an increase in capacity is necessary to service the Customers within the Borough.

Stormwater Management and Flood Control

The Municipal Stormwater Management Plan (MSWMP), created pursuant to N.J.A.C. 7:14A-25, "Municipal Stormwater Regulations", documents the strategy for the Borough of Milltown to address stormwater related impacts. The Plan addresses groundwater recharge, stormwater quality and stormwater quantity impacts by incorporating stormwater design and performance standards for new major development, generally defined as projects that disturb one or more acres of land or result in one quarter of an acre or new impervious area. These standards are intended to minimize the adverse impact of stormwater runoff on water quality, water quantity and the loss of ground water recharge that provides base flow to receiving water bodies.

The goals of this MSWMP are to:

- Reduce flood damage, including damage to life and property,
- Minimize, to the extent practical, increases in stormwater runoff from new development,
- Reduce soil erosion from developments or construction projects,
- Maintain the adequacy of existing and proposed culverts and bridges, and other in-stream structures,
- Maintain groundwater recharge,
- Prevent, to the greatest extent feasible, an increase in nonpoint source pollution,
- Maintain the integrity of stream channels for their biological functions, as well as for drainage,
- Minimize pollutants in stormwater runoff from new and existing development to restore, enhance, and maintain the chemical, physical, and biological integrity of the waters of the state, to protect public health, to safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial and other uses of water,
- Protect public safety through the proper design and operation of stormwater basins, and
- Promote public education and involvement, via the Stormwater Pollution Prevention Plan (SPPP).

In order to implement the MSWMP, the Borough has adopted a comprehensive list of ordinances including a Municipal Stormwater Control Ordinance. The purpose of the ordinance is to establish minimum stormwater management controls for major development as defined in the ordinance.

The plan element addresses the goals of the statewide basic requirements that have been implemented by the Borough per the Tier A Municipal Stormwater Master General Permit issued by the State.

The Borough continues to be affected by high intensity storms that in recent years have resulted in catastrophic flooding in the central portions of the Borough in the vicinity of Millpond and the Lawrence Brook. As a result, the Borough has advanced projects to relocate the electrical substation and Public Works Facility out of the flood zone. The Borough should continue to seek out opportunities to improve flood control within the Borough.

Solid Waste Disposal

The Borough of Milltown presently provides weekly Municipal Waste Collection to the residents and Businesses within the Borough. Collection of recyclables is provided through the Middlesex County Improvement Authority's county-wide curbside collection program with collections occurring every two weeks.

The Borough also provides for bulk waste, electronics, grass, brush, leaf and bulk metal pickup all of which are provided curbside.

Natural Gas and Telecommunications

Natural Gas

Public Service Electric and Gas Company (PSE&G) currently provides gas service throughout the Borough. As individual sites develop, PSE&G will extend their facilities to provide service to each site. The Utility Company and / or Site Developers will fund any new facilities in accordance with the Utility Company's policies in place at the time of construction.

Telecommunications

The Borough presently leases real property at 39 Washington Avenue for a Wireless Telecommunications monopole, antennas and related support facilities. The lease agreement for this site anticipates the site and facilities are to be utilized for co-location.

The Borough also leases area on the existing Elevated Water Storage Tank site for the installation, operation and maintenance of Telecommunications facilities.

The Borough Code presently does not contain requirements for Telecommunications Facilities.

The Borough should continue to encourage the co-location of facilities at the existing Municipal Sites.

Recommendations

The following sets forth the action items recommended in order to fulfill the goals and objectives of the Utility Element of the Master Plan:

Water Supply and Distribution System

- Update the water distribution system evaluation performed in 1986 to assess the improvements to the system and identify any additional areas of concern;
- Continue to implement the recommendations of the 1986 water distribution system evaluation;
- Develop a Program to loop existing water mains to eliminate dead ends;
- Seek out funding to replace existing lead building services within the older sections of the Borough;
- Develop a phased water main cleaning and lining program to improve water quality and flow characteristics of water mains;
- Develop a program to repair and or replace water valves annually;
- Recoat the William Street Water Tank and upgrade the pump and controls in accordance with the current hydraulic conditions of the system;
- Implement a program to furnish new water meters throughout the Borough;
- Develop an Asset Management Plan, Water Supply and Treatment Program and Implement the inspection, testing and reporting requirements of the 2017 Water Quality Accountability Act.

Sanitary Sewer System

- Study alternate routes for the replacement of the Borough's Force Main and gravity sewer to New Brunswick and replace the force main;
- Develop an inflow and infiltration reduction program.

Electrical System

- Provide for the annual preventative maintenance of the newly constructed Electrical Substation;
- Implement a program with the goal of replacing and upgrading all electrical meters throughout the Borough;
- Provide for the continual maintenance of the distribution system and trimming of trees to improve reliability.

Stormwater Management and Flood Control

- Continue to monitor Flooding Conditions in the vicinity of the Mill Pond and Lawrence Brook to evaluate potential mitigation strategies.
- Work with the County of Middlesex to implement the design and construction of storm drainage improvements along North Main Street.

Telecommunications

- Prepare and adopt a Telecommunications Ordinance that encourages the co-location on Facilities and that conforms to the Telecommunications Act of 1996 which governs the regulation of the placement, construction and modification of personal wireless service facilities by any State or Local Government.

Other Recommendations

- Prepare and adopt an amended offsite and off tract improvement ordinance to permit the Borough to assess a pro-rata share contribution for the impacts of new development on existing utility systems.