

## **UTILITY SERVICE ELEMENT**

Utility services play a critical role in shaping future growth. The availability of sewer and water lines is a reliable indicator for assessing when and where new development will take place. The presence of these utilities permits growth in appropriate locations where the installation of on-site sewage disposal systems and/or private wells is impractical due to environmental constraints. By the same token, inappropriate expansion of these services can result in development inconsistent with the Master Plan, such as in areas that are environmentally sensitive, of historic significance or designated for open space preservation. The purpose of the Utility Service Element is to ensure the existence of an adequate infrastructure for the present and projected population of Toms River Township without adversely affecting the environment or the community's quality of life.

### **Solid Waste Disposal**

The Toms River Township Public Works Department provides curb-side collection of refuse. Twice a week garbage collection begins for the barrier island only, the week prior to Memorial Day and continues through the end of August, every Monday and Thursday. The off peak season collection for the barrier island is on Mondays only. Mainland garbage collection is once per week year round. Recyclables are collected once a week year-round and the Township collects all large or bulk items five days a week along with the normal household collections. Also, the Department of Public Works recycles electronic equipment at the Township's recycling center on Church Road. The Recycling Plan Element of this Master Plan provides details on the Township's recycling efforts and long-range goals.

Solid waste generated by the Township is hauled to the Ocean County Landfill, located in Manchester Township. This 700 acre landfill began accepting waste in 1972 and is permitted to continue receiving waste until 2034. While this is more than sufficient for the Town's needs we should strive to reduce the amount of waste being transferred to the landfill for environmental and financial reasons. Private composting should be encouraged with a future goal of Township curbside composting.

### **Collection Methods for New Developments**

Plans for multi-family developments should provide for trash and recycling collection through the use of common trash and recycling roll-off containers respectively. This requirement Planning and Zoning Board approvals shall reflect this also. The Township can provide pickup for these. This is the most cost effective method of collection and will significantly reduce the need for additional staffing, as these new development are constructed.

## **Water Service**

The Township has identified water service as an issue to be addressed on many fronts. The mainland is served by Suez Water Toms River and the barrier island utilizes New Jersey American Water.

Some areas of the Township still do not have public water, relying instead on private wells. Some of the shallow wells in the Township have questionable water quality because of pervasive ground water contamination. It is a goal of this Utility Services Element to make potable water available to all residents of the Township through a comprehensive water system that would accommodate not only future growth, but the ongoing needs of existing development.

Toms River Township is provided water service by four separate public water supply systems. Although New Jersey American Water Company serves the majority of residents in the state of New Jersey, the majority residents in Toms River Township, South Toms River Borough and Berkeley Township are provided potable water service through Suez Water. The Suez Water system utilizes 24 wells located in four different aquifers, namely the Kirkwood-Cohansey, the Piney Point, the Upper Magothy aquifer and the Middle Magothy aquifer. The supply wells, which range in depth from 50 to 1,875 feet in depth, supply customers with approximately 12 million gallons of water a day. In the summer months, during times of high demand, customers may also receive water from an interconnection with New Jersey American Water Company (NJAWC).

Capital improvement projects for Suez Water are focusing on main replacement programs, efficiency projects and incorporating smart technologies.

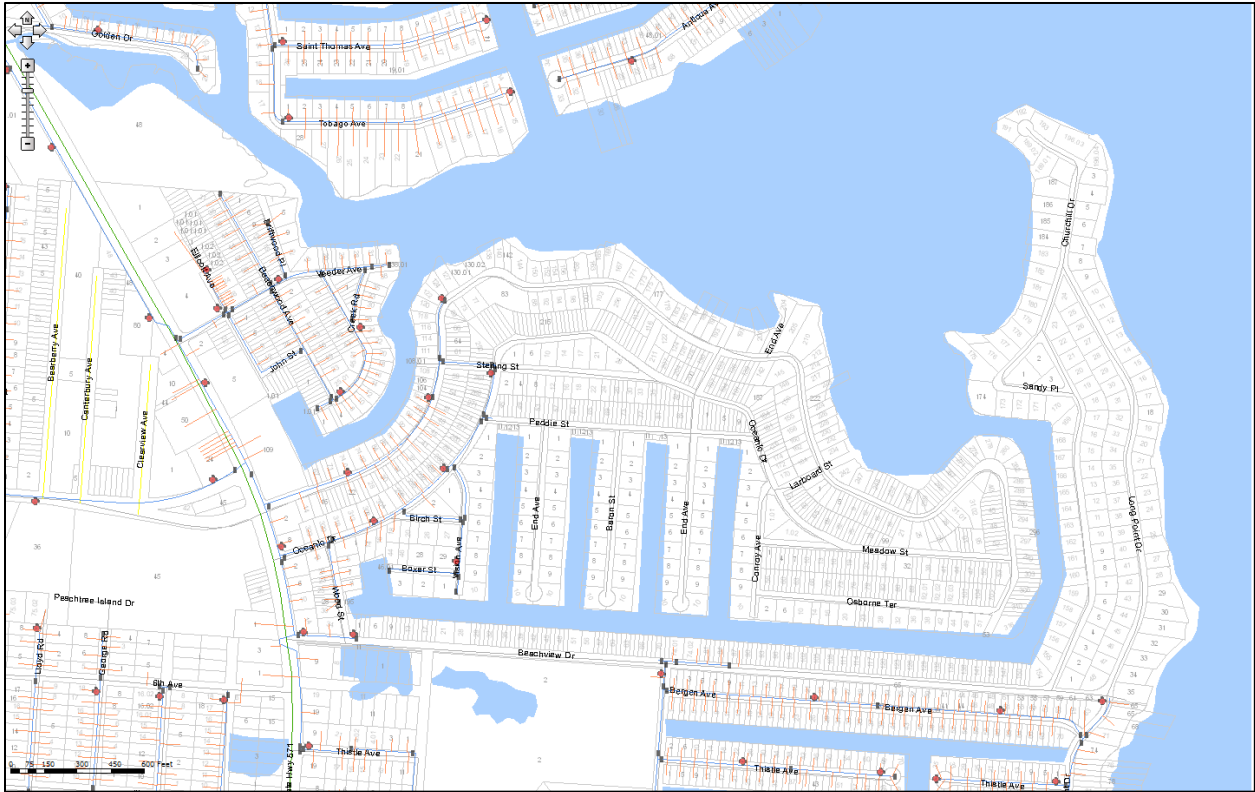
The projects are intended to work together to improve operations which will in turn improve water quality and pressures. The most notable project would be the recent North Dover Booster Pump Station which has increased pressures within the north western portion of the Township.

Suez Water provided 4.02 Billion Gallons of potable water in 2015. The average daily demand for this year was 11.03 MGD, with a peak daily demand of 14.04 MGD during the summer months and averaging 8.48 during the winter months.

The facility services 120,000 total population and approximately 89,000 in Toms River. “Suez Water has also incorporated resiliency measures into their systems by adopting the US EPA Climate Resiliency Evaluation and Awareness Tool, a climate risk assessment and planning application for water, wastewater and stormwater utilities.”<sup>1</sup>

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<sup>1</sup> Heyer, Gruel and Associates *Toms River Sustainability and Resiliency Master Plan Update* October 2016



**Figure 1: The Windsor Park neighborhood of East Dover on the Barnegat Bay remains unserved by public water. These areas are identified for expansion of water service by the Suez Water Company.**

**Stormwater Management and Flood Control**

Certain of the older portions of Toms River Township residential areas to the south of Lakehurst Road, and the Gilford Park section, require updated drainage facilities. Hurricane Sandy which hit the coast of NJ in October of 2012 has also raised a number of issues with regards to flooding especially on the barrier island. It is the goal of Toms River to guide both the barrier island and the mainland towards a more resilient infrastructure both hard and green and also develop practical land use patterns while keeping in mind the flood prone areas since these areas are subject to frequent flooding from stormwater flows following heavy precipitation events. However, several sections of Toms River Township continue to experience flooding problems from less severe storm events and proximity to the ocean or the river.

Toms River Township is working to both monitor and correct areas of flooding throughout the Township. Each year, the Township includes drainage improvements as part of its Capital Improvement Program to address drainage and flooding issues that have been reported by residents. Also, as a preventive measure, the Department of Public Works routinely vacuums inlets prone to flooding and clears away fallen leaves during the autumn months.

There are current plans to elevate Washington Avenue on the barrier island since it is only 6 inches above sea level frequently floods during a full moon and high tide. Another planned road elevation is Creek Road in Windsor Park. The Downtown Circulation Plan, completed under a Post Sandy Phase 2 grant in 2016, also recommended that Herflicker Street be reconstructed through to Highlands Parkway and that it be elevated as a flood mitigation measure. The Township should consider elevating additional roads where there is repetitive flooding and where elevating the road would solve the flooding issue.

The Township will also seek to improve water quality as sites redevelop within Plan Endorsement Areas.

### **Groundwater Protection**

As the Township's potable water supply source is from private wells and water systems that utilize only wells, both present and future contamination of the Township's groundwater is of special concern. This concern stems from water being extracted past an aquifer's sustainable yield and the consequent saltwater intrusion that threatens the water supply if this process continues.

As wellhead protection relates to septic systems, the Ocean County Health Department is the sole authority that grants permits and inspects the septic systems within Toms River Township.

Yet another vital tool to protect groundwater is through the adoption of wellhead protection boundaries. The New Jersey Department of Environmental Protection (NJDEP) provides mapping of the wellhead protection areas for public supply wells in Toms River Township. According to the NJDEP, "A Well Head Protection Area (WHPA) in New Jersey is a map area calculated around a Public Community Water Supply (PCWS) well that delineates the horizontal extent of groundwater captured by a well pumping at a specific rate over a two, five and twelve-year period of time for unconfined wells....the confined wells each have a fifty foot radius delineated around them which serves as the wellhead protection area to be controlled by the water purveyor in accordance with the Safe Drinking Water Regulations (see NJAC 7:10-11.7(b) 1). The mapping, which was completed in response to the Safe Drinking Water Act Amendments of 1986 and 1996 as part of the Source Water Area Protection Program (SWAP), delineates four areas of protection that should be applied to public water supply wells in New Jersey. These four areas, which are defined on **Map 6**, are the first step in defining the sources of water to a public supply well. Within these areas, potential contamination will be assessed and appropriate monitoring will be undertaken as subsequent phases of the NJDEP SWAP program.

### **Sanitary Sewerage**

The Toms River Township Sewerage Authority was organized in 1949 with the responsibility of providing public sanitary sewerage facilities in Toms River Township. The authority's original treatment plant, which was located on the Toms River, now is occupied by the Toms River Township Park-and-Ride facility. Through time, this

authority has been incorporated as part of the Toms River Township Municipal Utilities Authority (TRMUA), which is responsible for sanitary sewerage service and maintenance.

The TRMUA has a customer base of 47,000 and maintains 644 miles of sewer pipe within the Township (209 of which are in the R.O.W.). The TRMUA is responsible for maintaining these lines and has thus developed a systematic program of upgrading and rehabilitating sewer lines throughout the Township. This program includes line replacement, manhole grouting, pipe joint grouting and lining of the entire 5.5 miles of the original system. However, the entire system discharges directly into the Ocean County regional system for treatment which is controlled and maintained by the Ocean County Utilities Authority (OCUA).

The Toms River Township Chapter of the Ocean County Wastewater Management Plan was adopted in December of 2015. The document describes the wastewater management system as follows:

“All existing development in Toms River is connected to the existing sewer system. Wastewater is collected through the Township’s lateral lines. The municipal system connects to one of several OCUA lines which ultimately convey wastewater to OCUA’s CWPCF in Berkeley Township.

In Toms River’s oceanfront communities, two OCUA interceptors run along the two segments’ bay shores, approaching a convergence point at the Dover-Ortley Beach Pump Station (CPS-19) near 8<sup>th</sup> and Washington Avenues. Also converging at this pump station is a force main which originates in the residential developments on Toms River’s mainland near Goose Creek; it crosses under the Barnegat Bay carrying wastewater to the Dover-Ortley Beach Pump Station. From this station, a force main again crosses the Barnegat Bay, heading west, and emerges on the mainland along Beachview Drive. The main continues its westerly course until it reaches Roosevelt Avenue, at which point it turns south and splits into two forks which enter Island Heights Borough from the north and east. The line emerges from Island Heights as a single interceptor, flowing westward along the north bank of the Toms River. Along the way, the wastewater carried by this line passes through the Dover-Magnolia Avenue Pump Station (CPS-15). The interceptor converts to a force main in the vicinity of Cranmoor Drive, before reverting back to an interceptor on the western side of the Toms River Country Club. The interceptor then continues traveling west toward the Exit 81 interchange of the Garden State Parkway, where it converges with two other interceptors.

One of these two inland interceptors enters the municipality from Manchester Township’s eastern corner, and runs south along the course of the Toms River. The second enters the municipality from Berkeley Township, traveling east along the railroad right-of-way which forms part of the boundary between Toms River and Berkeley Townships. These lines converge with the line approaching from the coast, then continue as a single interceptor flowing south along the Garden State Parkway and into Berkeley Township.”

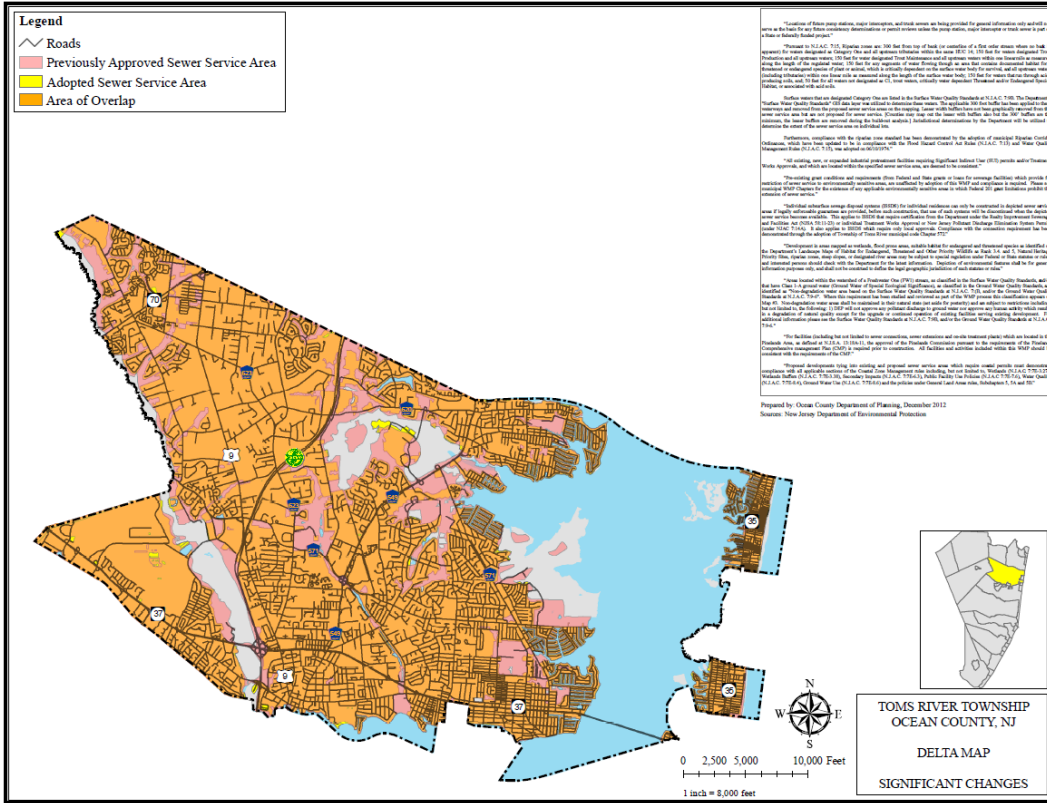


Figure 2: Toms River Chapter of Ocean County Wastewater Management Plan Sewer Service Area Changes (2015)

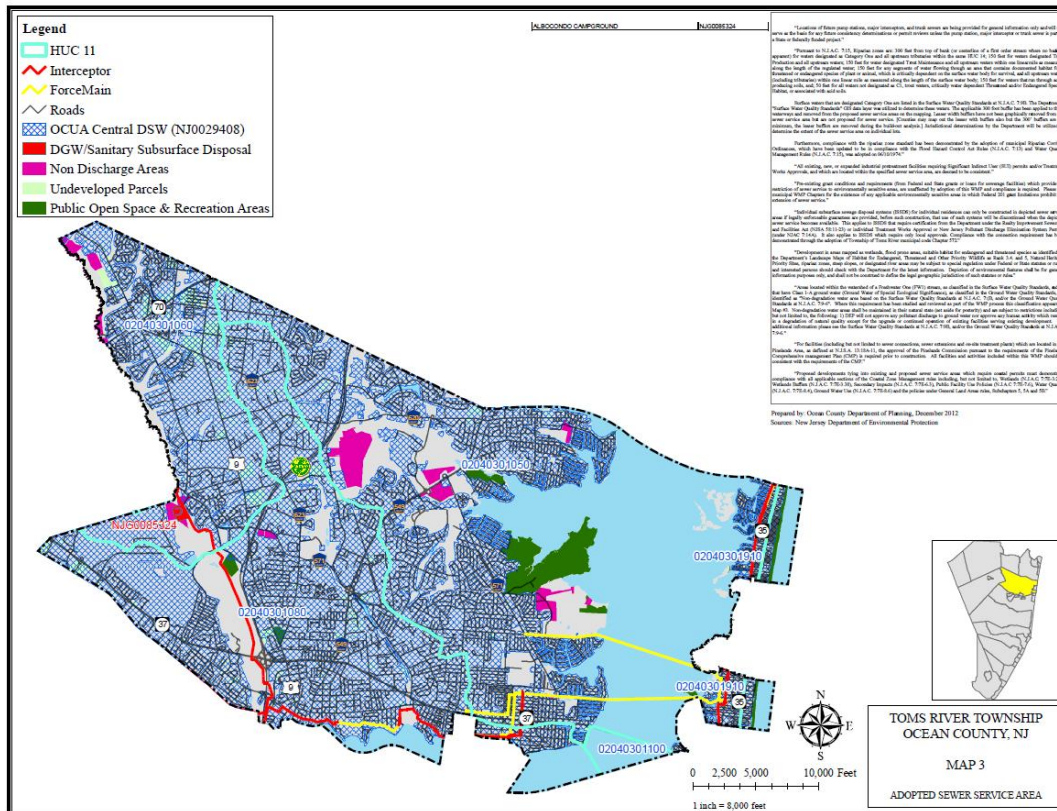


Figure 3: Map of Sewer Service System - Ocean County Wastewater Management Plan - December, 2015

The OCUA is a public entity charged with the management of Ocean County's wastewater services. The OCUA provides wastewater treatment services for industrial, commercial and residential users in Ocean County. This regional wastewater reclamation system operates three wastewater treatment facilities with a total combined capacity of eighty million (80) gallons per day. The collection system consists of forty (40) pumping stations, approximately two hundred (200) miles of force main and gravity lines and three ocean outfall lines which serve thirty-one (31) municipalities in Ocean County and five (5) municipalities in Monmouth County.

Toms River Township is served by the County's Central Water Pollution Control Facility (CWPCF). The treatment facility, which has been in operation since 1979, has a rated capacity of 32 million gallons per day (MGD). In 2015, the average daily flow at the plant was almost 21.4 MGD. After disinfection, treated effluent is discharged through a gravity outfall into the Atlantic Ocean approximately one mile offshore.

The anticipated improvements and/or needed upgrades to the Toms River MUA over the next ten years will include "curing in place" the lining of deteriorating pipes and manholes, remove and/or replace structurally flawed pipes and manholes, install supplemental/backup force mains at pump stations and to reconstruct or upgrade pump stations including mechanical and electrical equipment and instrumentation.

### **Waste/Energy Management**

As fossil fuels and other natural resources continue to be extracted and utilized beyond their sustainable yield, both public utilities' infrastructure and their energy supply should be examined as part of any master planning effort. Toms River Township and Ocean County have been at the forefront of innovation as evidenced by the success of waste level reductions associated with the recycling program. However, it is imperative that ground-breaking green technologies continue to be explored to push the Township closer to an environmentally sustainable future.

### **Electricity**

Electricity is provided by JCP&L utilizing six substations within the Township, four of which are in or near a floodplain. Two of these substations are located on the barrier island, one on Washington Avenue and the other on Kittiwake Avenue and have



recently been improved with wet proofing to help make them more resilient to flooding and therefore have limited interruption in service. The wetproofing consists of a 4' high HESCO flood barrier wall surrounding the interior of both substations. The Township worked with the utility company to make certain these measures were put in place as soon as possible.

The remaining two, at 2114 Route 37 and 322 West Water Street, should be prioritized for water-proofing.

### **Recommendations**

The following are recommendations to achieve the goals and objectives set forth in this Master Plan:

1. Provide for the alleviation of existing stormwater management and flooding problems through the implementation of both structural and non-structural Best Management Practices on new developments and incorporating these principles when retrofitting existing stormwater basins.
2. Prioritize the extension of public water and sewer infrastructure to all parts of the Township where development exists or is zoned for development especially within cores and centers as identified in 2016 Smart Growth Plan, particularly Route 37 East Highway Core, which contains the Coates Point Redevelopment Area.<sup>2</sup>
3. Follow national NFPA or ISO standards for water supply to ensure that all Toms River Township residents have adequate water supply and pressure.
4. Develop a program for the continued upgrading of the water system, such as replacing mains, adding wells or towers, and providing water to older areas of the Township that continue to get their water from wells.
5. Work with NJDEP to dredge lagoons to remove excess silting and debris when necessary.
6. Continue to plan and implement new utility infrastructure to replace aging and obsolete systems and to serve redevelopment areas. Supplement and/or convert to green infrastructure where feasible in order to reduce the

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<sup>2</sup> Heyer, Gruel and Associates *Toms River Sustainability and Resiliency Master Plan Update* October 2016



overall flow into stormwater infrastructure. Put incentive strategies in place to encourage the use of green infrastructure.

7. Install utilities underground, where possible.
8. Install appropriate street trees (i.e. shade trees), but coordinate tree species to prevent conflict with overhead wires.
9. Move from reliance on traditional engineering methods to green infrastructure such as bio-retention swales, green walls and roofs, pervious pavements and wetlands restoration and also construct new wetlands.
10. Flood-proof all MUA facilities located within or near a floodplain.
11. Address the use of wireless micro sites in the ordinance such as permitting its use in appropriate zones since they are much less intrusive than current telecommunication towers and the same regulations should not apply. They can be installed on existing right-of-way infrastructure like street signs, telephone poles, or streetlights.
12. Many of these goals mirror those stated within the 2016 Smart Growth Plan. Additional goals mentioned in the Smart Growth Plan that should be included are: continue to map and monitor well-head protection areas and connect Route 37 Redevelopment Area to water infrastructure and if needed place aging sewer and water infrastructure.
13. “Reduce impervious surface in each sub-watershed within Toms River by 10% by undertaking the site identification and retrofitting process described in Rutgers University Green Infrastructure Guidance Manual for New Jersey (2015)”<sup>3</sup>

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<sup>3</sup> Heyer, Gruel and Associates Toms River Sustainability and Resiliency Master Plan Update October 2016