

Township of Brick

Utilities Plan Element



Township of Brick
Division of Land Use and Planning
401 Chambers Bridge Road
Brick, NJ 08723



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Utilities Plan Element

The Township of Brick is fortunate to have a public utilities authority to serve the 26.4 square miles of the Township with a comprehensive water and sewer system. This authority is the Brick Township Municipal Utilities Authority (BTMUA). In addition to BTMUA, the Township Public Works Department manages and maintains all other aspects of municipal maintenance including solid waste disposal and collection, road, storm sewer, and public equipment maintenance.

The BTMUA is a public body politic and corporate of the State of New Jersey, created by an ordinance by the Township Council on February 6, 1969. The BTMUA has approximately 120 employees organized into five (5) departments: Field Operations, Water Quality, Engineering, Finance and Customer Accounts.

Service Area

The BTMUA services the 26.4 square miles of Brick Township with a comprehensive water and sewer system. All of the mainland areas are served with both systems while on the barrier island, sewer service is provided by the BTMUA and water service is provided by the New Jersey American Water Co., a private water purveyor.

Sanitary sewer service is also provided to a portion of southwestern Wall Township. Under Ocean County Utilities Authority (OCUA) and the Manasquan River Regional Sewerage Authority (MRRSA) agreements, up to a maximum of 250,000 gallons/day, from Wall Township can be conveyed through the BTMUA's systems to the OCUA interceptors. Approximately 20,000 gallons/day of the capacity is already being utilized.

The BTMUA also supplies approximately 1,250,000 gallons of potable water per day to Point Pleasant Borough and Point Pleasant Beach Borough.

The Water System

As of September 1, 2000, the BTMUA provided 32,410 customers with water service. According to the BTMUA records, the total volume of treated water delivered to the system in 1999 was 2,776,000,000 gallons or an average of 7.61 million gallons per day ("MGD").

Currently, the BTMUA obtains water from three separate sources, namely: (1) groundwater from the Cohansey wells, (2) groundwater from the deep Raritan-Magothy wells, and (3) surface waters from the Metedeconk River. All sources of water are located on BTMUA property adjacent to the treatment plant. The existing well field consists of eight (8) Chohansey wells and four (4) Raritan-Magothy wells, for a total of twelve (12) production wells. All the wells have been constructed in accordance with rules and regulations promulgated by the New Jersey Department of Environmental Protection (NJDEP). The total production capacity of the well field is 11.00 MGD. The present capacity of the surface water supply intake is 16 MGD.

The BTMUA has been granted diversion rights of 385.00 million gallons (MG) per month by the NJDEP, with a maximum of 327.81 MG from the Cohansey wells and surface water combined. There are no limitations on the daily diversion so long as the monthly and yearly totals are not exceeded. The total annual diversion limit is 3,496.70 MG, which is an annual average of 9.58 MGD.

The BTMUA's existing water treatment plant has a maximum capacity of 16 MGD. The plant is designed to produce water at a peak hourly rate of 20 MGD for short periods of time. The excess capacity is required to meet the summer peak demands, which are substantially higher than winter demands.

Seasonal fluctuation in water use is due primarily to weather patterns and, secondarily, to increase summer populations. The last six years have shown only a slight increase in the average water demand from 7.29 MGD in 1994 to 7.61 MGD in 1999. The peak demand has reached as high as 13.34 MGD in 1999.

The Water Distribution and Storage System

Except for the Barrier Island, the BTMUA supplies water to all those areas of the Township, which are developed. The New Jersey American Water Supply Company supplies water to that portion of the Township, which lies on the Barrier Island between the Atlantic Ocean and Barnegat Bay. There are 1,425 water customers on the Barrier Island that are not being serviced by the BTMUA. The BTMUA's distribution system consists of approximately 336 miles of pipe, which range in diameter from 4" through 20". Major transmission lines extend from the water treatment plant to the storage tanks and then to the domestic distribution pipelines. The system delivers water to approximately 32,410 users.

The BTMUA service area consists of a low service zone and a high service zone. Water is stored in two standpipes in the low service area (each containing two million gallons of water), and in two standpipes located in the high service area (one having a storage of two million gallons, the other 0.35 million gallons). There is also an additional 0.32 million gallons of water stored in the clear well below the water treatment plant and 1 million gallons in the storage tank at the plant site. Of the total 7.67 million gallons stored within the water system, approximately two million gallons are available to meet the operating needs of the water system and are therefore considered usable volume for meeting the normal consumption. The remaining storage is considered to provide water for fire-fighting purposes and can be removed from the water system through any of the 2,114 fire hydrants maintained by the BTMUA for fire-fighting purposes. The BTMUA also owns and operates six water pressure booster stations to increase the pressure of the water for the higher areas of the Township.

It should be understood that the BTMUA is located in the NJDEP's Water Supply Critical Area #1 and this designation has severely restricted groundwater withdrawals. In order to lessen reliance on groundwater, and to increase the reliability of the system, the BTMUA has evaluated numerous water supply initiatives and has begun the construction of a 900 million-gallon pumped water storage reservoir. The reservoir site is located on the border of Brick and Wall Township and is currently anticipated to be operational by 2003.

The Sewerage System

As of September 1, 2000, the BTMUA served 33,796 sewer customers. The sewage collection system within the Township consists of approximately 340 miles of sewer pipe and 25 pumping stations, serving all developed areas of the Township, including the Barrier Island. Approximately 107,622" of gravity sewer mains traverse the Township ranging in diameter from 16" to 72". Most of the sewerage system has been constructed within the past twenty-five years and a limited portion of the system is now in need of rehabilitation. For this reason, the BTMUA has initiated a long-term rehabilitation project to address the high priority areas in the system.

Sewer system maintenance also includes periodic inspection and flushing of the lines. The BTMUA uses video cameras to inspect the sewer pipes, using its own TV truck and full-time crew.

Currently, the bulk of sewer extensions being installed throughout the Township are constructed by developers of various projects. Upon completion, the lines are donated at not cost to the BTMUA and thereafter are operated and maintained by the BTMUA.

The BTMUA currently has 25 pumping stations in operation. Similar to the collection system, all stations have been constructed within the last thirty years. A continuing program of operation, maintenance and evaluation is being carried out in order to maximize the operating efficiencies of the stations.

The BTMUA has a service contract with the OCUA. The OCUA agreement provides for the treatment and disposal of all the wastes collected by the BTMUA's sewage collection system. The BTMUA provides for the collection of the sewage within the Township which, in turn is discharged into the trunk sewers of the OCUA.

The OCUA provides treatment of all sewerage within the Township. The OCUA treatment plant, the Northern Water Pollution Control Facility, is located off of Mantoloking Road and is permitted by the NJDEP Pollutant Discharge Elimination System to discharge the treated effluent one- mile off shore of Mantoloking, NJ through 5,000' of piping into the Atlantic Ocean. The OCUA plant is a secondary treatment plant using the activated sludge technology to more efficiently treat the sewage before discharge. The capacity of the OCUA plant is currently 32 million gallons/day (MGD) and had an average daily flow of 22 MGD in 1999.

The estimated 2000 population for the Township is 76,509 full-time residents. The total population increases during the summer season due to the influx of vacationers. The growth in the Township is almost exclusively residential units, of which a significant portion is senior citizen or adult communities. Residential customers constitute the major users of the BTMUA systems, accounting for 71% of the system demand in 1999. In addition, there are both commercial and industrial customers, however, with the exception of Brick Hospital, none of these constitute major water users.

Environmental Compliance

All BTMUA operations are in compliance with the environmental guides prescribed by the various State and Federal regulatory agencies. The BTMUA maintains State-licensed certified laboratory, staffed by a graduate chemist, to perform all necessary testing. The BTMUA also employs a State-licensed Water Treatment Operator (T-4), a Water Distribution Operator (W-4) and a Sewage Collection System Operator (C-4). These licenses are of the highest level attainable and require monthly reporting of environmental compliance.

Public Works

The Department of Public Works performs some of the Townships most important services for the people of Brick Township. These include the collection and disposal of solid waste, leaves and recyclable, the paving and maintenance of Township roads and drainage facilities, the maintenance and repair of Township vehicles, the operation of two recycling collection facilities, snow plowing and the maintenance of the Townships parks. Brick Township also has a fully automated solid waste collection and semi-automated recycling collection system.

Solid Waste Disposal and Collection System

The Township of Brick operates weekly curbside collection of solid waste. The Township employs an automated collection system which uses special trucks with robotic arms that lift specially designed carts (provided to the residents by the Township), dump their contents into the truck and replace the cart to the curbside. The automated system requires only one driver / operator, and reduces manpower requirements, enhances worker safety, dramatically reduces on the job injuries and resultant workman's compensation costs, and increases productivity.

Ocean County Landfill - Manchester

The Township utilizes the Ocean County Landfill located in Manchester for its solid waste disposal needs. On average, the Township disposes of over 31,000 tons of solid waste a year at that facility. As a result of solid waste deregulation and the elimination of some extraneous solid waste tipping fee taxes, the Municipal Tipping Fee has dropped into the low \$50s per ton in the last several years. It is anticipated that the Ocean County Landfill will continue operating for the next two decades.

Private Haulers service most of the Commercial Facilities in Brick Township. These include Waste Management, Marpal, Big-n-Little Carting, and Ocean Carting. Most of them utilize the Ocean County Landfill. When the automated collection system began in the township, small businesses and commercial uses continued to be serviced by municipal solid waste pickup. However, new businesses or any business that changes the operation or land use through municipal review must begin to provide their own solid waste pickup.

Brick Township currently has three landfills, two of which are closed. The only operating landfill is at the Ridge Road Public Works facility. This facility is utilized exclusively for leaves and composting. The James H. James Landfill was a privately owned and operated landfill that was closed by NJDEP in 1986. This landfill had experienced problems with methane gas in the past. The NJDEP has since installed a permanent methane extraction system which seems to have alleviated the problem. Another major problem has been that the landfill was not correctly delineated when closed and as a result, several homes were built close to the edge of the buried wastes.

The Township of Brick owns the other landfill named for its previous owner French. The French's Landfill was purchased by the Township in 1974, operated by the Township for several years and ultimately closed by the Township in April 1979. Unfortunately, contaminants from the landfill have leaked into the groundwater and migrated off of the site. In September of 1999, the Township imposed a ban on the use of private irrigation wells in the vicinity while testing was conducted to determine the extent of contamination. Following delineation of the contamination plume, the Township reduced the size of the ban by approximately forty-percent. The Township has installed additional permanent monitoring wells and will be sealing the affected wells in the coming months.

Recyclables

The Township of Brick collects residential recyclables at the curbside weekly. Recyclable items are newspaper, junk mail, magazines, plastics, aluminum, glass and cardboard. The Township also operates a recycling / disposal facility at Ridge Road for residential use. In addition to standard recyclables, residents can drop off construction debris, scrap metal and yard waste at this facility.

After collecting the recyclables at the curbside, the recyclables are brought back to Ridge Road and dumped into large roll-off containers. When these containers are full, they are transported to the Northern Ocean County Recycling Facility in Lakewood. Leaves are composted at Ridge Road. Brush is transported to the Lakewood facility for handling by the County.

Maintenance and Road Facilities

The Public Works Department maintains all Township vehicles including police cars, garbage trucks, recycling trucks, and municipal light trucks as well as the community's first aid squad vehicles. Altogether, the department is responsible for nearly 300 vehicles.

The Township currently operates two street sweepers. They generally operate during spring, summer and fall. Snowplowing is performed by the Township utilizing dedicated snowplowing trucks. During plowing operations, through streets and intersections are given priority. Once these have been cleared, single passes are made down the middle of all streets to open them up for emergency vehicles. Once that has been accomplished, all streets are then plowed curb to curb. Sand and salt are kept at Ridge Road in a storage building.

The Township has its own in-house paving program. From late spring until early fall, Township crews re-pave Township streets in residential areas. Some re-paving jobs are more complex and require outsourcing.

The Township does perform some storm water drainage maintenance. This includes cleaning out storm drains. Some drainage basins are maintained by the Township; others are the responsibility of the development associations that the basins serve.

The Township owns and operates three public ocean beaches. The Department of Public Works rakes these beaches frequently during the summer months. In the spring, the department and students from the elementary schools plant dune grass at the beaches in an effort to provide for dune stabilization and reduce erosion.

Other Public Utilities

Other utility companies supply Brick Township residents with cable TV, natural gas, electric and telephone services.

Cable TV

Cable services are provided through the Comcast Network. Cable hook-up services are available for all residents of the Township. Comcast also makes Brick Township its home for billing and maintenance services. The building is located on Brick Boulevard.

Natural Gas

Natural Gas is also available to all residents in the Township through underground gas piping. The natural gas is distributed through NJ Natural Gas. However, natural gas suppliers are chosen by the customer as a result of the deregulation of the energy industry.

Electric

Electric supply is distributed to all residents through Jersey Central Power and Light. However, energy suppliers are chosen by the customer as a result of the deregulation of the energy industry. Deregulation of the electric generation industry and the unbundling of services have failed to produce a significant response to consumers all across the state, including here in Brick Township. Electricity is provided through underground utilities in newer developments and along power lines that line most streets and highways within the Township.

Telephone

Telephone services are provided through a variety of companies, available to each homeowner. These companies will provide local and long distance services, if desired to all residents of the Township. One of Verizon's maintenance and storage facilities is also located within the Township. The building is located on Rt. 88 west, east of the Laurelton intersection. Telephone services are provided through telephone wires that traverse the Township along roads and highways. In newer developments, underground hook-ups are provided through fiber optic cables.