

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Areawide Water Quality Management Plan for Monmouth County

Watershed Management Area 12
and portions of
Watershed Management Areas 9, 10, 11, 13, 20

February 21, 2012

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I. INTRODUCTION

I. INTRODUCTION

Monmouth County, as the Designated Areawide Water Quality Management Planning Agency, is providing for approval by the New Jersey Department of Environmental Protection (NJDEP) a Wastewater Management Plan (WMP) for Monmouth County in compliance with New Jersey Department of Environmental Protection's Wastewater Management Planning Rules that will amend the Areawide Water Quality Management Plan for Monmouth County.

As the Designated Planning Agency, Monmouth County submitted a Wastewater Management Plan in 2003 and again in 2006 to NJDEP for their approval based on existing and future sewer service areas (SSA) and discussions with municipalities, sewerage authorities and other stakeholders. As part of this inclusive planning process all existing WMPs in the county were reviewed and incorporated into the WMP for Monmouth County. The purpose of this plan was to provide a comprehensive WMP for Monmouth County that sets out countywide wastewater treatment and conveyance capabilities.

NJDEP made major changes to the WMP for Monmouth County by removing numerous tracts of land from sewer service based on their environmental data, Executive Order 109 and the proposed NJDEP Wastewater Management Planning Rules. County Planning Board staff reviewed each of the removal areas and found that they had serious concerns about why many of the areas were removed from sewer service. County Planning staff prepared a detailed analysis of each removal area and presented it to NJDEP. Monmouth County, then notified all key plan participants of these changes. County Planning staff served as a facilitator and arranged meetings with NJDEP, the municipalities, sewerage authorities, and other stakeholders to discuss the changes to the WMP. Monmouth County also supplied the stakeholders with up-dated Monmouth County data to help all involved present their cases to NJDEP. During the meetings other recommended changes to the WMP were made by municipalities, sewerage authorities and other stakeholders. Any final decision about which areas were removed from or remained in sewer service was determined by NJDEP. NJDEP is the entity that approves the Wastewater Management Plan for Monmouth County. Monmouth County does not agree with all of the modifications made by NJDEP to the proposed sewer service areas.

Monmouth County is comprised of 53 municipalities. All but portions of four Monmouth County municipalities are part of Monmouth County's Water Quality Management Planning area. Portions of Freehold Township, Millstone Township, Howell Township and Wall Township that are primarily located in the Toms River and Metedeconk River drainage areas are included in the Northern Ocean County Wastewater Management Plan and are part of the Ocean County Water Quality Management Planning area. However, Monmouth County is the designated Wastewater Management Planning Agency for the entire county and therefore has WMP responsibility in the Northern Ocean County WMP area that extends into Monmouth County.

There are three Monmouth County municipalities that depend primarily upon Individual Subsurface Sewage Disposal Systems (ISSDS) that discharge to groundwater 2,000 gallons per day (gpd) or less for domestic wastewater treatment and do not have wastewater treatment agreements with a wastewater treatment facility. They are Millstone Township, Upper Freehold Township and Colts Neck Township. However, there are exceptions in two of the municipalities: Sanitary sewers provided by the Township of Freehold and the Manasquan River Regional Sewerage Authority serve a small affordable housing complex located in the southern area of Colts Neck Township and the Borough of Allentown Sewerage Authority serves the Upper Freehold Stone Bridge Middle School on Yardville-Allentown Road (*formerly known as the Breza Road site*).

The approval and adoption of this WMP for Monmouth County will supersede all existing WMPs in Monmouth County including the following adopted WMPs:

Western Monmouth Utilities Authority (WMUA)

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Bayshore Regional Sewerage Authority (BRSA)
Township of Middletown Sewerage Authority (TOMSA)
Two Rivers Water Reclamation Authority (TRWRA) (*formerly known as Northeast Monmouth County
Regional Sewerage Authority*)
Township of Ocean Sewerage Authority (TOSA)
South Monmouth Regional Sewerage Authority (SMRSA)
Manasquan River Regional Sewerage Authority (MRRSA)
Township of Wall Wastewater Management Plan
Township of Colts Neck Wastewater Management Plan
Township of Upper Freehold Wastewater Management Plan

This WMP also supersedes draft Wastewater Management Plans prepared by the following entities that were never adopted by the Department:

Monmouth County Bayshore Outfall Authority (MCBOA)
Long Branch Sewerage Authority (LBSA)
Asbury Park Water Quality Control Facility
Township of Neptune Sewerage Authority (TNSA)
Allentown Borough Sewage Treatment Plant
Roosevelt Borough Sewage Treatment Plant

The above documents were consulted in the preparation of this WMP.

II. SUMMARY OF SIGNIFICANT ACTIONS

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Upon adoption, this WMP will incorporate all past amendments and revisions that have been adopted by NJDEP in Monmouth County unless new information provided by the municipalities, sewerage authorities, NJDEP, or other interested parties during the WMP meetings, public meeting, and public hearing was sufficient to modify those past amendments and revisions.

The continuing planning process provides for the modification of this WMP, including the extension of sanitary sewer service, by amendment, revision, modification, or correction. All modifications to this WMP shall be processed according to N.J.A.C. 7:15 and according to the procedures set out by the Designated Planning Agency.

Any proposed subdivision resulting in six or more dwelling units or any development with a wastewater design flow in excess of 2,000 gallons per day to be served by subsurface sewage disposal systems within Monmouth County will be considered inconsistent with the WMP. A WMP amendment shall be required and the project must comply with the requirements outlined in N.J.A.C. 7:15-5.25(h)2 for conformance with the nitrate planning standard of two mg/l, using the Department's Recharge Based Nitrate Dilution Model.

General Significant Action

Per NJDEP directive, any pumpout facility for a marine sanitation device located at a marina shall discharge collected wastewater to the same treatment works as the land based sewage generating structures of the marina, and such connection is deemed consistent with this wastewater management plan.

New Jersey's Coastal Zone Management Program generally prohibits new development on beaches, dunes and in coastal high hazard areas; therefore, any of these areas previously included in sewer service areas were removed. Existing lawful development that is already connected to the wastewater treatment works remains consistent with this wastewater management plan. New development necessary to support the Department's public access policies for which there is no alternative location as demonstrated by a CAFRA permit issued by the NJDEP under N.J.S.A. 13:19-1 et seq., will also be considered consistent with this wastewater management plan.

Any areas once designated as a discharge to groundwater area greater than 2,000 gallons per day (gpd) and less than 20,000 gpd have been eliminated, as per N.J.A.C. 7:15-5.2(f). All areas not in a sewer service area are shown as discharge to groundwater of 2,000gpd or less. Wastewater treatment facilities that discharge to groundwater in excess of 2,000gpd are indicated and referenced by their New Jersey Pollutant Discharge Elimination System (NJPDES) Permit number, under which they are regulated. Detailed information on each of these facilities is found in Section VI of this WMP.

Significant Action With Respect To Colts Neck Township

An amendment to the County's WMP was adopted by the Monmouth County Planning Board on May 17, 2010 to provide for an increase in permitted wastewater flow to allow for the redevelopment of the former Meridian School. Upon NJDEP's adoption of the County draft WMP, NJDEP will signal their approval of this project and the applicant can proceed to apply for the appropriate State permits.

The former, Meridian School is proposed for commercial and office uses, and potentially for affordable housing units which would generate a wastewater flow of 14,950 gallons per day. Currently, the capacity of the existing system is 3,115 gallons per day. The applicant requested replacement of this system with one that will accommodate an estimated 14,950 gallons per day, in an area where 2,000 gallons per day is permitted. The facility is situated at Block 48, lot 19, also known as 20 Route 537 East.

Significant Action with respect to Holmdel Township

Holmdel Township sewer service areas shown in this WMP were mapped using the adopted BRSA WMP and Township of Holmdel mapping as references. Numerous consultations were held with the Township of Holmdel, BRSA, NJDEP, the New Jersey Highway Authority, and Lucent Technologies in an attempt to reach consensus as to mapping accuracy. According to a letter dated April 18, 2011 and an email dated April 25, 2011, both from NJDEP, the County was directed to retain SSA on the Garden State Arts Center/Turnpike Authority site (Block 27.01, lot 10; Block 47, lots 2, 2.01, 4, 4.02, 5.03, 5.04, 6) to support the mission of the Turnpike Authority. Additionally, in a separate letter dated April 18, 2011 and the same email dated April 25, 2011, both from NJDEP, the County was directed to retain SSA on the Bell Labs Holmdel Property (Block 11, lots 38, 38.02, 73.01-73.04) and to retain and expand SSA on the Bell Labs Crawford Hill Property (Block 27, lots 6, 6.01, 7).

BRSA and the Southern Slope

The County received a letter dated January 10, 2011 from Lomurro, Davison, Eastman & Munoz (representing Holmdel Township), explaining the August 14, 1997 Order and Final Judgement entered by the Honorable Robert J. Feldman, J.S.C. in the matter of Township of Holmdel vs. Bayshore Regional Sewerage Authority, et al., Docket No. MON-L-3889-96 ("BRSA Litigation"). The provisions of that Order reflected the provisions of a Stipulation of Settlement and Dismissal entered into by the parties. According to the letter, "the issue in the BRSA Litigation was whether the southern slope of Holmdel was exclusively within the BRSA franchise area or was a portion of the southern slope available to be serviced by the Township of Middletown Sewer Authority." The result of the litigation was that the southern slope of Holmdel would be within the BRSA franchise area and should Holmdel Township, at some future time, choose to include any portion(s) of the southern slope in a sewer service area, service would be provided by BRSA. Therefore, although the southern slope of Holmdel is not designated as within a sewer service area, it is within the BRSA franchise area.

Significant Actions With Respect To Marlboro Township

Marlboro State Psychiatric Hospital Complex

The Marlboro State Psychiatric Hospital complex, located within the Western Monmouth Utilities Authority (WMUA) franchise area, was closed in 1998. Many existing state-owned structures once conveyed wastewater to the Hospital wastewater treatment plant (WWTP) for treatment. The future use of the hospital site is still undetermined; however, the State is considering demolishing the buildings in the hospital complex. Marlboro Township adopted a Redevelopment Plan in May 2008 that includes the former hospital site. Based upon the redevelopment plan, a "core" area which has been historically used by the hospital has been identified for future "limited" development. Two of the goals of the redevelopment plan are "to limit wastewater treatment facilities to on site discharge to groundwater facilities consistent with NJDEP rules and regulations" and "to avoid the growth inducing effects of excess infrastructure capacity, and to limit groundwater diversion to the minimum necessary in order to service on site development". Therefore the township requested the 80-acre core "disturbed" area remain in an area of discharge to groundwater over 2,000 gallons per day.

Triangle Valley

In February 2004, Western Monmouth Utilities Authority (WMUA) requested a sewer service area expansion by approximately 18.1 acres in order to provide for a residential development, known as Triangle Valley (Block 159, lots 8, 9, and 10), that would generate 6,300 gpd of residential wastewater flow generated from eighteen clustered units and three existing single family residential units. This proposed amendment was reviewed by the Planning Board on April 19, 2004 and recommended in Resolution #04-10. These

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parcels were then placed in sewer service area in the draft County WMP, anticipated to be reviewed by NJDEP as part of the entire WMP, not as an individual amendment.

Subsequently, a revision was submitted in June 2008 by the owner (Kevin Ansell) of Block 159, lot 8 seeking expansion of sewer service area to his parcel. NJDEP found the request to connect a single family home with a failing Individual Subsurface Disposal System (ISSDS) to be Consistent in a letter dated March 9, 2009, because the ISSDS was found to be beyond repair. Therefore, this parcel was able to move ahead to connect to WMUA independent of NJDEP's review of the County's draft WMP.

The remaining two parcels of the initial amendment (Block 159, lots 9 and 10) were discussed at a December 18, 2008 meeting with NJDEP, WMUA, Marlboro Township, and Monmouth County Planning Board. It was agreed to provide sewer service to these two parcels. However, the Township reversed its position on Block 159, lot 10 in a letter dated March 24, 2009, and requested that Triangle Valley Residential Subdivision not be located within WMUA's SSA. Block 159, lot 9 was not mentioned, therefore remains shown in SSA.

The County requested clarification on Marlboro and WMUA's position on this parcel (Block 159, lot 10) in a letter dated November 10, 2010. WMUA responded on December 2, 2010 and deferred to the Township's position. The Township responded on February 28, 2011 stating that Block 159, old lot 10 (Triangle Valley Subdivision) was approved and constructed, and it was the Township's position that the lot should be included in the sewer service area. Therefore the map is shown as the following: Block 159, lots 8, 9, and old lot 10 are in SSA.

Significant Action With Respect To Middletown Township

Township of Middletown Sewerage Authority sewer service area has been expanded to include a section of Middletown Township in the area of Farview Avenue (Block 707, lots 6, 7, 8, 10, 16, 17 and Block 709, lots 1-5, 6.01, 6.02, 7, 9, 10). This revision was reviewed by the Planning Board on June 16, 2008 and recommended in Resolution #08-21 and reviewed by the Board of Chosen Freeholders on July 10, 2008 and approved in Resolution #08-630. This revision recognizes that eleven of the seventeen lots are developed residential lots, currently served by sanitary sewer, four developed residential lots are not currently served by sanitary sewer, and one undeveloped residential lot not currently served by sanitary sewer. This revision corrected the error that omitted lots currently being served and added five adjacent infill lots that could ultimately add six residences to sewer service.

Significant Actions With Respect To Upper Freehold Township

Commerce Park Site

The Upper Freehold Township WMP included the designation of 126,760 gpd discharge to groundwater for commercial uses for a site known as the proposed Commerce Park Planned Development (Block 44, lots 2 and 13, Block 45, lot 1). The Upper Freehold Regional School District received a revision to the Monmouth County AWQMP on August 6, 2007 that shifted 40,000 gpd to school use on Block 44, lot 13 with the remaining 86,760 gpd in commercial use on the other two lots.

On June 4, 2008, the WMP was further revised to expand the Allentown Borough Wastewater Treatment Plant (ABWTP) sewer service area to include Block 44, lot 13, the site of the Upper Freehold Regional School District Middle School Campus and for ABWTP to provide treatment for up to 30,000gpd of additional wastewater flow that would be generated from the proposed school. The original 126,760 gpd for the Commerce Park site was reduced by 30,000gpd to 96,760gpd allocated to Block 44, lot 2. Block 44, lot 2 has since been permanently preserved as passive open space owned by the State of New Jersey and Allentown Borough. Block 45, lot 1 has been preserved as passive open space funded in part through the

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NJDEP Green Acres Program. Both lots were then designated as Non-Discharge areas in accordance with the terms of the June 4, 2008 plan revision.

Ashford Estate

An amendment was adopted by the Monmouth County Planning Board on September 20, 2010 to include the proposed Ashford Estate project in the County's draft WMP. Upon NJDEP's adoption of the draft WMP, NJDEP will signal their approval of this project as well, and the applicant can proceed to apply for the appropriate State permits.

The amendment allowed for the expansion of an existing onsite wastewater treatment facility to accommodate the change in use from agricultural and residential to a wedding facility. The wedding facility includes a 12-room bed and breakfast, a 250-seat banquet hall, and 100-seat chapel. The amendment was needed because the project proposed a wastewater flow of 3,400 gallons per day in an area where 2,000 gallons per day is permitted. The facility is located in Upper Freehold Township situated at Block 50, lot 11.03, also known as 637 Province Line Road.

Significant Action With Respect To The Manasquan River Regional Sewerage Authority Service Area

It was found during compilation of the countywide WMP that the MRRSA service area as shown in the MRRSA 1993 adopted WMP was inconsistent with current municipal master plans and the State Development and Redevelopment Plan (SDRP). The 1993 MRRSA WMP showed the entire WMP planning area as a future sewer service area. However, over time, the townships of Freehold and Howell had changed their master plans and zoning and worked to preserve significant acreage. Today, extension of sanitary sewers to serve the entire land area of the two townships is not practical or feasible nor is it desired by either township.

Howell Township re-visited its Master Plan to be sure it was consistent with the SDRP and current zoning. The township then developed its own WMP and incorporated it into the utility section of its Master Plan. Monmouth County WMP staff then created a new MRRSA map that reflected the changes recommended by the two municipalities. The new MRRSA map rolls back approximately 34,000 acres from sewer service area to areas which will discharge to groundwater via ISSDS of 2,000 gpd or less. The new map was approved by MRRSA and its member municipalities and this information was incorporated into this WMP.

MRRSA is a conveyance authority that does not own or operate a wastewater treatment facility. All wastewater in the MRRSA franchise area is conveyed to Ocean County for treatment by the Ocean County Utilities Authority (OCUA) at its Northern Ocean County Wastewater Treatment Facility. The MRRSA franchise area is therefore within the OCUA Northern Ocean County service area.

Significant Action With Respect To Wall Township

A revision to the County's WMP was requested for Block 917, Lot 65 in Wall Township by ASP Wall, LLC. Their site, proposed for development as a commercial office/warehouse facility known as Belmar Boulevard Executive Plaza, was within the sewer service area of the Ocean County Utilities Authority Northern Ocean County Wastewater Treatment Facility, as conveyed through MRRSA. However, MRRSA does not presently provide sewer service in the vicinity. South Monmouth Regional Sewerage Authority (SMRSA) does provide sewer service to facilities on the neighboring Monmouth Executive Airport site. Letters were received from the Wall Township Administrator, the Ocean County Utilities Authority Executive Director, and the South Monmouth Regional Sewerage Authority Executive Director, all of which state no objection to transferring the subject property to SMRSA. Therefore, the Monmouth County Planning Board adopted Resolution #12-11 on March 19, 2012, to revise the WMP to show Block 917, Lot 65 as within the sewer service area of SMRSA.

**III. DISCUSSION OF EXISTING DOMESTIC AND
INDUSTRIAL TREATMENT FACILITIES AND
SEWER SERVICE AREAS**

III. DISCUSSION OF SEWER SERVICE AREAS AND EXISTING DOMESTIC AND INDUSTRIAL TREATMENT FACILITIES

Mapping And Definition Of Sewer Service Areas

Monmouth County has divided the County Wastewater Management Planning Area into eight Wastewater Management Planning Regions. The Regions are consistent with previous WMPs generated by the various treatment facilities in the County. They are also consistent, given practical constraints, with respect to the NJDEP Watershed Management Areas (WMAs) in Monmouth County.

Sewer service area maps show “existing sewer service areas” as those places where sanitary sewer infrastructure is currently installed or where installation is imminent during the review period of this WMP. The maps included in this WMP which depict future sewer service areas for each of the wastewater treatment facilities show the areas where sewers are expected to be installed within the 20 year planning period. If an area is not defined as either an existing or future sewer service area, then it is an area which allows for wastewater facilities with flows of less than 2,000 gallons per day which discharge to ground water.

Existing Domestic And Industrial Treatment Facilities

There are 41 onsite facilities in this WMP. There are eleven regional public wastewater treatment facilities, all which discharge to surface water. They are: Bayshore Regional Sewerage Authority, Township of Middletown Sewerage Authority, Two Rivers Water Reclamation Authority, Long Branch Sewerage Authority, Allentown Borough Wastewater Treatment Plant, Roosevelt Borough Wastewater Treatment Plant, Asbury Park Water Quality Control Facility, South Monmouth Regional Sewerage Authority, Township of Neptune Sewerage Authority, Township of Ocean Sewerage Authority, and Western Monmouth Sewerage Authority. In addition, there are three regional conveyance utilities in the Monmouth County Planning Area: the Bayshore Regional Outfall Authority, Atlantic Highlands-Highlands Regional Sewerage Authority and the Manasquan River Regional Sewerage Authority.

The Bayshore Outfall Authority collects treated sewerage from the Bayshore Regional Sewerage Authority and the Middletown Regional Sewerage Authority and discharges to the Atlantic Ocean via a submarine trunk line in Raritan Bay. The Manasquan River Regional Sewerage Authority collects untreated sewerage from the municipalities in its franchise area which are Freehold Borough, Howell Township, Farmingdale Borough, and portions of Freehold and Wall Townships. A small portion of Colts Neck Township is served on a customer basis. The wastewater is sent to Ocean County for treatment by the Northern Ocean County Utilities Authority treatment facility and discharged to the Atlantic Ocean.

All existing, new, or expanded industrial pretreatment facilities that require Significant Indirect User (SIU) permits and/or Treatment Works Approvals (TWA), and which are located within the specified sewer service area, are deemed to be consistent with the Wastewater Management Plan, as per NJDEP.

Individual subsurface sewage disposal systems for individual residences can only be constructed in depicted sewer service areas if legally enforceable guarantees are provided, before such construction, that use of such systems will be discontinued when sewer service becomes available. This applies to ISSDS that require certification from the Department under the Realty Improvement Sewerage and Facilities Act (N.J.S.A. 57:11-23) or individual Treatment Works Approval or New Jersey Pollutant Discharge Elimination System (NJPDES) Permits (under N.J.A.C. 7:14A). It also applies to ISSDS which require only local approvals if the WMP acknowledges adequate arrangements for enforcement of the requirement (such as through a municipal or sewerage authority ordinance).

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Development in areas mapped as wetlands, flood prone areas, designated river areas, or other environmentally sensitive areas may be subject to special regulation under Federal or State statutes or rules. Interested persons should check with the Department of Environmental Protection for the latest information. Depiction of environmental features on the WMP maps is for general information purposes only, and shall not be construed to define the legal geographic jurisdiction of such statutes or rules.

Pre-existing grant conditions and requirements (from Federal or State grants or loans for sewerage facilities) which provide for restriction of sewer service to environmentally sensitive areas, are unaffected by adoption of this WMP and compliance is required. Areas that are subject to USEPA grant conditions include the Manasquan River Regional Sewerage Authority's Service Area, Farmingdale Borough, Keansburg Borough, Wall Township (southeastern section), the Marlin Estates Area of Marlboro Township, and the Township of Middletown Sewerage Authority's Service Area.

New Jersey's coastal zone extends from the New York border south to Cape May Point and then to Trenton. It encompasses the waters and waterfront of the Hudson River and related water bodies south of the Raritan Bay, the Atlantic Ocean and some inland areas from Sandy Hook to Cape May, the Delaware Bay and some inland areas, and the waterfront of the Delaware and related tributaries. The coastal zone encompasses areas in which the State has the authority to regulate land and water uses through the Coastal Area Facility Review Act (CAFRA), Waterfront Development Law and Wetlands Act of 1970. Only three treatment facilities in the Monmouth County WMP, Allentown, Roosevelt and the Western Monmouth Utilities Authority, do not have any part of their service area located in the Coastal Zone Management (CZM) area. The remaining regional treatment facilities or collection utilities are subject, in part, to CZM rules. As such, they are subject to New Jersey's Coastal Zone rules as set forth in CAFRA.

Proposed developments tying into sewer service which require coastal permits must demonstrate compliance with all applicable sections of the Coastal Zone Management rules including, but not limited to, Wetlands (N.J.A.C.7:7E-3.27), Wetlands Buffers (N.J.A.C. 7:7E-3.28), Endangered or Threatened Wildlife or Vegetation Species Habitat (N.J.A.C. 7:7E-3.38), Secondary Impacts (N.J.A.C. 7:7E-6.3), Public Facility Use Policies (N.J.A.C. 7:7E-7.6, Water Quality (N.J.A.C. 7:7E-8.4), Ground Water Use (N.J.A.C. 7:7E-8.6) and the policies under General Land Areas rules, Subchapter 5, 5A and 5B. Any areas found to be constrained by these rules will not be included in the onsite SSA.

There are no facilities in the WQM planning area or the Monmouth County WMP area located in New Jersey's Pinelands Area as defined at N.J.S.A. 13:18A-11.

Non-degradation water areas shall be maintained in their natural state (set aside for posterity) and are subject to restrictions including, but not limited to, the following: 1) DEP will not approve any pollutant discharges to an FW1 stream, with the exception of upgrades to or continued operation of existing facilities serving existing development, and 2) DEP will not approve any pollutant discharge to ground water nor approve any human activity which results in the degradation of natural water quality except for the upgrade or continued operation of existing facilities serving existing development. For additional information please see the Surface Water Quality Standards at N.J.A.C. 7:9B and/or the Ground Water Quality Standards at N.J.A.C. 7:9-6.

Franchise Area Boundaries

N.J.A.C. 7:15 does not define "franchise areas". Franchise Area Boundaries are mapped according to the agreements made between a municipality and a sewerage utilities authority. In the areas agreed upon, only that sewerage authority may provide sewer service. At certain times, agreements are made between a municipality and two sewerage authorities whereby a part of the franchise area of one sewerage authority is serviced by the other sewerage authority. These types of agreements may occur, for example, due to a lack of available installed sanitary sewer facilities in the area. They can be temporary in nature, and once the

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primary sewerage authority establishes or installs service lines which will then allow for a connection to the effected service area, the agreement with the secondary sewerage authority can be terminated.

IV. ENVIRONMENTAL ASSESSMENTS AND ANALYSES

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Summary Of Environmental Assessments And Analysis

This WMP consists of a compilation of previously adopted and draft regional and municipal WMPs. Existing and future sewer service areas were reviewed with respect to NJDEP's environmental constraints.

Monmouth County Buildout Analysis

In 1998, the Environmental Planning Section of the Monmouth County Planning Board undertook a study of zoning trends in the county that led to the development of the Monmouth County Composite Zoning Study 2000. Upon completion, a build-out model was developed to project population, employment, sewage flows, and impervious cover. Appendix A contains a White Paper that explains in detail how the model works and what factors were used. In 2009, under a grant from NJDEP, the County began an updated build-out analysis based on the new NJDEP model. Projections were submitted to all 53 municipalities for their review and comment. Once final refinements are complete, this analysis will be provided to NJDEP.

Nonpoint Source Pollutant Loading Analysis

Nonpoint source (NPS) pollution results from potential contaminants carried into storm drains and discharged to surface waters. Nonpoint source pollutants generally include items such as fertilizers, litter or other materials that directly or indirectly enter the storm sewer system. On February 2, 2004, the New Jersey Department of Environmental Protection adopted new stormwater rules to protect and restore water resource health in New Jersey through the management of stormwater and minimization of NPS pollution. The new rule requires all municipalities to adopt a municipal stormwater management plan (MSWMP) and controlling stormwater ordinance(s). The Monmouth County Board of Chosen Freeholders designated the Monmouth County Planning Board as the County Review Agency for all MSWMPs in Monmouth County.

To assist with the review of MSWMPs and ordinances the Planning Board created an advisory committee, the Stormwater Technical Advisory Committee (STAC). In addition to the Director, Assistant Director and Environmental Section Supervisor, the STAC has representatives from Health, Engineering and Mosquito Extermination as well as the New Jersey Builders Association, Freehold Soil Conservation District, and the Monmouth County Environmental Council. Environmental Planning Section staff provides administrative support to the STAC. All 53 Monmouth County municipalities have an approved MSWMP and ordinance (see Appendix B).

The New Jersey Surface Water Quality Standards (N.J.A.C. 7:9B-1 et seq.) classified and assigned all waters of the State with a classification and antidegradation designation. There are three levels of antidegradation designations: Outstanding National Resource Waters (ONRW), Category One waters (C-1), and Category Two (C-2) waters. The New Jersey Surface Water Quality Standards require a 300-foot buffer, known as a Special Water Resource Protection Area (SWRPA), along all C-1 waters and their upstream tributaries located within the same HUC-14, and along all ONRW. The SWRPA is established to maintain and restore water quality, and consists of existing vegetation or vegetation allowed to follow natural succession so as to maintain and/or create an unbroken, undisturbed vegetated buffer along C-1 waters and upstream tributaries, and along ONRW.

Point Source Pollutant Loading Analysis

A letter dated April 12, 2010 from Lawrence J. Baier, Director of the Division of Watershed Management, NJDEP, waived the requirement for Monmouth County to provide a more current countywide buildout analysis based on zoning or application of the nitrate dilution model for septic areas as part of the current

WMP application. A new buildout and nitrate dilution analyses will be performed and submitted for NJDEP review and approval subsequent to the adoption of the County WMP. Therefore, any proposed subdivision resulting in six or more dwelling units or any development with a wastewater design flow in excess of 2,000 gallons per day to be served by subsurface sewage disposal systems within Monmouth County will be considered inconsistent with the WMP. A WMP amendment shall be required and the project must comply with the requirements outlined in N.J.A.C. 7:15-5.25(h)2 for conformance with the nitrate planning standard of two mg/L. If the County performs nitrate dilution modeling in septic areas at a later date and the affected municipalities adjust their zoning, as necessary, this requirement will no longer be necessary.

Riparian Corridor Analysis

The objective to be served by this analysis is to ensure no loss of value due to potential short term or long term disturbance of these corridors. Efforts to avoid all negative impacts should be attempted first. Where total avoidance is not feasible, measures to effectively minimize the negative impacts must be undertaken. The objective of no loss of value can be achieved by ensuring that there is no disturbance within these corridors. Where there is proposed stream encroachment within the stream corridor, it must be demonstrated that the functions of the existing corridor will not be affected by the development. If there is an inherent impairment to the corridor, it must be demonstrated that every effort is being made to minimize or mitigate the impacts. These functions include but are not limited to filtering of storm water runoff, nutrient uptake, groundwater storage and recharge, forest canopy, vegetative litter, wildlife habitat, bank stabilization, and flood protection.

A municipal stormwater management plan may include a stream corridor protection plan. A Stream Corridor Protection Plan provides goals and objectives for the restoration, conservation, disturbance, and management of areas adjacent to municipally designated surface waters and any State-required stream setback, wetland transition area, and riparian buffer. The plan provides information on mitigation/stream bank restoration plans and techniques, open space preservation, and conservation easements. NJDEP, in their review of the WMP, has requested that sewer service be removed from stream corridors.

As per NJDEP requirements, Monmouth County Division of Planning Staff requested municipal Riparian Corridor Protection ordinances be adopted to ensure that stream corridors will not be compromised through changes in land use. In general, a 300 foot buffer is required for Category 1 (C-1) waterways, a 150 foot buffer for trout production and trout maintenance waterways, and 50 feet for all other FW2 non trout waterways. Appendix C provides the status of municipal Riparian Corridor Protection ordinances.

Threatened And Endangered Species Analysis

In 1994, the New Jersey Division of Fish and Wildlife's Endangered and Non-game Species Program (ENSP) began the Landscape Project with a mission "to protect New Jersey's biological diversity by maintaining and enhancing imperiled wildlife populations within healthy and functioning ecosystems."

The Landscape Project divided the State into large areas labeled "landscape regions" based upon their ecological characteristics and similarities. The Project utilized a database that combined imperiled and priority species location information with the NJDEP 1995/97 land use cover dataset. The data used in this document is referred to as Version 2.0, which was released by NJDEP in 2004.

The Department's Landscape Maps generally depict "patches" of contiguous habitat types (forest, grassland, forested wetland, emergent wetland and beach/dune) and value the patches as habitat for endangered, threatened and priority wildlife species based upon their intersection with location data for any such species. Mapped habitat patches are classified based upon the status of the species present as follows:

- Rank 5 is assigned to patches containing one or more occurrence of at least one wildlife species listed as endangered or threatened on the federal list of endangered and threatened species.

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- Rank 4 is assigned to patches with one or more occurrence of at least one State endangered species.
- Rank 3 is assigned to patches containing one or more occurrence of at least one State threatened species.
- Rank 2 is assigned to patches containing one or more occurrence of at least one nonlisted State priority species (wildlife species that are considered by the Division to be species of special concern as determined by a panel of experts, and species of regional conservation concern as provided in regional conservation plans such as Partners in Flight Bird Conservation Plans, North American Waterbird Conservation Plan, United States Shorebird Conservation Plan, etc.).
- Rank 1 is assigned to patches that meet habitat-specific suitability requirements such as minimum size criteria for endangered, threatened or priority wildlife species, but that do not intersect with any confirmed occurrences of such species.

The Landscape Project Critical Habitat Map was developed especially for land-use decision makers, i.e. municipal and county planners and local planning boards, state agencies, natural resource and land managers. According to the NJDEP Landscape Project Maps, there are portions of developable areas within the Planning Area that may be suitable habitats for threatened and endangered species, specifically Rank 3 (State threatened species), Rank 4 (State endangered species), and Rank 5 (Federal threatened and/or endangered species). NJDEP requested that land with Rankings 3 - 5 be removed from sewer service. If the land owner wanted to retain sewer service area designation, they are required to prepare a habitat suitability determination (HSD) and if the result of this study is that the property is not suitable for Rank 3-5 species, they may submit the report to NJDEP for their consideration.

Depletive/Consumptive And Allocation Water Use Analysis

NJDEP provided the County with the following Depletive/Consumptive and Allocation Water Use Analysis based on the County Planning Board's 2006 build-out analysis.

Problem/Issues

Sewage discharges to the Atlantic Ocean, along with outdoor watering of lawns and landscaping are the largest quantitative depletive and consumptive losses of freshwater from Monmouth County's natural water system.

If a new or expanded water allocation permit is required for the water supply, this analysis will be conducted as part of the Water Allocation permitting process. The applicant must then submit a separate application to the Bureau of Water Allocation.

Background

In Monmouth County, water is diverted from surface water and ground water (confined and unconfined) sources. There are four water user types (potable, agriculture, commerce/industry/mining, and non-agricultural irrigation). The potable sector accounts for a significant majority of the total diversions, with the diversions from surface water supplies being the main withdrawal source in the County. The largest provider of surface water is the New Jersey American Water Company – Coastal North System as they divert from the Swimming River (safe yield = 21.5 million gallons per day (MGD)) and Glendola (safe yield = 11.1 MGD) Reservoirs. In addition, the New Jersey American Water Company – Coastal North System has an existing contract with the New Jersey Water Supply Authority (NJWSA) to purchase 12.5 MGD of surface water from NJWSA's Manasquan Reservoir (safe yield = 30 MGD) system.

The principal confined aquifers in Critical Area 1 consist of the Potomac-Raritan-Magothy (PRM) aquifer system, the Englishtown aquifer system, the Wenonah-Mount Laurel aquifer, and the Vincentown aquifer.

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Most of the water withdrawn from the confined aquifers is from the Upper Potomac-Raritan-Magothy (PRM) with smaller portions coming from the Middle PRM and Lower PRM aquifers. In 2001, NJDEP began a re-examination of Critical Area 1. As part of the technical reassessment, the US Geological Survey updated and refined its ground-water-flow model of the New Jersey Coastal Plain (Voronin, 2003). Based on this model, the following were evaluated: the potential effects of an increase in pumping from critical aquifers for short periods to alleviate drought stress; the effect of increasing pumpage in areas that did not have ready access to the surface-water alternatives (water from the Raritan Basin via Middlesex Water Company or water from the Manasquan Reservoir via NJ Water Supply Authority); and determining if additional supplies could be extracted from the confined aquifers without contravening the limiting thresholds that were the basis for the initial Critical Area declaration. The model results revealed that there may only be a very small amount (less than 1 MGD) available only at optimal well locations within Critical Area 1 by users who do not have access to the regional surface-water alternative. Also, additional water needed to meet seasonal water-supply needs could potentially be obtained by exploring the redistribution of annual pumping schemes and use of aquifer storage and retrieval methods.

Demand Analysis Using Population and Build-out Projections

Table 1 lists the municipalities located in Monmouth County, along with their projected population growth and corresponding water demand. The water supply analysis was based on the WMP build out projections. Based upon this data and NJDEP's current Surplus/Deficit table information, it was estimated how much of each purveyor's existing water allocation remained. The identified surplus or deficit status was generated from each water system's most limiting administrative (monthly or annual water allocation permit limit) or physical (firm capacity) factor. In order to determine future demand based on build-out projections, the Division of Water Supply used the estimated Metropolitan Planning Organization (MPO) population projection for 2005 as the baseline. The MPO projection utilized data from the North Jersey Transportation Planning Authority, South Jersey Transportation Planning Organization, and the Delaware Valley Regional Planning Commission. *For further purveyor information regarding firm capacity, water allocation permit limits and associated remaining available water; please see the Water Supply Surplus/Deficit Table at <http://www.nj.gov/dep/watersupply/pws.htm>.*

Table 1 - Monmouth County Buildout Water Supply Needs ***

Municipality	Population Growth between 2005 and WMP SSA Buildout	% Served by Purveyor	# of Additional People Served by Purveyor per Mun.	Additional PWS Water Demand between 2005 and Buildout per Mun. (MGD)	Purveyor Name	Source	Firm Capacity (MGD)	Monthly Deficit Surplus Limit (MGD)	Annual Deficit Surplus Limit (MGD)	Most Limiting Factor (MGD)	Remaining Available Water of Purveyor at Town Buildout (MGD)
Aberdeen Township (1)	2790	0.54	1507	0.151	Aberdeen Township Water Department	C	3.000	0.374	0.493	0.374	0.223
Aberdeen Township (2)	2790	0.42	1172	0.117	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.433
Aberdeen Township (3)	2790	0.04	112	0.011	Matawan Borough Water Department	C	2.400	1.257	0.046	0.046	0.035
Allenhurst Borough	-10	1.00	-10	-0.001	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.551
Allentown Borough	290	1.00	290	0.029	Allentown Water Department	C	0.360	0.047	0.096	0.047	0.018
Asbury Park City	-770	1.00	-770	-0.077	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.627
Atlantic Highlands Borough	-560	1.00	-560	-0.056	Atlantic Highlands Water Department	C	2.880	0.200	0.072	0.072	0.128
Avon-by-the-Sea Borough	10	1.00	10	0.001	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.549
Bradley Beach Borough	10	1.00	10	0.001	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.549
Brielle Borough	290	1.00	290	0.029	Brielle Water Department	C	Information under review by BWSWP				
Deal Borough	10	1.00	10	0.001	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.549
Eatontown Borough (1)	550	0.42	231	0.023	Fort Monmouth Main Base	C	Assume future growth demand to be served by NJAWC				
Eatontown Borough (2)	550	1.00	550	0.055	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.495
Englishtown Borough	230	1.00	230	0.023	Englishtown Water Department	C	0.338	0.017	0.059	0.017	-0.006
Fair Haven Borough	60	1.00	60	0.006	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.544
Farmingdale Borough	0	1.00	0	0.000	Farmingdale Borough	C	0.432	0.081	-0.022	-0.022	-0.022
Freehold Borough	130	1.00	130	0.013	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.537
Freehold Township (1)	1290	0.54	697	0.070	Freehold Township Water Department	C	9.840	2.154	1.065	1.065	0.995
Freehold Township (2)	1290	0.46	593	0.059	UW Co. - Matchaponix System	C	4.000	1.868	2.262	1.868	1.809
Hazlet Township	3840	1.00	3840	0.384	Shorelands Water Company	C	9.480	0.184	0.222	0.184	-0.200
Highlands Borough	630	1.00	630	0.063	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.487
Holmdel Township (1)	2450	0.72	1764	0.176	Shorelands Water Company	C	9.480	0.184	0.222	0.184	0.008
Holmdel Township (2)	2450	0.28	686	0.069	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.481
Howell Township	-2370	1.00	-2370	-0.237	Parkway Water Company	U	1.923	0.980	0.571	0.571	0.808
Interlaken Borough	-10	1.00	-10	-0.001	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.551
Keansburg Borough	10	1.00	10	0.001	Keansburg Water and Sewer Department	C	2.712	0.731	0.059	0.059	0.058
Keyport Borough	0	1.00	0	0.000	Keyport Water Department	C	3.144	0.272	0.200	0.2	0.200
Little Silver Borough	420	1.00	420	0.042	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.508
Loch Arbour Village	0	1.00	0	0.000	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.550
Long Branch City	-970	1.00	-970	-0.097	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.647
Manalapan Township (1)	6100	0.74	4514	0.451	Gordons Corner	C	9.128	1.890	0.017	0.017	-0.434
Manalapan Township (2)	6100	0.22	1342	0.134	Manalapan Township Water Department	C	0.576	0.164	0.107	0.107	-0.027
Manalapan Township (3)	6100	0.04	244	0.024	UW Company - Matchaponix System	C	4.000	1.868	2.262	1.868	1.844

Manasquan Borough	870	1.00	870	0.087	Manasquan Water Department	C/U	1.728	0.390	0.068	0.068	-0.019
Marlboro Township	4900	1.00	4900	0.490	Marlboro Township MUA	C	10.956	2.426	1.320	1.32	0.830
Matawan Borough	1380	1.00	1380	0.138	Matawan Borough Water Department	C	2.400	1.257	0.046	0.046	-0.092
Middletown Township	9180	1.00	9180	0.918	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	1.632
Monmouth Beach Borough	110	1.00	110	0.011	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.539
Neptune Township	2880	1.00	2880	0.288	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.262
Neptune City Borough	340	1.00	340	0.034	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.516
Ocean Township	1260	1.00	1260	0.126	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.424
Oceanport Borough	270	1.00	270	0.027	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.523
Red Bank Borough (1)	620	0.78	484	0.048	Red Bank Water Department	C	2.880	0.630	0.289	0.289	0.241
Red Bank Borough (2)	620	0.22	136	0.014	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.536
Roosevelt Borough	-250	1.00	-250	-0.025	Roosevelt Borough	C	0.220	0.024	0.037	0.024	0.049
Rumson Borough	230	1.00	230	0.023	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.527
Sea Bright Borough	380	1.00	380	0.038	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.512
Sea Girt Borough	0	1.00	0	0.000	Sea Girt Water Department	C/U	0.806	0.071	0.135	0.071	0.071
Shrewsbury Borough	100	1.00	100	0.010	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.540
Shrewsbury Township	30	1.00	30	0.003	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.547
Spring Lake Borough	-10	1.00	-10	-0.001	Springlake Borough	C	1.600	0.338	0.033	0.033	0.034
Spring Lake Heights Borough	130	1.00	130	0.013	Borough of Springlake Heights	C	1.100	0.371	0.209	0.209	0.196
Tinton Falls Borough	7220	1.00	7220	0.722	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	1.828
Union Beach Borough	290	1.00	290	0.029	NJAW - Union Beach	C	Information under review by BWSWP				
Wall Township	4910	1.00	4910	0.491	Wall Township	S/C	6.130	1.137	0.191	0.191	-0.300
West Long Branch Borough	210	1.00	210	0.021	NJ American - Monmouth	C/S	77.502	2.550	3.687	2.55	2.529
Colts Neck Township	0	N/A	N/A	N/A	N/A - residential wells/septics	N/A	N/A	N/A	N/A	N/A	N/A
Millstone Township	0	N/A	N/A	N/A	N/A - residential wells/septics	N/A	N/A	N/A	N/A	N/A	N/A
South Belmar Borough*	0	N/A	N/A	N/A	N/A - residential wells/septics	N/A	N/A	N/A	N/A	N/A	N/A
Upper Freehold Township	0	N/A	N/A	N/A	N/A - residential wells/septics	N/A	N/A	N/A	N/A	N/A	N/A

Interconnections

Interconnections with MIDDLESEX

MIDDLESEX to MARLBORO

MIDDLESEX to OLD BRIDGE

MARLBORO Interconnections

MARLBORO to NJAWC-Monmouth

MANASQUAN Interconnections

MANASQUAN to NJAWC-Monmouth

Towns with losing population and decreasing water demand

Residential well/septics

*** This evaluation is a support tool for watershed stakeholders in order to identify 'potential water supply problem areas' in Monmouth County. This support tool should not be used as the sole basis of determining whether there is...or is not...adequate supply to meet projected demands. In addition, this support tool is not to be used in lieu of any future permitting requests associated with this WMP...(i.e. the approval or denial of additional water supplies).

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Projected Build-out Demand Results

Based on the analysis conducted in Table 1, it appears that the following purveyors in Table 2 may not be able to meet build-out demand based upon their existing water allocation permit:

Table 2 – Existing allocation permit may not be able to meet projected build-out demand

Purveyor	Deficit (MGD)
Englishtown Water Department	0.006
Manasquan Water Department	0.019
Farmingdale Borough	0.022
Manalapan Township Water Department	0.027
Matawan Borough Water Department	0.103
Wall Township	0.300
Shorelands Water Company	0.376
Gordon’s Corner WC	0.434

All of the purveyors listed in Table 2 have existing confined wells as part of their water allocation permits. As mentioned earlier, there is essentially no additional available supply remaining in the confined aquifers. Therefore, these purveyors would have to evaluate options such as reducing demand (implementing water conservation), beneficial reuse or investigate using unconfined ground water sources and/or surface water supplies in order to meet projected demands.

Using Unconfined Sources Analysis and Results

Since there wouldn’t be any additional water allocation from the confined aquifers in Critical Area 1, NJDEP’s Division of Water Supply evaluated what would happen if the purveyors listed in Table 2 looked into using the unconfined ground water system as an alternate source in order to meet projected water demands that were not able to be supplied from their existing, confined water allocation permits. Those results are listed in below in Table 3.

Table 3 – Water Availability for Depletive/Consumptive (D/C) demands in the associated HUC11(s) of that purveyor’s service area if exploring use of unconfined sources

Purveyor	Projected Deficit (MGD)	Associated HUC11(s) of Purveyor’s Service Area	Water Available for additional D/C demand in HUC11*** (if necessary)
Englishtown WD	0.006	Matchaponix Brook	NO
Manasquan WD	0.019	Manasquan River	YES
Farmingdale Borough	0.022	Manasquan River	YES
Manalapan Township WD	0.027	Matchaponix Brook	NO
Matawan Borough WD	0.103	Raritan/Sandy Hook Bay Tributaries	NO
Wall Township	0.300	Whale Pond Brook/Shark River/Wreck Pond Brook	YES
Shorelands WC	0.376	Raritan/Sandy Hook Bay Tributaries	NO
Gordon’s Corner WC	0.434	Raritan/Sandy Hook Bay Tributaries	NO

Note: *** Potential availability of water for additional depletive/consumptive losses is not to be used in lieu of any future permitting requests associated with this WMP (i.e. the approval or denial of additional water supplies as site specific and resource specific technical evaluations are still applicable).

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Using Existing Interconnections to Obtain Available Water Supply

As mentioned earlier, certain water companies may not be able to meet build-out demand based upon their existing water allocation permit according to our planning evaluation and analysis. Also, no additional water may be available from existing confined ground water sources. However, there are additional surface water supplies available through existing interconnections: D&R Canal water from the Raritan River Basin (via Middlesex Water Company) or Manasquan Reservoir water (contract with New Jersey Water Supply Authority).

Reclaimed Water for Beneficial Reuse and Golf Courses Analysis and Results

Reclaimed Water for Beneficial Reuse (RWBR) would help alleviate some of the stresses placed on water supplies, particularly during times of below-average precipitation and corresponding high seasonal water use that contribute to reduced ground water levels and stream flows and periodic water shortages in the region. There are eight (8) wastewater treatment facilities – Bayshore Regional Sewerage Authority, Township of Middletown Sewerage Authority, Two Rivers Water Reclamation Authority, Long Branch Sewage Authority, Township of Ocean Sewerage Authority, Asbury Park Water Quality Control Facility, Neptune Township Sewage Authority and the South Monmouth Regional Sewage Authority – in Monmouth County which discharge treated effluent to the Atlantic Ocean. Based upon the 2002 reported discharge data from the WMP submittal, these 8 treatment facilities discharged 44.63 MGD to the Atlantic Ocean and are permitted up to 72.7 MGD. At the same time, there are 33 golf courses located within Monmouth County whose water use for turf irrigation constitutes a consumptive water loss. Of those 33 golf courses, 23 are located in existing sewer service and 15 of the 23 golf courses are located within the sewer service areas of ocean dischargers (Table 4). In addition, 2 golf courses are located within a 1-mile radius of a treatment facility and one of them is using a public water supply source for irrigation (Shark River Golf Course). These golf courses may have the potential to utilize alternative sources of water (of relatively lower quality than is currently used) for irrigation, which is consistent with the Department’s Water Allocation Rules (N.J.A.C. 7:19-2.2(g)) requiring that a diversion for non-potable purposes be of the lowest water quality for the intended use. Similarly, the use of RWBR as the principal water source for such irrigation would help reduce a substantial portion of the depletive/consumptive losses in Monmouth County.

Table 4 - Golf Courses Located in SSA of Monmouth County Ocean Discharger

GOLF COURSE	WASTEWATER FACILITY NAME	GPM	MGM	MGY
Colonial Terrace GC	Ocean Township SA STP	0.00	3.00	37.20
Deal Golf & CC		1250.00	10.00	36.00
Hollywood		1000.00	6.00	25.00
Bel-Aire GC	South Monmouth Regional SA STP	0.00	3.00	37.20
Fairway Mews GC ***		325.00	4.00	17.00
Manasquan River GC		0.00	9.00	33.00
Spring Lake GC		700.00	8.00	20.00
Jumping Brook CC	Neptune Township SA STP	900.00	7.00	24.22
Twin Brook GC		0.00	3.00	37.20
Shark River GC***		Receives water from NJAW		
Bamm Hollow CC	Township of Middletown SA	3090.00	16.00	79.00
Beacon Hill CC		0.00	3.00	37.20
Old Orchard CC	Two Rivers Water Reclamation Authority STP	0.00	3.00	37.20
Rumson GC		1450.00	7.00	19.90
Sun Eagles Golf		0.00	0.00	0.00

*** Indicates golf course is located within 1 mile of Sewage Treatment Plant

Management Options to be evaluated and/or implemented

Institutional

- Implement mandatory seasonal water use limitations to reduce consumptive water losses associated with lawn and landscape watering through ordinances.
- Utilize Reclaimed Water for Beneficial Reuse for all proposed non-potable water uses within the sewer service areas of the Bayshore Regional Sewerage Authority, Township of Middletown Sewerage Authority, Two Rivers Water Reclamation Authority, Long Branch Sewage Authority, Township of Ocean Sewerage Authority, Asbury Park Water Quality Control Facility, Neptune Township Sewage Authority and the South Monmouth Regional Sewage Authorities in order to comply with N.J.A.C. 7:19-2.2(g).
- Allow no additional depletive/consumptive uses above any reservoir, pump station or surface water intake without a comparable reduction in safe yield.
- Explore the redistribution of annual pumping schemes and use of aquifer storage and retrieval methods.

Physical

- Evaluate use of surface-water alternatives
 - Water from the Raritan Basin via Middlesex Water Company's D&R Canal diversion
 - Water from the Manasquan Reservoir via NJ Water Supply Authority.
- Initiate final stage of construction for Middlesex Water Company's South River Basin Pipeline.
- Use of unconfined sources to meet additional build-out demand.

V. BASIS FOR SERVICE AREA DELINEATION

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Discussion of Service Area Delineation

Monmouth County currently has eight Wastewater Management Planning Regions designated in its WMP planning area, seven of which include Regional Wastewater Treatment Facilities. The boundaries of sewer service areas within the WMP planning regions were determined using information provided by existing WMPs, Sewerage Authorities, and NJDEP. Areas not currently served by sewers and that are not expected to be served by sewers within the 20-year planning period, and that are served by Individual Subsurface Sewage Disposal Systems, which discharge to groundwater 2,000 gpd or less, are noted as such on the maps. Upper Freehold Township, Millstone Township and Colts Neck Township are not expected to be served by sewers due to the presence of environmentally sensitive features, and are also shown as ISSDS areas.

Sewer service areas have been determined by proximity to existing service, current development patterns, and proposed development densities consistent with current municipal zoning maps and ordinances. In addition, sewer service areas, either existing or proposed, have been checked for consistency with the State Development and Redevelopment Plan (SDRP), CZM statutes and rules under CAFRA, and the Monmouth County Growth Management Guide.

A decade ago, the Monmouth County Planning Board began preparing the County's Draft Wastewater Management Plan through an inclusive process of discussion and negotiation with the involved municipalities and sewerage authorities. The first draft plan was submitted to NJDEP in 2003, revised and resubmitted in 2004 and again in 2006. Since then, the Planning Board staff and NJDEP had numerous discussions and meetings about the County's WMP. Rules and staff changed at the state level and NJDEP required additional information and maps to update the plan. In 2008 NJDEP recommended removing certain additional areas throughout the county from sewer service, including wetlands and critical habitats, as determined by NJDEP's Landscape Project. The County Planning Board staff created maps that depicted the affected areas and provided these maps to the affected municipalities and sewerage authorities. Monmouth County then facilitated a series of new meetings between 2008 and 2010 to allow for the opportunity for those affected to discuss NJDEP's proposed changes with NJDEP representatives and County Planning Board staff. The draft WMP map was published on the Monmouth County Planning Board website at www.monmouthplanning.com on July 23, 2010 and a public meeting was held on August 24, 2010 to give all interested stakeholders one more avenue to seek information and discuss their specific concerns with NJDEP and County staff. All concerns and requests for reevaluation of sites were considered by NJDEP and responses were prepared by NJDEP. The final WMP map reflects NJDEP decisions on each case.

Facilities Tables

Section VI of this WMP contains detailed wastewater treatment facilities tables, population estimates, and wastewater flow estimates for each wastewater treatment facility. These facilities are grouped according to Planning Region, with the regional facilities listed first, than any onsite treatment facilities located within the regional franchise area that discharge more than 2,000 gpd to groundwater are listed. Regional maps are provided that show sewer service areas, wastewater treatment facilities that discharge to groundwater over 2,000 gpd with their corresponding NJPDES Permit number, non-discharge areas, and areas of discharge to groundwater 2,000 gpd or less.

VI. FACILITIES, POPULATION AND FLOW TABLES

Bayshore Planning Region

Regional Facility:

- Bayshore Regional Sewerage Authority (BRSA)

On-site Facilities within BRSA Franchise Area:

- Aberdeen Water Treatment Plant
- Holmdel Convalescent Center
- Holmdel Corporate Center
- Prudential Insurance Company
- Remington's Restaurant
- Village School

Regional Facility:

- Township of Middletown Sewerage Authority (TOMSA)

On-site Facilities within TOMSA's Franchise Area:

- Gateway National Recreation Area at Sandy Hook

Regional Conveyance Utility:

- Monmouth County Bayshore Outfall Authority (MCBOA)
- Atlantic Highlands-Highlands Regional Sewerage Authority (AHHRSA)

Bayshore Regional Sewerage Authority (BRSA)

The Bayshore Regional Sewage Authority Treatment Plant, located in Union Beach, is permitted to treat 16.0 million gallons of sewage per day (MGD). The facility serves six member municipalities, Aberdeen, Hazlet, Holmdel, Keansburg, Keyport, Matawan and Union Beach, and one customer municipality, a portion of northern Marlboro Township that is situated within the Western Monmouth Utilities Authority (WMUA) franchise area, but is not served by WMUA. The plant sends its treated effluent to the Bayshore Regional Outfall Authority which in turn discharges to the Atlantic Ocean.

The northern portion of Marlboro Township, known as the Morganville section of the Township, is served by the BRSA treatment plant via a 1976 service agreement with WMUA, as updated in 1996 to treat waste generated within the WMUA franchise area. The sewerage infrastructure in this area is owned by the WMUA but a connection to the WMUA treatment facility is not currently in place.

BRSA connections to the Keansburg Borough collection system are subject to USEPA grant conditions under project number C-34-583-01. These grant conditions prohibit sewer hookups from any development located within the 100 year floodplain as defined by the Department of Housing and Urban Development.

BAYSHORE WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0024708
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	Bayshore Regional Sewerage Authority
Operator of facility	Bayshore Regional Sewerage Authority
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Borough of Union Beach 100 Oak Street Block 251 Lot 3
Location of discharge Longitude Latitude	73 degrees, 57 minutes, 39 seconds West 40 degrees, 23 minutes, 30 seconds North
Present permitted flow	16.0 MGD
Present design capacity	16.0 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Bayshore Regional Sewerage Authority	
Present (2002)	Future (2022)
84,753	96,929

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Bayshore Regional Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	8.05	10.55

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Bayshore Regional Sewerage Authority (BRSA) Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Aberdeen	17,212	756	16,456	2,958	19,414	4,823	21,278
Hazlet	21,347	310	21,037	1,673	22,710	3,971	25,008
Holmdel	9,674	1,885	7,789	5,770	13,559	11,207	18,995
Keansburg	10,563	36	10,527	94	10,621	94	10,621
Keyport	6,620	57	6,563	111	6,675	111	6,675
Marlboro	3,796	1,583	2,213	5,178	7,392	5,224	7,437
Matawan Union	7,991	185	7,806	877	8,683	1,668	9,474
Beach	7,550	74	7,476	402	7,877	484	7,959
Total	84,753	4,886	79,867	17,063	96,929	27,581	107,448

BRSA
 Population Served and
 to be served

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
BRSA Union Beach WTP									
Aberdeen	Residential		0.996471788		0.32622	1.322691788			
	Commercial		0.134331909		0.0737562	0.208088109			
	Industrial		0.097223315		0.0039124	0.101135715			
	Infiltration/Inflow				0.040389	0.040389			
Total	Reported	1.228027	1.228027012	1.371762	0.4442776	1.672304612			
Hazlet	Residential		1.554460676		0.1701	1.724560676			
	Commercial		0.254991977		0.052394	0.307385977			
	Industrial		0.038950342		0.0094931	0.048443442			
	Infiltration/Inflow				0.0231987	0.0231987			
Total	Reported	1.848403	1.848402995	2.195241	0.2551858	2.103588795			
Holmdel	Residential		0.683482585		0.53471995	1.21820254			
	Commercial		0.074832004		0.15682215	0.231654154			
	Industrial		0.034926411		0.0057005	0.040626911			
	Infiltration/Inflow				0.0697246	0.0697246			
Total	Reported	0.793241	0.793241	0.882304	0.76696720	1.56020820			
Keansburg	Residential		0.830077622		0.01028485	0.840362472			
	Commercial		0.095350568		0.00068485	0.096035418			
	Industrial		0.01106781		0.0001283	0.01119611			
	Infiltration/Inflow				0.0011098	0.0011098			
Total	Reported	0.936496	0.936496	0.824323	0.0122078	0.9487038			
Keyport	Residential		0.572502677		0.0144	0.586902677			
	Commercial		0.194080974		0.0139791	0.208060074			
	Industrial		0.063624348		0.0000718	0.063696148			
	Infiltration/Inflow				0.0028451	0.0028451			
Total	Reported	0.830208	0.830208	0.817915	0.031296	0.861504			
Matawan	Residential		0.894751402		0.10437	0.999121402			
	Commercial		0.12675761		0.0082501	0.13500771			
	Industrial		0.045558988		0.0000257	0.045584688			
	Infiltration/Inflow				0.01126458	0.01126458			
Total	Reported	1.067068	1.067068	0.915732	0.12391038	1.19097838			

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
Marlboro (WMUA)	Residential		0.11132799		0.4900688	0.60139679			
	Commercial		0.021350832		0.0314147	0.052765532			
	Industrial		0.000359177		0.0008526	0.001211777			
	Infiltration/Inflow				0.0522336	0.0522336			
	Total Reported		0.133038	0.133038	0.236616	0.574570	0.707608		
Union Beach	Residential		1.323536955		0.0358294	1.359366355			
	Commercial		0.0968368		0.0050494	0.1018862			
	Industrial		0.247963245		0.0009234	0.248886645			
	Infiltration/Inflow				0.00418022	0.00418022			
	Total Reported		1.668337	1.668337	0.558685	0.04598242	1.71431942		
BRSA Flow									
BRSA Flow	Residential		6.966611697		1.68599300	8.65260470	8.65260470		
	Commercial		0.998532675		0.3423505	1.340883175	1.340883175		
	Industrial		0.539673636		0.0211078	0.560781436	0.560781436		
	Infiltration/Inflow					0			
BRSA Total Flow Reported		8.504818	8.504818007	8.055		10.55	10.55	10.76921444	13.84935821

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Aberdeen Water Treatment Plant

The Aberdeen Water Treatment Plant treats drinking water for Aberdeen Utility Authority customers. The facility discharges untreated wastewater that has been used in the treatment plant’s filter backwash and sedimentation activities. The facility is located within the BRSA service area. The wastewater is discharged to Wilkson (Long Neck) Creek which flows to Whale Creek and eventually to Raritan Bay.

ABERDEEN WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0034142
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Wilkson’s (Long Neck) Creek
Classification of receiving water ²	FW2-NT9C2
Owner of facility	Aberdeen Township Utility Authority
Operator of facility	NJ American Water
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Aberdeen Township 40 Imbrook Lane 07747 Block 164 Lots 3, 4
Location of facility Longitude Latitude	74 degrees, 12 minutes, 37.4 seconds North 40 degrees, 23 minutes, 58.6 seconds West
Present permitted flow	0.179 MGD
Present design capacity	Information not available

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Holmdel Convalescent Center

The Holmdel Convalescent Center facility treats wastewater generated by a managed care center located on Route 34 in Holmdel Township. The on-site wastewater treatment plant treats wastewater to a secondary level and discharges the treated wastewater to Willow Brook. Willow Brook is a tributary to the Swimming River Reservoir, a major surface supply reservoir for drinking water. The Reservoir is located in the Navesink River watershed.

HOLMDEL CONVALESCENT CENTER WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0027529
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Willow Brook
Classification of receiving water ²	FW2-NT(C1)
Owner of facility	Holmdel Convalescent Center
Operator of facility	G. Cuchurdal
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Holmdel Township State Highway 34
Location of facility Longitude Latitude	74 degrees, 11 minutes, 48 seconds West 40 degrees, 21 minutes, 17 seconds North
Present permitted flow	0.025 MGD
Present design capacity	0.025 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Holmdel Convalescent Center	
Present (2002)	Future (2022)
126 patients	126 patients

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Holmdel Convalescent Center		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0.0085	0.0085
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.0085	0.0085

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Holmdel Corporate Center

The Holmdel Corporate Center will be served by an on-site septic system. This facility is located on Holmdel Road adjacent to the Prudential Insurance Company in Holmdel Township.

HOLMDEL CORPORATE CENTER WASTEWATER FACILITIES

Existing or proposed facility	Proposed
NJPDES ¹ Permit Number	NJ 0068993
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Navesink Formation
Classification of receiving water ²	GW-II A
Owner of facility	Holmdel Corporate Center
Operator of facility	Holmdel Corporate center
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Holmdel Township Holmdel Road Block 13 Lot 14
Location of facility Longitude Latitude	
Present permitted flow	0.002 MGD
Present design capacity	0.002 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Holmdel Corporate Center	
Present (2002)	Future (2022)
0	164,660 square feet

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Holmdel Corporate Center		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0	0.002
Industrial	0	0
Infiltration/Inflow	0	0
Total	0	0.002

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Prudential Insurance Company

The wastewater treatment plant that serves the Prudential Insurance Company office complex is located on Holmdel Road in Holmdel Township. Wastewater generated by the office complex receives secondary treatment before it is discharged to an unnamed tributary of Willow Brook and natural flow to groundwater. Willow Brook is a tributary of the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. The reservoir is located in the Navesink River watershed.

PRUDENTIAL INSURANCE COMPANY WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0035718
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW and DGW
Name of receiving water	Willow Brook
Classification of receiving water ²	FW2-NT(C-1)
Owner of facility	Prudential Property and Casualty Company
Operator of facility	Pollution Control
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Holmdel Township Holmdel Road
Location of facility Longitude Latitude	74 degrees, 11 minutes, 03 seconds West 40 degrees, 20 minutes, 52 seconds North
Present permitted flow	0.050 MGD
Present design capacity	0.050 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW and DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Prudential	
Present (2002)	Future (2022)
341,000 ft ²	341,000 ft ²

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Prudential		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.035	0.035
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.035	0.035

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Remington’s Restaurant

Remington’s Restaurant has an on-site wastewater treatment plant that serves the restaurant. The facility is located on the corner of Pleasant Valley Road and State Highway 34 in Holmdel Township. Wastewater generated by the restaurant receives secondary treatment and is then discharged to Willow Brook. However, the restaurant has been closed for several years and the treatment plant has been inactive. Willow Brook is a tributary to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. It is located in the Navesink River watershed.

REMINGTON’S RESTAURANT WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0031674
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Willow Brook
Classification of receiving water ²	FW2-NT(C-1)
Owner of facility	Remington’s Restaurant
Operator of facility	Applied Wastewater Technology
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Holmdel Township Route 34
Location of facility Longitude Latitude	74 degrees, 11 minutes, 45 seconds West 40 degrees, 20 minutes, 43 seconds North
Present permitted flow	0.028 MGD
Present design capacity	0.028 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Remington’s Restaurant	
Present (2002)	Future (2022)
0	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Remington’s Restaurant		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0	0.002
Industrial	0	0
Infiltration/Inflow	0	0.000
Total	0	0.002

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Village School

The Village School is served by an on-site wastewater treatment plant. The facility is located on the corner of Middletown Road and Newman Springs Road in Holmdel Township. Wastewater generated by the school receives secondary treatment before it is discharged to Ramanessin Brook. Ramanessin Brook is a tributary to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. The Reservoir is located in the Navesink River watershed.

VILLAGE SCHOOL WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0027031
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Ramanessin Brook
Classification of receiving water ²	FW-TP(C-1)
Owner of facility	Holmdel Township Board of Education
Operator of facility	D. Broderick
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Holmdel Township Middletown Road
Location of facility Longitude Latitude	74 degrees, 10 minutes, 15 seconds West 40 degrees, 20 minutes, 43 seconds North
Present permitted flow	0.010 MGD
Present design capacity	0.010 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Village School	
Present (2002)	Future (2022)
724 Students	724 Students
85 Faculty	85 Faculty
809 Total	809 Total

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Village School		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.001	0.001
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.001	0.001

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Township of Middletown Sewerage Authority (TOMSA)

The Township of Middletown Sewerage Authority serves the Township of Middletown, Borough of Atlantic Highlands, and Borough of Highlands. Sewer service in Middletown Township is by direct connection. Connection in Highlands and Atlantic Highlands is through the Atlantic Highlands/Highlands Regional Sewerage Authority (AHHRSA). AHHRSA oversees two pumping stations (one in each town) and several miles of force main that connects to the main that transports the sewage to TOMSA for treatment. The AHHRSA flow becomes a percentage of total flow that is treated by TOMSA. The wastewater treatment plant sends its treated effluent to the Monmouth County Bayshore Outfall Authority (MCBOA), which in turn discharges to the Atlantic Ocean.

Sewer connections to the Township of Middletown Sewerage Authority treatment facilities and collection system are subject to USEPA grant conditions under project numbers C-34-519-03 (conveyance system) and C-34-519-04 (treatment facilities). These grant conditions prohibit any large scale future development in wetlands and floodplains from hooking up to federally funded facilities.

TOMSA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0025356
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	Township of Middletown Sewerage Authority
Operator of facility	Township of Middletown Sewerage Authority
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Middletown Township (Belford) Center Avenue Blocks 296, 297, 298
Location of discharge Latitude Longitude	40 degrees, 23 minutes, 90 seconds North 73 degrees, 57 minutes, 39 seconds West
Present permitted flow	10.8 MGD
Present design capacity	10.8 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Township of Middletown Sewerage Authority	
Present (2002)	Future (2022)
72,797	80,007

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Township of Middletown Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	7.14	10.25

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Township of Middletown Sewerage Authority (TOMSA) Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Atlantic Highlands	3,914	16	3,899	84	3,982	273	4,171
Highlands	5,097	55	5,042	270	5,312	718	5,760
Middletown	63,626	1,870	61,756	8,797	70,553	15,726	77,482
Fort Hancock WTP	160	0	160	0	160	0	160
Totals	72,797	1,941	70,856	9,151	80,007	16,716	87,572

*TOMSA
Population Served and*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
TOMSA Belford WTP									
Atlantic Highlands	Residential		0.271619342		0.0105099	0.282129242			
	Commercial		0.050044438		0.0100613	0.060105738			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00205712	0.00205712			
Total	Calculated	0.321663781	0.321663781		0.0226283	0.344292101			
Highlands	Residential		0.160978371		0.03967165	0.200650021			
	Commercial		0.034872396		0.00375495	0.038627346			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00434266	0.00434266			
Total	Calculated	0.195850768	0.195850768		0.04776926	0.243620028			
Middletown	Residential		7.39461378		0.86943655	8.26405033			
	Commercial		0.612048041		0.73244195	1.344489991			
	Industrial		0.055823631		0.0009241	0.056747731			
	Infiltration/Inflow				0.16028026	0.16028026			
Total	Calculated	8.062485452	8.062485452		1.76308286	9.825568312			
TOMSA Flow	Residential		7.827211493		0.9196181	8.746829593	8.746829593		
	Commercial		0.696964876		0.7462582	1.443223076	1.443223076		
	Industrial		0.055823631		0.0009241	0.056747731	0.056747731		
	Infiltration/Inflow					0			
TOMSA Total Flow	Reported	8.58	8.58	7.14	1.6668004	10.25	10.25	10.2468004	11.2955788
Gateway Recreation Area WTP									
Flow	Residential								
	Commercial								
	Industrial								
	Infiltration/Inflow								
Total Flow	Reported							Unknown	

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Gateway National Recreation Area at Sandy Hook

The Gateway National Recreation Area at Sandy Hook maintains a wastewater treatment plant at Fort Hancock that serves an onsite United States Coast Guard facility, residential units, a number of education and public outreach offices, and National Park Service structures located within Fort Hancock. The wastewater treatment plant utilizes reed beds for sludge management. Wastewater receives secondary treatment before discharge to groundwater.

GATEWAY NATIONAL RECREATION AREA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0022314
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Vincentown Formation
Classification of receiving water ²	II-A
Owner of facility	National Park Service
Operator of facility	National Park Service
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Middletown Township, Sandy Hook Atlantic Drive, Fort Hancock
Location of facility Longitude Latitude	74 degrees, 00 minutes, 00 seconds West 40 degrees, 27 minutes, 30 seconds North
Present permitted flow	0.189 MGD
Present design capacity	0.250 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Gateway National Recreation Area at Sandy Hook	
Present (2002)	Future (2022)
160	160

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Gateway National Recreation Area at Sandy Hook		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0.042	0.042
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.042	0.042

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Bayshore Outfall Authority (MCBOA)

The Monmouth County Bayshore Outfall Authority does not own or maintain a wastewater treatment plant. MCBOA provided the capital funds to construct a regional pumping facility and an ocean outfall. MCBOA continues to function as a conveyance facility. BRSA and TOMSA first convey treated wastewater to the MCBOA pumping facility. The treated wastewater is then pumped to the Atlantic Ocean outfall by the MCBOA.

MCBOA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0024694
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	Monmouth County Bayshore Outfall Authority
Operator of facility	Monmouth County Bayshore Outfall Authority
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Middletown Township (Belford) 200 Harbor Way Block 306 Lot 170
Location of discharge Longitude Latitude	73 degrees, 57 minutes, 39 seconds West 40 degrees, 23 minutes, 90 seconds North
Present permitted flow	33 MGD
Present design capacity	16 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Bayshore Regional Sewerage Authority	
Present (2002)	Future (2022)
89,639	96,929
Township of Middletown Sewage Authority	
Present (2002)	Future (2022)
74,738	80,007

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Bayshore Regional Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	8.05	10.55

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED (CONT.)

Township of Middletown Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	7.14	10.414

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Atlantic Highlands-Highlands Regional Sewerage Authority (AHHRSA)

The AHHRSA oversees the operation and maintenance of their two pumping stations, one in each town (Atlantic Highlands and Highlands), and the several miles of force main that connects them to the main that transports the sewage to TOMSA for treatment. The treated effluent is then pumped to MCBOA to be discharged into the Atlantic Ocean.

AHHRSA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	Atlantic Highlands-Highlands Regional Sewerage Authority
Operator of facility	Atlantic Highlands-Highlands Regional Sewerage Authority
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	
Location of discharge Longitude Latitude	
Present permitted flow	1.3 MGD
Present design capacity	1.3 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Atlantic Highlands-Highlands Regional Sewerage Authority	
Present (2002)	Future (2022)

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Atlantic Highlands-Highlands Regional Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	1.3	1.3

Colts Neck Planning Region

There are no Regional Facility Franchises in this Planning Region.

On-site Facilities in this Planning Region:

- Cedar Drive School
- Colts Neck Golf Club
- Colts Neck High School
- Colts Neck Inn and Restaurant
- Colts Neck Reformed Church
- Colts Neck Shopping Center
- Colts Neck Town Plaza
- Conover Road Primary School
- Conover Road Elementary School
- Delicious Orchards
- Due Process Golf Course
- Manor at Colts Neck
- Former Meridian School
- Naval Weapons Station Earle
- Riverview Assisted Living Facility
- Rojen Commercial Center
- Shadow Isle Golf Club
- Village Inn

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Cedar Drive School

The Cedar Drive School is an elementary school served by an on-site septic system that discharges untreated wastewater to subsurface distribution and infiltration beds for treatment and disposal. The facility is located on Cedar Drive in Colts Neck Township. The property drains to an unnamed Yellow Brook tributary and then to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. It is located in the Navesink River watershed.

CEDAR DRIVE WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ G0108961
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater
Classification of receiving water ²	Information not available
Owner of facility	Colts Neck Board of Education
Operator of facility	Colts Neck Board of Education
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Colts Neck Township Cedar Drive Block 23 , Lot 25
Location of facility Longitude Latitude	
Present permitted flow	0.00525 MGD
Present design capacity	0.00525MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Cedar Drive School	
Present (2002)	Future (2022)
808	808

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Cedar Drive School		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.00525	0.00525
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.00525	0.00525

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Colts Neck Golf Club

The Colts Neck Golf Club clubhouse discharges untreated wastewater to an on-site septic system and associated drainage field for treatment and disposal. The facility is located on Flock Road in Colts Neck Township. The property drains to Yellow Brook which in turn drains to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. It is located in the Navesink River watershed.

COLTS NECK GOLF CLUB WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0137201
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Brunswick Formation
Classification of receiving water ²	II-A
Owner of facility	Colts Neck Golf Club
Operator of facility	Colts Neck Golf Club
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Colts Neck Township Flock Road Block 17, Lot 10.16
Location of facility Longitude Latitude	
Present permitted flow	0.0045 MGD
Present design capacity	Information not available

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Colts Neck Golf Club	
Present (2002)	Future (2022)
300	300

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Colts Neck Golf Club		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.0045	0.0045
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.0045	0.0045

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Colts Neck High School

Colts Neck High School is located at the corner of Five Points Road and County Route 537 in Colts Neck Township. The school utilizes an on-site wastewater treatment plant that recycles treated wastewater to restroom facilities, which is then re-treated and discharged to subsurface disposal beds. The facility is located on property that drains to Yellow Brook, a tributary to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. It is located in the Navesink River watershed.

COLTS NECK HIGH SCHOOL WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0109355
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Red Bank Formation
Classification of receiving water ²	II-A
Owner of facility	Freehold Township Board of Education
Operator of facility	Freehold Township Board of Education
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Colts Neck Township County Route 537 Block 43 Lot 1 and a part of lot 2
Location of facility Longitude Latitude	74 degrees, 13 minutes, 30 seconds West 40 degrees, 17 minutes, 27 seconds North
Present permitted flow	0.01421 MGD
Present design capacity	0.0325 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Colts Neck High School	
Present (2002)	Future (2022)
1,300 students	1,300 students
90 staff	90 staff
1,390 total	1,390 total

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Colts Neck High School		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0.006 to disposal beds	0.006 to disposal beds
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.006	0.006

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Colts Neck Inn and Restaurant

Colts Neck Inn and Restaurant is located at the corner of State Highway 34 and County Route 537. Wastewater generated by the complex receives secondary treatment before it is discharged to Mine Brook. Mine Brook is a tributary of Yellow Brook, which in turn discharges to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. The Reservoir is located in the Navesink River watershed.

COLTS NECK INN WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0031771
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Mine Brook
Classification of receiving water ²	FW2-NT(C-2)
Owner of facility	Colts Neck Inn
Operator of facility	Colts Neck Inn
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Colts Neck Township State Highway 34 and County Route 537
Location of facility A. Longitude B. Latitude	74 degrees, 10 minutes, 50 seconds West 40 degrees, 17 minutes, 25 seconds North
Present permitted flow	0.006 MGD
Present design capacity	0.006 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Colts Neck Inn	
Present (2002)	Future (2022)
Information not available	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Colts Neck Inn		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	0.0027	0.0027

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Colts Neck Reformed Church

The Colts Neck Dutch Reformed Church is located within an area currently depicted as discharge to groundwater of 2,000 gpd or less. On June 13, 2010 the church was issued a NJPDES T-1 permit recognizing the existing facility has a sanitary discharge to groundwater in excess of 2,000 gpd.

COLTS NECK REFORMED CHURCH WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJG 0176486
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Aquifer
Classification of receiving water ²	Class II
Owner of facility	Dutch Reformed Church and Cemetery
Operator of facility	Colts Neck Reformed Church
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Colts Neck Township 72 County Route 527 West B 29.01, L13 & 14; B 29.13, L6, 7, 8 & 17
Location of facility Longitude Latitude	State Plane Coordinates: 581220, 529484
Present permitted flow	2,890 GPD
Present design capacity	2,890 GPD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Colts Neck Reformed Church	
Present (2002)	Future (2022)

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Colts Neck Reformed Church		
Source of Flow	Present (2011)	20 Year Future (2022)
Residential	2,890 gpd	2,890 gpd
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	2,890 gpd	2,890 gpd

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Colts Neck Shopping Center

The Colts Neck Shopping Center is a retail complex served by two on-site septic systems that discharge untreated wastewater to subsurface distribution and infiltration beds for treatment and disposal. The facility is located on State Highway 34 in Colts Neck Township. The property drains to Yellow Brook then to the Swimming River Reservoir.

COLTS NECK SHOPPING CENTER WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ G0085341
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Red Bank/Tinton Sands
Classification of receiving water ²	GW - II
Owner of facility	Colts Neck Shopping Center.
Operator of facility	Colts Neck Shopping Center
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Colts Neck Township 30 Route 34 Block 30, 31, 31.01 Lots (Too numerous to list)
Location of facility Longitude Latitude	74 degrees, 10 minutes, 36 seconds 40 degrees, 17 minutes, 26 seconds
Present permitted flow	0.00405 MGD
Present design capacity	0.00405 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Colts Neck Shopping Center	
Present (2002)	Future (2022)
32,400 ft ²	32,400 ft ²

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Colts Neck Shopping Center		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.00405	0.00405
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.00405	0.00405

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Colts Neck Town Plaza

The Colts Neck Town Plaza is a 36,100 square foot retail office complex with a staff of 70 people including a 48 seat restaurant served by a septic system. The facility is located on State Highway 34 in Colts Neck Township. The property drains to Yellow Brook then to the Swimming River Reservoir.

COLTS NECK TOWN PLAZA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ G0136166
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater
Classification of receiving water ²	Information not available
Owner of facility	Coltstowne Group, LLC
Operator of facility	Coltstowne Group, LLC
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Colts Neck Township 41 Route 34 South Block 48, lots 4, 41
Location of facility Longitude Latitude	Information not available
Present permitted flow	0.00668 MGD
Present design capacity	0.00668 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Colts Neck Town Plaza	
Present (2002)	Future (2022)

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Colts Neck Town Plaza		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.00668	0.00668
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.00668	0.00668

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Conover Road Primary School

Conover Road Primary School (Grades K through 2) is located on Conover Road in Colts Neck Township. It is served by an onsite discharge to groundwater treatment system. The facilities are located on property that drains to Big Brook, a tributary to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. It is located in the Navesink River watershed.

CONOVER ROAD PRIMARY SCHOOL WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ G0108979
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater
Classification of receiving water ²	Information not available
Owner of facility	Colts Neck Township Board of Education
Operator of facility	Colts Neck Township Board of Education
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Colts Neck Township 56 Conover Road Block 8 Lot 2.02
Location of facility A. Longitude B. Latitude	74 degrees, 11 minutes, 50 seconds West 40 degrees, 18 minutes, 20 seconds North
Present permitted flow	0.00343 MGD
Present design capacity	0.00975 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Conover Road Primary School	
Present (2002)	Future (2022)
Students 506	Students 506
Staff 78	Staff 78
Total 584	Total 584

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Conover Road Primary School		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0.003	0.003
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.003	0.003

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Conover Road Elementary School

Conover Road Elementary School (Grades 3 through 5) was built in 2002 and is occupied by 725 students and staff with an estimated wastewater flow of 10,875 gallons per day. It is served by an onsite discharge to groundwater treatment system. The facility is located on property that drains to Big Brook, a tributary to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. It is located in the Navesink River watershed.

CONOVER ROAD ELEMENTARY SCHOOL WASTEWATER FACILITIES TABLE

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ0137715
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Upper Cretaceous Tinton Formation
Classification of receiving water ²	Groundwater II-A
Owner of facility	Colts Neck Township Board of Education
Operator of facility	Colts Neck Township Board of Education
Co-permittee of facility	None
Location of facility D. Municipality E. Street Address F. Block and lot	Colts Neck Township 80 Conover Road Block 8 Lot 2
Location of facility C. Longitude D. Latitude	
Present permitted flow	0.0108 MGD
Present design capacity	0.0108 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Conover Road Elementary School	
Present (2002)	Future (2022)
725 students and staff	725 students and staff

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Conover Road Elementary School		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	0.0108	0.0108

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Delicious Orchards

Delicious Orchards is a retail food store and bakery served by an on-site septic system that discharges untreated wastewater to subsurface distribution and infiltration beds for treatment and disposal. The facility is located on State Highway 34 in Colts Neck Township. The property drains to Mine Brook, a tributary to Yellow Brook, which, in turn, discharges to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. The Reservoir is located in the Navesink River watershed.

DELICIOUS ORCHARDS WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ G0101222
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater
Classification of receiving water ²	Information not available
Owner of facility	Rosemont Orchards, Inc.
Operator of facility	Rosemont Orchards, Inc
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Colts Neck Township State Highway 34 Block 46 , Lot 15
Location of facility A. Longitude B. Latitude	
Present permitted flow	0.008 MGD
Present design capacity	0.008MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Delicious Orchards	
Present (2002)	Future (2022)
52,000 ft ²	52,000 ft ²

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Delicious Orchards		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.008	0.008
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.008	0.008

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Due Process Golf Course

The Due Process Golf Course clubhouse is served by an on-site septic system that discharges untreated wastewater to subsurface distribution and infiltration beds for treatment and disposal. The facility is located on County Route 537 in Colts Neck Township. The property drains to Pine Brook and then to Swimming River and the Navesink River.

DUE PROCESS GOLF COURSE WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0105759
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Hornerstown Formation
Classification of receiving water ²	II-A
Owner of facility	Robdell Associates, Inc.
Operator of facility	Robdell Associates, Inc
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Colts Neck Township County Route 537 Block 51 , Lots 1, 1.01, 2, 3, 20 and 20.01
Location of facility A. Longitude B. Latitude	
Present permitted flow	0.01925 MGD
Present design capacity	0.01925 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Due Process Golf Course	
Present (2002)	Future (2022)
550 persons per day	550 persons per day

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Due Process Golf Course		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.01925	0.01925
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.01925	0.01925

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Manor at Colts Neck

The Manor at Colts Neck will be served by an on-site septic system that discharges untreated wastewater to subsurface distribution and infiltration beds for treatment and disposal. The facility is located on Route 537 in Colts Neck. The property drains to onsite wetlands and the Yellow Brook, a tributary to the Swimming River and the Swimming River Reservoir.

MANOR AT COLTS NECK WASTEWATER FACILITIES

Existing or proposed facility	Proposed
NJPDES ¹ Permit Number	NJ 0157058
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Tinton Formation
Classification of receiving water ²	II-A
Owner of facility	Colts Neck Building Association, LLC
Operator of facility	Colts Neck Building Association, LLC
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Colts Neck Township Route 537 Block 22, Lots 11-14
Location of facility A. Longitude B. Latitude	74 degrees, 13 minutes, 00 seconds West 40 degrees, 16 minutes 37 seconds North
Present permitted flow	0.0144 MGD
Present design capacity	Information not available

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

The Manor at Colts Neck	
Present (2006)	Future (2026)
0	48 (3 bedroom) dwelling units

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

The Manor at Colts Neck		
Source of Flow	Present (2006 - MGD)	20 Year Future (2026 - MGD)
Residential	0	0.0144
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	0	0.0144

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

(Former) Meridian School

The former Meridian School will be redeveloped into a restaurant, banquet hall, day care facility, offices, and possible affordable housing units which will be served by an on-site package treatment plant that will discharge wastewater to a septic field. The facility is located on Route 537 in Colts Neck. The property drains to onsite wetlands and the Yellow Brook, a tributary to the Swimming River and the Swimming River Reservoir.

FORMER MERIDIAN SCHOOL WASTEWATER FACILITIES

Existing or proposed facility	Proposed
NJPDES ¹ Permit Number	NJ0182966
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Kirkwood Formation
Classification of receiving water ²	II-A
Owner of facility	Ray Longobardi
Operator of facility	Ray Longobardi
Co-permittee of facility	None
Location of facility D. Municipality E. Street Address F. Block and lot	Colts Neck Township 20 Route 537 East Block 48, Lots 19
Location of facility C. Longitude D. Latitude	
Present permitted flow	0.015 MGD
Present design capacity	0.003 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Former Meridian School	
Present (2006)	Future (2026)
0	Commercial development

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Former Meridian School		
Source of Flow	Present (2006 - MGD)	20 Year Future (2026 - MGD)
Residential	0	0.002
Commercial	0	0.013
Industrial	0	0
Infiltration/Inflow	0	0
Total	0	0.015

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Naval Weapons Station Earle

The Naval Weapons Station (NWS) Earle maintains a wastewater treatment plant that serves resident, office, and maintenance structures located in Colts Neck Township. Wastewater generated by the NWS receives secondary treatment before it is discharged to Hockhockson Brook. Hockhockson Brook is a tributary to Pine Brook, which, in turn, discharges to the Swimming River. The Swimming River is located in the Navesink River Watershed.

NWS EARLE WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0023540
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Hockhockson Brook
Classification of receiving water ²	FW2-NT [Pine Brook is FW-TP(C-1) stream]
Owner of facility	United States Navy
Operator of facility	United States Navy
Co-permittee of facility	None
Location of facility G. Municipality H. Street Address I. Block and lot	Colts Neck Township N.J. Route 34, 07722 Blocks 55, 56, 56.01 Lots 1 and 1 and 2-5 respective
Location of facility E. Longitude F. Latitude	74 degrees, 09 minutes, 55 seconds West 40 degrees, 16 minutes 25 seconds North
Present permitted flow	0.374 MGD
Present design capacity	0.374 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Naval Weapons Station Earle	
Present (2002)	Future (2022)
1210	1210

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Naval Weapons Station Earle		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0.123	0.123
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.123	0.123

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Riverview Assisted Living Facility

The Riverview Assisted Living Facility, created by Meridian Quality Care Inc., includes an onsite wastewater treatment plant that treats wastewater generated by the facility and discharges to groundwater through the use of distribution beds and natural flow. The facility is located on Route 34 in Colts Neck Township. Wastewater generated by the facility receives tertiary treatment before discharge to the distribution beds. The property drains to Mine Brook, a tributary to Yellow Brook, which, in turn, discharges to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. The Reservoir is located in the Navesink River watershed.

RIVERVIEW WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0133451
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Vincentown Formation
Classification of receiving water ²	II-A
Owner of facility	Assisted Living at Colts Neck, Inc.
Operator of facility	Assisted Living at Colts Neck, Inc.
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Colts Neck Township 3 Meridian Circle Block 46, Lot 17.01
Location of facility A. Longitude B. Latitude	74 degrees, 10 minutes, 30 seconds West 40 degrees, 16 minutes, 50 seconds North
Present permitted flow	0.0108 MGD
Present design capacity	0.0108 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Riverview Assisted Living Facility	
Present (2002)	Future (2022)
42 Beds	72 Beds
25 staff	25 staff
25 Part Time Staff	25 Part Time Staff

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Riverview Assisted Living Facility		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0.0108	0.0108
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.0108	0.0108

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Rojen Commercial Center

The Rojen Commercial Center is a commercial retail and office center located on the southwest corner of Route 34 and County Route 537 in Colts Neck Township. The center is served by an onsite wastewater treatment plant. Wastewater generated by the complex receives secondary treatment before it is discharged to groundwater by injection. The property drains to Mine Brook, a tributary to Yellow Brook. Yellow Brook discharges to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. The Reservoir is located in the Navesink River watershed.

ROJEN COMMERCIAL CENTER WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0109029
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Red Bank/Tinton Sands
Classification of receiving water ²	GW - II
Owner of facility	Rojen Inc.
Operator of facility	Rojen, Inc.
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Colts Neck Township State Highway 34 Block 46 Lots 13, 14
Location of facility Longitude Latitude	
Present permitted flow	0.00522 MGD
Present design capacity	0.00522 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Rojen Commercial Center	
Present (2002)	Future (2022)
Commercial, Medical, Retail: 39,321 ft ²	Commercial, Medical, Retail: 39,321 ft ²
Office: 10,975 ft ²	Office: 10,975 ft ²
Total: 50,296 ft ²	Total: 50,296 ft ²

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Rojen Commercial Center		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.00522	0.00522
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.00522	0.00522

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Shadow Isle Golf Club

The Shadow Isle Golf Club is served by an on-site septic system that discharges untreated wastewater to distribution and sub-surface infiltration beds for treatment and disposal. The facility is located off State Route 34 in South Colts Neck Township in an area of the Golf Course known as the “Yearling Patch”. The property drains to Mine Brook, a tributary to Yellow Brook, which, in turn, discharges to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. The Reservoir is located in the Navesink River watershed.

SHADOW ISLE GOLD CLUB WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0147109
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Vincentown Formation
Classification of receiving water ²	IIA
Owner of facility	Shadow Isle Golf Club
Operator of facility	Shadow Isle Golf Club
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Colts Neck Township 81 Route 34 – Suite E, Colts Neck 07722 Block 46, Lot 17.02
Location of facility A. Longitude B. Latitude	
Present permitted flow	0.018 MGD
Present design capacity	Information not available

¹New Jersey Pollutant Discharge Elimination System (NJPDES)

²See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Shadow Isle Golf Club	
Present (2002)	Future (2022)
Information not available	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Shadow Isle Golf Club		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	Information not available	Information not available

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Village Inn

The Village Inn Motel has 26 units, a coffee shop, and an apartment. There are one 3,005 gallon and one 1,500 gallon septic tank in a series. There are two disposal fields, one 4,161 square feet and one 2,625 square feet. The property drains to Mine Brook, a tributary to Yellow Brook, which, in turn, discharges to the Swimming River Reservoir. The Reservoir is a major surface water supply for drinking water. The Reservoir is located in the Navesink River watershed.

WASTEWATER FACILITIES TABLE

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJG0158631
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater
Classification of receiving water ²	
Owner of facility	Patel Bhupendra
Operator of facility	Shree Prannathji, LLC
Co-permittee of facility	
Location of facility D. Municipality E. Street Address F. Block and lot	Colts Neck Township 92 Route 34 South Block 47, lot 12
Location of facility C. Longitude D. Latitude	
Present permitted flow	0.00373 MGD
Present design capacity	Information not available

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Village Inn	
Present (2002)	Future (2022)
26 Unit Motel, 24 Seat Coffee Shop, 1 Apartment	26 Unit Motel, 24 Seat Coffee Shop, 1 Apartment

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Village Inn		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	0.00373 MGD	0.00373 MGD

Manasquan Planning Region

Regional Conveyance Utility:

- Manasquan River Regional Sewerage Authority (MRRSA)

On-site Facilities within MRRSA's Franchise Area:

- Angle In Mobile Home Park
- Edge of Town Restaurant
- Orchard Estates

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Manasquan River Regional Sewerage Authority (MRRSA)

The Manasquan River Regional Sewerage Authority does not own or operate a wastewater treatment facility but instead, provides conveyance infrastructure to transfer untreated wastewater to the Ocean County Utilities Authority (OCUA). OCUA also provides limited conveyance infrastructure within the MRRSA franchise area. Additionally, the New Jersey-American Water and Sewer Company and the Maxim Sewer Company own and operate conveyance utilities within the MRRSA franchise area. All wastewater in the MRRSA franchise area is conveyed to the OCUA Northern Ocean County Wastewater Treatment Plant where MRRSA’s wastewater is treated and discharged.

MRRSA provides regional conveyance infrastructure to portions of the Freehold Township collector system, portions of the Wall Township collector system, the Howell Township collector system and the Boroughs of Freehold and Farmingdale collector systems.

Sewer connections to the Manasquan River Regional Sewerage Authority are subject to United States Environmental Protection Agency grant conditions under project number C-34-372-03. These grant conditions prohibit sewer hookups from any future development in wetlands and floodplains. Sewer connections to the Farmingdale Borough collection system are subject to United States Environmental Protection Agency grant conditions under project number C-34-603-02. These grant conditions prohibit the discharge of wastewater into this system from any building, facility, or other manner of construction on any area mapped as wetlands on the National Wetlands Inventory Maps prepared by the U.S. Fish and Wildlife Service or within the 100 year floodplain as defined by the Department of Housing and Urban Development.

MRRSA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0028142 OCUA STP Mantoloking
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	Ocean County Utility Authority
Operator of facility	Ocean County Utility Authority
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Brick Township Mantoloking Road
Location of discharge A. Longitude B. Latitude	74 degrees, 01 minutes, 39 seconds West 40 degrees, 01 minutes, 55 seconds North
Present permitted flow	6.261 MGD from MRRSA’s sewer service area
Present design capacity	32 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Manasquan River Regional Sewerage Authority	
Present (2002)	Future (2022)
75,988	90,376

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Manasquan River Regional Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	6.26	7.77

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Manasquan River Regional Sewerage Authority (MRRSA) Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Colts Neck	444	43	401	168	569	169	569
Farmingdale	1,591	5	1,586	18	1,604	18	1,604
Freehold Borough	10,914	179	10,735	228	10,963	378	11,113
Freehold Township	24,416	3,059	21,357	7,499	28,856	7,499	28,856
Howell	37,428	2,071	35,357	11,183	46,540	14,242	49,599
Wall	1,195	313	882	962	1,844	962	1,844
Totals	75,988	5,671	70,317	20,058	90,375	23,267	93,584

*MRRSA
 Population Served and
 to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
MRRSA Flow to OCUA									
Colts Neck									
	Residential		0		0.014378	0.014378			
	Commercial		0		0	0			
	Industrial		0		0	0			
	Infiltration/Inflow		0		0	0			
Total	Reported	included with Freehold Township	0	0	0.014378	0.014378			
Farmingdale									
	Residential		0.108		0.0021	0.1101			
	Commercial		0.0255744		0	0.0255744			
	Industrial		0		0	0			
	Infiltration/Inflow		0.010368		0.0001512	0.0105192			
Total	Reported	0.144	0.1439424	0.14	0.0022512	0.1461936			
Freehold Borough									
	Residential		0.892944		0.0177616	0.9107056			
	Commercial		0.223704		0.0166175	0.2403215			
	Industrial		0.231816		0.0016124	0.2334284			
	Infiltration/Inflow		0.211536		0.0048804	0.2164164			
Total	Reported	1.56	1.56	1.5	0.04087190	1.6008719			
Freehold Township									
	Residential		1.004986		0.795498	1.80048405			
	Commercial		0.478042		0.28784865	0.76589065			
	Industrial		0.2011968		0.0737786	0.2749754			
	Infiltration/Inflow		0.3117752		0.180743	0.4925181			
Total	Reported	1.996	1.996	2.43	1.337868	3.3338682			
Howell									
	Residential		1.3238442		1.0857106	2.4095548			
	Commercial		0.3754485		0.3905667	0.7660152			
	Industrial		0		0	0			
	Infiltration/Inflow		0.1277073		0.1031918	0.2308991			
Total	Reported	1.827	1.827	2.173	1.5794691	3.4064691			
Wall									
	Residential		0.00946		0.1077	0.11716			
	Commercial		0.00143		0.066297	0.067727			
	Industrial		0.000020		0.0287335	0.028753			
	Infiltration/Inflow		0.0005		0.0088796	0.0093796			
Total	Reported	0.011	0.01141	0.018	0.2116101	0.223020043			
MRRSA Flow									
	Residential		3.3392342		2.023148	5.36238245	5.36238245		
	Commercial		1.1041989		0.76132985	1.86552875	1.86552875		
	Industrial		0.433033		0.1041245	0.537157	0.537157		
	Infiltration/Inflow		0.6618865						
MRRSA Total Flow	Reported	5.538	5.53835	6.261	7.77	7.77	8.724800843	17.17845	

*Wastewater Received and
to be Received*

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Angle In Mobile Home Park

The Angle In Mobile Home Park is a residential rental community served by a central septic system that discharges wastewater subjected to an ion exchange filter and then to subsurface distribution and infiltration beds for treatment and disposal. The facility is located on State Highway 33 in Howell Township and is in the MRRSA service area. The property drains to a tributary of the Mingamahone Brook thence to the Manasquan River.

ANGLE IN WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJG 0089630 for sanitary NJ 0061824 for ion exchange backwash
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater
Classification of receiving water ²	II-A
Owner of facility	Cindy Jordan
Operator of facility	Cindy Jordan
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Howell Township State Highway Route 33 Block 72, Lots 109.01, 109.02, 110, 111
Location of facility A. Longitude B. Latitude	74 degrees, 09 minutes, 20 seconds 40 degrees, 13 minutes, 40 seconds
Present permitted flow	0.0450 MGD sanitary – 275 gpd backwash
Present design capacity	0.0450 MGD sanitary – 275 gpd backwash

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Angle In Mobile Home Park	
Present (2002)	Future (2022)
150 units	150 units

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Angle In Mobile Home Park		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0.0375	0.0375
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.0375	0.0375

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Edge of Town Restaurant

The Edge of Town Restaurant is located on Adelpia – Farmingdale Road in Howell Township near the Farmingdale municipal boundary. The restaurant utilizes an on-site septic system that discharges untreated wastewater to subsurface treatment and disposal beds. The facility is located on property that drains to Marsh Bog Brook, a tributary of the Manasquan River.

EDGE OF TOWN RESTAURANT WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ G0134295
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater
Classification of receiving water ²	Information not available
Owner of facility	Theodore and Zenovia Vlahakis
Operator of facility	Adelpia 72 Corp.
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Howell Township 72 Adelpia Road
Location of facility Longitude Latitude	
Present permitted flow	Information not available
Present design capacity	0.0063 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Edge of Town Restaurant	
Present (2002)	Future (2022)
180 seats	180 seats

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Edge of Town Restaurant		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		0.0063
Industrial		
Infiltration/Inflow		
Total	Information not available	0.0063

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Orchard Estates

Orchard Estates is an office building located on Yellow Brook Road in Howell Township. The office building utilizes an on-site septic system that discharges untreated wastewater to subsurface treatment and disposal beds. The facility is located on property that drains to a tributary to Yellow Brook, then to the Manasquan River.

ORCHARD ESTATES WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0142115
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Kirkwood Formation
Classification of receiving water ²	II-A
Owner of facility	Orchard Estates
Operator of facility	Orchard Estates
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Howell Township Yellow Brook Road Block 177, Lot 69
Location of facility Longitude Latitude	
Present permitted flow	0.004 MGD
Present design capacity	0.004 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Orchard Estates	
Present (2002)	Future (2022)
32,010 square feet	32,010 square feet

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Orchard Estates		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.004	0.004
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.004	0.004

Northeast Planning Region

There are two Regional Facilities in this Planning Region:

- Two Rivers Water Reclamation Authority (TRWRA)
- Long Branch Sewerage Authority (LBSA)

There are no On-site Facilities in this Planning Region.

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Two Rivers Water Reclamation Authority (TRWRA)

Two Rivers Water Reclamation Authority, formerly known as the Northeast Monmouth Regional Sewerage Authority, handles all current of future wastewater generated by six member municipalities: Little Silver, Monmouth Beach, Shrewsbury, Oceanport, West Long Branch and Fair Haven and six customer municipalities: Eatontown, Red Bank, part of Tinton Falls, Rumson, Sea Bright and Shrewsbury Township. The wastewater treatment plant also serves all of Fort Monmouth, including Camp Charles Wood.

Several lots located in block 1 in Ocean Township are also served through an agreement with the Township of Ocean Sewerage Authority (TOSA).

TRWRA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0026735
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	Two Rivers Water Reclamation Authority
Operator of facility	Two Rivers Water Reclamation Authority
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Monmouth Beach One Highland Avenue Block 40, Lots 59. 57.01, 12.01
Location of discharge A. Latitude B. Longitude	40 degrees, 20 minutes 04 seconds North 73 degrees, 57 minutes, 58 seconds West
Present permitted flow	13.83 MGD
Present design capacity	14.98 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Two Rivers Water Reclamation Authority	
Present (2002)	Future (2022)
78,554	88,449

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Two Rivers Water Reclamation Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	9.34	10.60

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Two Rivers Water Reclamation Authority (TRWRA) Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	Additional 2022	2022 Estimate	Additional Build-Out	Build-Out Estimate
Eatontown	15,858	444	15,414	1,271	16,684	1,271	16,684
Fair Haven	5,981	5,305	5,928	190	6,118	190	6,118
Little Silver	6,153	127	6,026	633	6,659	633	6,659
Monmouth Beach	3,595	54	3,441	196	3,737	196	3,737
Oceanport	5,868	85	5,783	420	6,204	420	6,204
Red Bank	11,776	171	11,605	898	12,503	898	12,503
Rumson	7,137	102	7,035	370	7,405	370	7,405
Sea Bright	1,695	11	1,684	442	2,126	442	2,126
Shrewsbury	3,590	33	3,557	175	3,733	175	3,733
Shrewsbury	1,098	11	1,087	55	1,142	55	1,142
Tinton Falls	9,319	1,478	7,841	7,549	15,390	7,549	15,390
West Long Branch	6,484	66	6,418	330	6,749	330	6,749
Totals	78,554	2,634	75,920	12,529	88,449	12,529	88,449

*TRWRA
 Population Served and
 to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
TRWRA Raccoon Island WTP									
Eatontown									
	Residential		1.0303244		0.1575000	1.1878244			
	Commercial		0.1714416		0.2022102	0.3736518			
	Industrial		0.0475728		0.0428059	0.0903787			
	Infiltration/Inflow		0.248336		0.066898	0.315234			
	Member Calculated Military Flow Reported	1.496 + 0.63 Military Flow Reported							
Total			1.4976748		0.469	1.9670889			
Fair Haven									
	Residential		0.1726686		0.0192001	0.1918687			
	Commercial		0.0218544		0	0.0218544			
	Industrial		0.0021666		0	0.0021666			
	Infiltration/Inflow		0.1171848		0.00717124	0.124356037			
Total	Member Calculated	0.314	0.3138744		0.02637134	0.340245737			
Little Silver									
	Residential		0.53967186		0.0559800	0.5956519			
	Commercial		0.0683054		0.0046104	0.0729158			
	Industrial		0.00677166		0	0.00677166			
	Infiltration/Inflow		0.3665529		0.02263051	0.389183414			
Total	Member Calculated	0.9814	0.981302		0.08322091	1.0645228			
Monmouth Beach									
	Residential		0.23744682		0.0267	0.26414682			
	Commercial		0.03005328		0	0.03005328			
	Industrial		0.00297942		0	0.00297942			
	Infiltration/Inflow		0.1612773		0.00997245	0.17124975			
Total	Member Calculated	0.4318	0.431757		0.03667245	0.46842927			
Oceanport									
	Residential		0.38855934		0.04470	0.43326			
	Commercial		0.0491794		0.00027	0.0494494			
	Industrial		0.0048755		0.0001283	0.0050038			
	Infiltration/Inflow		0.2639151		0.01684422	0.280759315			
Total	Member Calculated	0.7066	0.706529		0.06194252	0.76847			
Red Bank									
	Residential		0.841248		0.0424727	0.8837207			
	Commercial		0.113436		0.0003737	0.1138097			
	Industrial		0.113436		0	0.113436			
	Infiltration/Inflow		0.31188		0.00968329	0.321563286			
Total	Reported	1.38	1.38		0.05252969	1.432529686			

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
Rumson									
	Residential		0.447702		0.0369153	0.4846173			
	Commercial		0.025317		0	0.025317			
	Industrial		0		0	0			
	Infiltration/Inflow		0.396981		0.0369153	0.4338963			
Total	Reported	0.87	0.87		0.0738306	0.9438306			
Sea Bright									
	Residential		0.14284		0.0172041	0.1600441			
	Commercial		0		0.0059512	0.0059512			
	Industrial		0		0	0			
	Infiltration/Inflow		0.25716		0.01488654	0.272046542			
Total	Reported	0.4	0.4		0.03804184	0.438041842			
Shrewsbury Borough									
	Residential		0.47489364		0.0165259	0.49141954			
	Commercial		0.06010656		0.0373544	0.09746096			
	Industrial		0.0059588		0.0004916	0.0064504			
	Infiltration/Inflow		0.3225546		0.0203079	0.342862505			
Total	Member Calculatec	0.8636	0.863514		0.0746798	0.938193445			
Shrewsbury Township									
	Residential		0.080002		0.0078	0.087802			
	Commercial		0		0	0			
	Industrial		0		0	0			
	Infiltration/Inflow		0.049998		0.00299988	0.05299788			
Total	Reported	0.13	0.13		0.01079988	0.14079988			
Tinton Falls									
	Residential		0.5327296		0.57187615	1.10460575			
	Commercial		0.1248520		0.07255985	0.1974119			
	Industrial		0.0384160		0.0087411	0.0471571			
	Infiltration/Inflow		0.288218		0.01143293	0.299650932			
Total	Reported	0.98 (1.092)	0.9842156		0.66461003	1.648825632			
West Long Branch									
	Residential		0.3453372		0.0302025	0.3755397			
	Commercial		0.0437088		0.0078867	0.0515955			
	Industrial		0.0043332		0.0007851	0.0051183			
	Infiltration/Inflow		0.234558		0.01451955	0.249077551			
Total	Member Calculatec	0.628	0.627937		0.05339385	0.681331051			
TRWRA Flow									
	Residential		5.23342346		1.0270768	6.2605002	6.2605002		
	Commercial		0.7082544		0.33121645	1.0394709	1.0394709		
	Industrial		0.2265101		0.052952	0.2794621	0.2794621		
	Infiltration/Inflow		3.0186157			3.0186157	3.0186157		
TRWRA Total Flow		9.81 Reported includes military flo	9.18680366	9.34	1.4112452	10.60	10.60	10.8323107	14.97656557

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Long Branch Sewerage Authority (LBSA)

The Long Branch Sewerage Authority’s wastewater treatment plant treats wastewater generated by the City of Long Branch, several lots and blocks in West Long Branch consisting of Monmouth University, an area of approximately 164 acres, and a small portion (0.7 acres) of Monmouth Beach.

LBSA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0024783
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	Long Branch Sewerage Authority
Operator of facility	Long Branch Sewerage Authority
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	City of Long Branch 150 Joline Avenue Block 401, Lots 26, 13
Location of discharge A. Latitude B. Longitude	40 degrees, 18 minutes, 52 seconds North 73 degrees, 58 minutes, 22 seconds West
Present permitted flow	5.4 MGD
Present design capacity	5.4 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Long Branch Sewerage Authority	
Present (2002)	Future (2022)
33,120	33,813

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Long Branch Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	3.21	4.46

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Long Branch Sewerage Authority (LBSA) Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Long Branch	31,340	848	31,492	1,541	32,033	1,541	32,033
West Long Branch	1,774	0	1,774	0	1,774	0	1,774
Monmouth Beach	6	0	6	0	6	0	6
Totals	33,120	848	32,272	1,541	33,813	1,541	33,813

*LBSA
 Population Served and
 to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
LBSA WTP									
Long Branch City									
	Residential		3.428676276		0.17105505	3.599731326			
	Commercial		0.537581158		0.0138668	0.551447958			
	Industrial		0.118821299		0.0001283	0.118949599			
	Infiltration/Inflow				0.018505	0.018505			
Total	Calculated	4.085078733	4.085078733		0.20355515	4.288633883			
West Long Branch									
	Residential		0.10638838		0	0.10638838			
	Commercial		0.085582529		0	0.085582529			
	Industrial		0		0	0			
	Infiltration/Inflow				0	0			
Total	Calculated	0.191970909	0.191970909		0	0.191970909			
Monmouth Beach									
	Residential		0.000950358		0	0.000950358			
	Commercial		0		0	0			
	Industrial		0		0	0			
	Infiltration/Inflow				0	0			
Total	Calculated	0.000950358	0.000950358		0	0.000950358			
LBSA Flow									
	Residential		3.536015014		0.17105505	3.707070064	3.707070064		
	Commercial		0.623163687		0.0138668	0.637030487	0.637030487		
	Industrial		0.118821299		0.0001283	0.118949599	0.118949599		
	Infiltration/Inflow					0			
LBSA Total Flow	Reported	4.278	4.278	3.21	0.18505015	4.46	4.46	4.46305015	4.58835818

*Wastewater Received and
to be Received*

Panhandle Planning Region

There are two Regional Facilities in this Planning Area. The On-site Facilities are not located within the Regional Facilities' Franchise Areas.

On-site Facilities:

- Allentown Caging (Michael Coiro Building)
- Ashford Estate
- Beacon Hill
- Charleston Springs Golf Course
- Frogbridge Day Camp
- Holmes Corner Shopping Center
- Laurel Pond RV and Camping Resort
- Luchento's Restaurant
- McDonald's Restaurant
- Millstone Township Elementary School
- Millstone Township Middle School
- New Jersey Christian Academy
- Wawa #909

Regional Facilities:

- Allentown Borough Wastewater Treatment Plant
- Roosevelt Borough Wastewater Treatment Plant

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Allentown Caging (Michael Coiro Building)

The Allentown Caging Company has two existing buildings located on Block 27, lots 30.02 and 34.01. The existing two buildings have a general NJPDES permit (NJG0142484) to discharge sanitary waste to three septic fields. Building One has a total of 130 employees working in two shifts, generating 1,950 gpd of wastewater treated by two existing septic systems. Building Two has 100 employees generating 1,500 gpd of wastewater treated by an adjacent existing septic system. The addition of a fourth septic system for a new building, the Michael Coiro Building that will generate an additional 375 gpd, requires termination of the general permit and issuance of an individual permit covering the discharge from all three buildings.

ALLENTOWN CAGING WASTEWATER FACILITIES

Existing or proposed facility	Proposed expansion
NJPDES ¹ Permit Number	NJ0162370
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	
Classification of receiving water ²	
Owner of facility	Allentown Caging Company/Michael Coiro
Operator of facility	Allentown Caging Company
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Upper Freehold Township Route 526 & Sharon Station Road Block 27, Lots 30.02, 33.01, & 34.01
Location of facility Longitude Latitude	N40 10' 7.737" W74 332' 24.88"
Present permitted flow	0.004 MGD
Present design capacity	0.004 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Allentown Caging	
Present (2008)	Future (2022)
230	300

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Allentown Caging		
Source of Flow	Present (2008 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	0.003	0.004

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Ashford Estate

Ashford Estate is a wedding facility that includes a 12-room bed and breakfast, a 250-seat banquet hall, and a 100-seat chapel. The discharge to groundwater system was designed to accommodate an anticipated 3,400 gallons per day of wastewater generated by expansion of an existing on-site wastewater treatment facility to accommodate the change in use from agriculture and residential to the wedding facility. The Monmouth County Planning Board approved a projected flow of 3,400 gallons per day into a 6,000 gallon septic system consisting of two septic tanks; one existing 3,000 gallon tank and one proposed 3,000 gallon tank, in an area where 2,000 gallons per day is permitted.

ASHFORD ESTATE WASTEWATER FACILITIES

Existing or proposed facility	Proposed
NJPDES ¹ Permit Number	NJ0179990
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	
Classification of receiving water ²	
Owner of facility	Christopher Vernon
Operator of facility	
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Upper Freehold Township 637 Province Line Road Block 50 Lot 11.03
Location of facility Longitude Latitude	
Present permitted flow	0.0034 MGD
Present design capacity	0.0034 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Ashford Estate	
Present (2002)	Future (2022)
250	250

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Ashford Estate		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.0034	0.0034
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.0034	0.0034

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Beacon Hill

A wastewater treatment plant located in southwestern Upper Freehold Township serves an age-restricted community originally known as Beacon Hill. Wastewater generated by two sections, “Heritage Green” and “Four Seasons”. Heritage Green is an 86-unit, single family housing development and Four Seasons is a 387-unit adult community. Wastewater generated is processed by a package treatment plant, receiving tertiary treatment before it is injected into groundwater. These developments are in the Doctor’s Creek watershed.

BEACON HILL WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0105228
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Englishtown Formation
Classification of receiving water ²	GW-2
Owner of facility	K.H. Beacon Hill Sewer Company
Operator of facility	Applied Water Technology
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Upper Freehold Township Province Line (Extonville) Road Block 47 Lot 19.02
Location of facility Longitude Latitude	74 degrees, 35 minutes, 40 seconds West 40 degrees, 09 minutes, 40 seconds North
Present permitted flow	0.104 MGD
Present design capacity	0.104 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Beacon Hill	
Present (2002)	Future (2022)
600	600

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Beacon Hill		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0.090	0.090
Commercial	0	0
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.090	0.090

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Charleston Springs Golf Course

The Charleston Springs Golf Course is a public golf course complex consisting of a clubhouse, two maintenance buildings, a teaching facility and two half-way houses that generate a total of 9,582 gallons per day (gpd) of wastewater flow. The facilities are served by an on-site septic system that discharges untreated wastewater to distribution and sub-surface infiltration beds for treatment and disposal. The facilities are located on Sweetman’s Lane in Millstone Township. The entire 619 acre golf course property is located at Block 44, Lots 6, 14, and 14.01. The property drains to Manalapan Brook then to the Raritan River and Raritan Bay.

CHARLESTON SPRINGS GOLF COURSE WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0133353
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Mount Laurel Formation
Classification of receiving water ²	II-A
Owner of facility	Monmouth County Park System
Operator of facility	Monmouth County Park System
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Millstone Township Sweetman’s Lane (County Route 527) Block 44, Lots 6, 14, and 14.01
Location of facility Longitude Latitude	
Present permitted flow	0.009582 MGD
Present design capacity	0.009582 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Charleston Springs Golf Course	
Present (2002)	Future (2022)
Information not available	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Charleston Springs Golf Course		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.009582	0.009582
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.009582	0.009582

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Frogbridge Day Camp

The Frogbridge Day Camp is served by an on-site septic system that discharges untreated wastewater to distribution and sub-surface infiltration beds for treatment and disposal. The facility is located between Yellow Meeting House Road and Interstate Highway 195 in Millstone Township. The property drains to Doctor’s Creek and then to Crosswicks Creek and the Delaware River.

FROGBRIDGE DAY CAMP WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0133710
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Kirkwood Formation
Classification of receiving water ²	II-A
Owner of facility	Frogbridge Day Camp
Operator of facility	Frogbridge Day Camp
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Millstone Township Yellow Meeting House Road Block 53, Lot 2
Location of facility Longitude Latitude	
Present permitted flow	0.016 MGD
Present design capacity	0.016 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Frogbridge Day Camp	
Present (2002)	Future (2022)
600 Students	600 Students
200 Staff	200 Staff
800 Total	800 Total

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Frogbridge Day Camp		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.016	0.016
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.016	0.016

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Holmes Corner Shopping Center

The Holmes Corner Shopping Center is served by an on-site septic system that discharges untreated wastewater to distribution and sub-surface infiltration beds for treatment and disposal. The facility is located on the corner of Trenton-Lakewood Road and Monmouth Road (County Route 537) in Millstone Township. The property drains to the headwaters of Toms River and then to Barnegat Bay.

HOLMES CORNER WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0136573
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Kirkwood Formation
Classification of receiving water ²	IIA
Owner of facility	Aviniah Vashisht
Operator of facility	Aviniah Vashisht
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Millstone Township 504 Monmouth Road, Clarksburg 08510 Block 60.01, Lots 18.02, 19
Location of facility A. Longitude B. Latitude	
Present permitted flow	0.002 MGD
Present design capacity	0.002 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Holmes Corner Shopping Center	
Present (2002)	Future (2022)
5,400 square feet	9,900 square feet

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Holmes Corner Shopping Center		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.002	0.002
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.002	0.002

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Laurel Pond RV and Camping Resort

The Laurel Pond RV and Camping Resort is served by three on-site septic systems that discharge untreated wastewater to distribution and sub-surface infiltration beds for treatment and disposal. Combined flow of the three septic systems is approximately 26,650 gallons per day (gpd). The facility is located on County Route 537 (Monmouth Road) in Upper Freehold Township. The property drains to an un-named tributary to Lahaway Creek thence to Crosswicks Creek and the Delaware River.

LAUREL POND RV AND CAMPING RESORT WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0133698
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Red Bank Formation
Classification of receiving water ²	II-A
Owner of facility	Laurel Pond RV and Camping Resort
Operator of facility	Laurel Pond RV and Camping Resort
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Upper Freehold Township County Route 537 (Monmouth Road) Block 34, Lot 7
Location of facility A. Longitude B. Latitude	
Present permitted flow	0.026650 MGD
Present design capacity	Information not available

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW

SUMMARY OF POPULATION SERVED/TO BE SERVED

Laurel Pond RV and Camping Resort	
Present (2002)	Future (2022)
Information not available	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Laurel Pond RV and Camping Resort		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.026650	0.026650
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.026650	0.026650

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Luchento’s Restaurant

Luchento’s Restaurant is served by an on-site septic system that discharges untreated wastewater to distribution and sub-surface infiltration beds for treatment and disposal. The facility is located on State Highway 33 in Millstone Township. The property drains to the Millstone River thence to the Delaware River.

LUCHENTO’S RESTAURANT WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ G0135194
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater
Classification of receiving water ²	Information not available
Owner of facility	Luchento’s Restaurant
Operator of facility	Luchento’s Restaurant
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Millstone Township 524 Route 33
Location of facility A. Longitude B. Latitude	
Present permitted flow	Information not available
Present design capacity	0.0077 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Luchento’s Restaurant	
Present (2002)	Future (2022)
220 seats accommodating 600 patrons	220 seats accommodating 600 patrons

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Luchento’s Restaurant		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	Information not available	Information not available

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

McDonald's Restaurant

McDonald's is a 120 seat fast food restaurant served by an on-site septic system that discharges untreated wastewater to distribution and sub-surface infiltration beds for treatment and disposal. The facility is located on County Route 537 (Monmouth Road) near the Interstate Highway 195 interchange in Millstone Township. The property drains to Doctor's Creek then to Crosswicks Creek and the Delaware River.

MCDONALD'S OF MILLSTONE WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0137804
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Kirkwood Formation
Classification of receiving water ²	II-A
Owner of facility	McDonald's Corporation
Operator of facility	McDonald's Corporation
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Millstone Township County Route 537 (Monmouth Road) Block 57.01, Lot 19
Location of facility Longitude Latitude	
Present permitted flow	0.0042 MGD
Present design capacity	0.0042 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

McDonald's Restaurant	
Present (2002)	Future (2022)
120 seats	120 seats

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

McDonald's Restaurant		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.0042	0.0042
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.0042	0.0042

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Millstone Township Elementary School

Millstone Township Elementary School is located on Schoolhouse Road in Clarksburg (Millstone Township). The property is within the Millstone River watershed.

MILLSTONE TOWNSHIP ELEMENTARY SCHOOL WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ0103268
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Kirkwood Formation
Classification of receiving water ²	GW-II A
Owner of facility	Millstone Township School District
Operator of facility	Millstone Township School District
Co-permittee of facility	None
Location of facility D. Municipality E. Street Address F. Block and lot	Millstone Township Schoolhouse Road
Location of facility Longitude Latitude	74 degrees, 25 minutes, 26 seconds 40 degrees, 12 minutes, 48 seconds
Present permitted flow	0.018 MGD
Present design capacity	Information not available

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Millstone Township Elementary School	
Present (2002)	Future (2022)
875 Students	875 Students

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Millstone Township Elementary School		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential	0	0
Commercial	0.018	0.018
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.018	0.018

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Millstone Township Middle School

The Millstone Township Middle School is located at 308 Millstone Road in the Clarksburg section of Millstone Township. The property is within the Millstone River watershed.

MILLSTONE TOWNSHIP MIDDLE SCHOOL WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0162591
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Red Bank Formation
Classification of receiving water ²	II-A
Owner of facility	Millstone Township School District
Operator of facility	Millstone Township School District
Co-permittee of facility	None
Location of facility G. Municipality H. Street Address I. Block and lot	Millstone Township 308 Millstone Road Block 25, Lot 1
Location of facility Longitude Latitude	74 degrees, 23 minutes, 27 seconds 40 degrees, 14 minutes, 14 seconds
Present permitted flow	0.01685 MGD
Present design capacity	Information not available

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Millstone Township Middle School	
Present (2002)	Future (2022)
850	850

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Millstone Township Middle School		
Source of Flow	Present (2006 - MGD)	20 Year Future (2026 - MGD)
Residential	0	0
Commercial	0.01685	0.01685
Industrial	0	0
Infiltration/Inflow	0	0
Total	0.01685	0.01685

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

New Jersey Christian Academy

The New Jersey Christian Academy is an existing camp used for religious retreats. The facility septic system is comprised of five (5) 1,000 gallon septic tanks in series discharging into two (2) septic disposal fields of 60' x 100'. The total disposal area is 12,000 square feet. Long Bog Run runs along the southern border of this parcel. Long Bog Run is a tributary of Crosswick's Creek, which eventually flows to the Delaware River.

NJ CHRISTIAN ACADEMY WASTEWATER FACILITIES TABLE

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJG0138061
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	
Classification of receiving water ²	
Owner of facility	
Operator of facility	
Co-permittee of facility	
Location of facility G. Municipality H. Street Address I. Block and lot	Cream Ridge 73 Holmes Mill Road
Location of facility E. Longitude F. Latitude	
Present permitted flow	0.00488 MGD
Present design capacity	Information not available

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

NJ Christian Academy	
Present (2002)	Future (2022)
Information not available	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

NJ Christian Academy		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	Information not available	Information not available

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Wawa #909

Wawa #909 is located at the junction of Pine Drive and Route 537 in Millstone Township. There is an onsite discharge to groundwater wastewater treatment system that accommodates 3,500 gpd, serving a convenience store and gas station. This facility is located within the Crosswicks Creek watershed.

WAWA #909 WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0140767
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Kirkwood Formation
Classification of receiving water ²	II-A
Owner of facility	Wawa Incorporated
Operator of facility	Wawa Incorporated
Co-permittee of facility	None
Location of facility J. Municipality K. Street Address L. Block and lot	Millstone Township 542 Monmouth Road Block 57.01, Lot 19.01
Location of facility Longitude Latitude	74 degrees, 25 minutes, 49 seconds 40 degrees, 09 minutes, 25 seconds
Present permitted flow	0.0035 MGD
Present design capacity	0.0035 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Wawa #909	
Present (2002)	Future (2022)

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Wawa #909		
Source of Flow	Present (2006 - MGD)	20 Year Future (2026 - MGD)
Residential		
Commercial	0.0035	0.0035
Industrial		
Infiltration/Inflow		
Total	0.0035	0.0035

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Allentown Borough Wastewater Treatment Plant

The Allentown Borough Wastewater Treatment Plant provides wastewater treatment for the Borough of Allentown and several adjacent lots located in Upper Freehold Township. The plant discharges to Doctor’s Creek, which drains to the Delaware River.

ALLENTOWN BOROUGH WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0020206
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Doctor’s Creek
Classification of receiving water ²	FW-2NT
Owner of facility	Borough of Allentown
Operator of facility	Borough of Allentown
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Borough of Allentown Breza Road Block 17, Lot 1.01
Location of discharge A. Longitude B. Latitude	74 degrees, 35 minutes, 46.5 seconds West 40 degrees, 10 minutes, 37.1 seconds North
Present permitted flow	0.238 MGD
Present design capacity	0.238 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Allentown Borough Wastewater Treatment Plant	
Present (2002)	Future (2022)
1,848	1,910

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Allentown Borough Wastewater Treatment Plant		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	0.182	0.189

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Allentown Village Center Wastewater Treatment Plant Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Allentown	1,809	15	1,794	79	1,873	333	2,127
Upper Freehold	39	7	32	4	37	75	107
Totals	1,848	21	1,827	83	1,910	407	2,234

*Allentown
Population Served and
to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
Allentown WTP									
	Residential		0.16578949		0.00891	0.17469949			
	Commercial		0.005526641		0	0.005526641			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00089	0.00089			
Total	Calculated	0.171316131	0.171316131		0.0098	0.181116131			
Upper Freehold									
	Residential		0.007806565		0.0004392	0.008245765			
	Commercial		0.000866629		0	0.000866629			
	Industrial		0.0000106759		0	0.0000106759			
	Infiltration/Inflow				0.00004392	0.00004392			
Total	Calculated	0.008683869	0.008683869		0.00048312	0.009166989			
Allentown Flow									
	Residential		0.173596055		0.0093492	0.182945255	0.182945255		
	Commercial		0.006393269		0	0.006393269	0.006393269		
	Industrial		0.000009		0	0.0000106759	0.000009		
	Infiltration/Inflow						0		
Allentown Total Flow	Reported	0.18	0.179998324	0.182	0.0093492	0.189	0.189	0.189347524	0.230073624

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Roosevelt Borough Wastewater Treatment Plant

The Borough of Roosevelt’s wastewater treatment plant treats wastewater generated within the borough. The Borough does not anticipate expanding its plant nor does it expect to expand sanitary sewer service beyond existing infrastructure. The plant discharges to Assunpink Creek, which drains to the Delaware River.

ROOSEVELT BOROUGH WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0022918
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Assunpink Creek
Classification of receiving water ²	FW2-NT(CI)
Owner of facility	Borough of Roosevelt
Operator of facility	Borough of Roosevelt
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Roosevelt Borough Pine Drive Block 2, Lot 8
Location of discharge A. Latitude B. Longitude	40 degrees, 13 minutes, 52 seconds North 74 degrees, 30 minutes, 25 seconds West
Present permitted flow	0.25 MGD
Present design capacity	0.325 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Roosevelt Borough Wastewater Treatment Plant	
Present (2002)	Future (2022)
438	463

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Roosevelt Borough Wastewater Treatment Plant		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	0.168	0.205

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Roosevelt Village Center Wastewater Treatment Plant Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	Additional 2022	2022 Estimate	Additional Build-Out	Build-Out Estimate
Roosevelt	438	109	329	25	463	25	463
Totals	438	109	329	25	463	25	463

*Roosevelt
 Population Served and
 to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
Roosevelt WTP									
Roosevelt Flow									
	Residential		0.125435775		0.0027	0.128135775	0.128135775		
	Commercial		0.000964225		0.0002609	0.001225125	0.001225125		
	Industrial		0		0	0	0		
	Infiltration/Inflow		0.076			0.076	0.076		
Roosevelt Total Flow	Reported 1995	0.1264	0.2024			0.205	0.205	0.205	

South Monmouth Planning Region

There are four Regional Facilities within this Planning Region, and one On-site Facilities.

Regional Facilities:

- Asbury Park Water Quality Control Facility
- South Monmouth Regional Sewerage Authority (SMRSA)
- Township of Neptune Sewerage Authority (TNSA)
- Township of Ocean Sewerage Authority (TOSA)

On-site Facilities in this Planning Region:

- Econo Lodge Hotel

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Asbury Park Water Quality Control Facility

The Asbury Park Water Quality Control Facility treats wastewater generated by the City of Asbury Park as well as to two lots located in Neptune Township. This facility discharges to the Atlantic Ocean.

ASBURY PARK WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0025241
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	City of Asbury Park
Operator of facility	City of Asbury Park
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	City of Asbury Park Eighth Ave., Kingsley St., and Ocean Ave. Block 229, Lot 1
Location of discharge A. Longitude B. Latitude	73 degrees, 59 minutes, 38 seconds West 40 degrees, 13 minutes, 38 seconds North
Present permitted flow	4.4 MGD
Present design capacity	4.4 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Asbury Park Water Quality Control Facility	
Present (2002)	Future (2022)
16,930	16,963

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Asbury Park Water Quality Control Facility		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	2.26	2.90

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Asbury Park Water Quality Control Facility Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Asbury Park	16,930	8	16,923	41	16,963	123	17,046
Totals	16,930	8	16,923	41	16,963	123	17,046

*Asbury Park
 Population Served and
 to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
Asbury Park WTP									
Asbury Park Flow									
	Residential		2.104972262		0.0043836	2.109355862	2.109355862		
	Commercial		0.655270602		0.0015937	0.656864302	0.656864302		
	Industrial		0.131757136		0	0.131757136	0.131757136		
	Infiltration/Inflow					0			
Asbury Park Total Flow	Reported	2.892	2.892	2.261	0.0059773	2.8979773	2.8979773	2.8979773	2.92237045

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

South Monmouth Regional Sewerage Authority (SMRSA)

The South Monmouth Sewerage Authority wastewater treatment plant provides wastewater treatment for portions of Wall Township and the Boroughs of Belmar, South Belmar, Spring Lake Heights, Spring Lake, Sea Girt, Manasquan, and Brielle.

Sewer connections to the Southeast Wall Township collection system are subject to United States Environmental Protection Agency grant conditions under project number C-34-622-01. These grant conditions prohibit the discharge of wastewater into this system from any building, facility, or other manner of construction on any area mapped as wetlands on the National Wetlands Inventory maps prepared by the U.S. Fish and Wildlife Service or within the 100 year floodplain as defined by the Department of Housing and Urban Development.

SMRSA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0024562
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	South Monmouth Regional Sewerage Authority
Operator of facility	South Monmouth Regional Sewerage Authority
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Wall Township 1235 18 th Avenue Block 72, Lot 17
Location of discharge A. Longitude B. Latitude	74 degrees, 00 minutes, 00 seconds West 40 degrees, 10 minutes, 00 seconds North
Present permitted flow	9.1 MGD
Present design capacity	9.1 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

South Monmouth Regional Sewerage Authority	
Present (2002)	Future (2022)
29,892	30,538

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

South Monmouth Regional Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	5.54	5.59

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan South Monmouth Regional Sewerage Authority (SMRSA) Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Belmar	5,982	4	5,978	4	5,982	4	5,982
Brielle	4,864	129	4,736	486	5,222	486	5,222
Manasquan	6,305	68	6,237	190	6,427	1,040	7,277
Sea Girt	2,141	0	2,141	0	2,141	0	2,141
South Belmar	1,806	0	1,806	0	1,806	0	1,806
Spring Lake	3,567	103	3,465	132	3,596	132	3,596
Spring Lake Heights	5,227	31	5,196	169	5,364	196	5,391
Totals	29,892	335	29,559	981	30,538	1,858	31,415

*SMRSA
 Population Served and
 to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
SMRSA WTP									
Belmar									
	Residential		0.73740576		0.0006	0.73800576			
	Commercial		0.14339424		0.000063	0.14345724			
	Industrial		0		0	0			
	Infiltration/Inflow				0.0000663	0.0000663			
Total	Reported	0.8808	0.8808	0.90613	0.0007293	0.8815293			
Brielle									
	Residential		0.325238844		0.0579	0.383138844			
	Commercial		0.030291156		0.0011831	0.031474256			
	Industrial		0		0	0			
	Infiltration/Inflow				0.0059083	0.0059083			
Total	Reported	0.35553	0.35553	0.42923	0.0649914	0.4205214			
Manasquan									
	Residential		0.56998365		0.0234	0.59338365			
	Commercial		0.04606245		0	0.04606245			
	Industrial		0.0106539		0	0.0106539			
	Infiltration/Inflow				0.00234	0.00234			
Total	Reported	0.6267	0.6267	0.81735	0.02574	0.65244			
Sea Girt									
	Residential		0.202338096		0.0000188	0.202356896			
	Commercial		0.001981904		0	0.001981904			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00000188	0.00000188			
Total	Reported	0.20432	0.204320	0.25063	0.00002068	0.20434068			
South Belmar									
	Residential		0.13637		0	0.13637			
	Commercial		0.09102		0	0.09102			
	Industrial		0.02373		0.0012722	0.02501			
	Infiltration/Inflow				0.00012722	0.00012722			
Total	Reported	0.25115	0.25112	0.35967	0.00139942	0.25252			

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
Spring Lake									
	Residential		0.465004808		0.0162	0.481204808			
	Commercial		0.009635192		0	0.009635192			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00162	0.00162			
Total	Reported	0.47464	0.47464	0.59219	0.01782	0.49246			
Spring Lake Heights									
	Residential		0.44622		0.0243	0.47052			
	Commercial		0		0.0000206	0.0000206			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00243206	0.00243206			
Total	Reported	0.44622	0.44622	0.396479	0.02675266	0.47297266			
Wall									
	Residential		0.936487162		0.7074	1.643887162			
	Commercial		0.165132838		0.3729298	0.538062638			
	Industrial		0.000011		0.0416568	0.0416678			
	Infiltration/Inflow				0.1219866	0.1219866			
Total	Reported	1.01631	1.101631	1.78503	1.2439732	2.3456042			
SMRSA Flow									
	Residential		3.81905		0.8298188	4.64887	4.64887		
	Commercial		0.48751		0.3741965	0.86171	0.86171		
	Industrial		0.03440		0.042929	0.07733	0.07733		
	Infiltration/Inflow						0		
SMRSA Total Flow	Reported	4.341	4.34097	5.536709	1.2469443	5.59000	5.59	5.58791	6.04461

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Township of Neptune Sewerage Authority (TNSA)

The Township of Neptune Sewerage Authority provides wastewater treatment for portions of the Borough of Tinton Falls, a portion of the Township of Wall, the Township of Neptune including Ocean Grove, and the Boroughs of Avon–By-The-Sea, Bradley Beach, and Neptune City. TNSA also provides treatment for a single lot located in the City of Asbury Park.

TNSA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0024872
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	Township of Neptune Sewerage Authority
Operator of facility	Township of Neptune Sewerage Authority
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Neptune Township 634 Old Corlies Avenue Block 5000, Lot 5
Location of discharge A. Longitude B. Latitude	74 degrees, 1 minutes, 46 seconds West 40 degrees, 12 minutes, 45 seconds North
Present permitted flow	8.5 MGD
Present design capacity	8.5 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Township of Neptune Sewerage Authority	
Present (2002)	Future (2022)
46,022	52,162

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Township of Neptune Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	4.95	6.26

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Township of Neptune Sewerage Authority (TNSA) Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Avon-By-The Sea	2,244	0	2,244	0	2,244	0	2,244
Bradley Beach	4,793	0	4,793	0	4,793	0	4,793
Neptune	27,690	1,638	26,052	5,783	31,835	5,806	31,858
Neptune City	5,218	33	5,185	178	5,363	414	5,599
Tinton Falls	5,583	1,609	3,974	3,069	7,043	3,794	7,768
Wall Township	494	188	306	579	885	579	885
Totals	46,022	3,469	42,554	9,603	52,162	10,593	53,146

*TNSA
 Population Served and
 to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
TNSA WTP									
Avon-By-The-Sea									
	Residential		0.205820573		0	0.205820573			
	Commercial		0.041940411		0	0.041940411			
	Industrial		0		0	0			
	Infiltration/Inflow				0	0			
Total	Calculated	0.247760991	0.247760991		0	0.247760984			
Bradley Beach									
	Residential		0.279735975		0	0.279735975			
	Commercial		0.071804457		0.0003845	0.072188957			
	Industrial		0.007954427		0.0001283	0.008082727			
	Infiltration/Inflow				0.00005128	0.00005128			
Total	Calculated	0.359494842	0.359494860		0.00056408	0.360058940			
Neptune City									
	Residential		0.404914369		0.02268	0.427594369			
	Commercial		0.104722783		0.0005751	0.105297883			
	Industrial		0.024733646		0.0001385	0.024872146			
	Infiltration/Inflow				0.00233936	0.00233936			
Total	Calculated	0.534370798	0.534370798		0.02573296	0.560103758			
Neptune									
	Residential		2.660800828		0.70611725	3.366918078			
	Commercial		0.660727487		0.231349	0.892076487			
	Industrial		0.140825133		0.0414946	0.182319733			
	Infiltration/Inflow				0.09789609	0.097896085			
Total	Calculated	3.462353447	3.462353447		1.07685694	4.539210382			
Tinton Falls									
	Residential		0.376041639		0.0648	0.440841639			
	Commercial		0.026279948		0.0550212	0.081301148			
	Industrial		0.114953386		0.0111978	0.126151186			
	Infiltration/Inflow				0.01338863	0.013388625			
Total	Calculated	0.517274973	0.517274973		0.14440763	0.661682598			
TNSA Flow									
	Residential		3.927313383		0.79359725	4.720910633	4.720910633		
	Commercial		0.905475086		0.2873298	1.192804886	1.192804886		
	Industrial		0.288466593		0.0529592	0.341425793	0.341425793		
	Infiltration/Inflow					0	0		
TNSA Total Flow	Reported	5.121255	5.121255062	4.95	1.13388625	6.26	6.26	6.255141312	10.85622793

*Wastewater Received and
to be Received*

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Township of Ocean Sewerage Authority (TOSA)

The Township of Ocean Sewerage Authority wastewater treatment plant serves Ocean Township. In addition, wastewater treatment is provided to the Boroughs of Interlaken, Allenhurst, Deal, the Village of Loch Arbour, and twelve single-family units located in the Borough of Tinton Falls. The plant discharges to the Atlantic Ocean.

TOSA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0024520
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Atlantic Ocean
Classification of receiving water ²	SC
Owner of facility	Township of Ocean Sewerage Authority
Operator of facility	Township of Ocean Sewerage Authority
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Township of Ocean (Oakhurst) 224 Roosevelt Avenue Block 22, Lot 75
Location of discharge A. Latitude B. Longitude	40 degrees, 15 minutes, 19 seconds North 73 degrees, 59 minutes, 12 seconds West
Present permitted flow	7.5 MGD
Present design capacity	7.5 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Township of Ocean Sewerage Authority	
Present (2002)	Future (2022)
30,066	30,682

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Township of Ocean Sewerage Authority		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	4.14	5.40

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Township of Ocean Sewerage Authority (TOSA) Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Allenhurst	718	13	705	18	723	18	723
Deal	1,067	111	956	131	1,087	131	1,087
Interlaken	900	9	891	9	900	9	900
Loch Arbour	280	0	280	0	280	0	280
Ocean	26,959	1,530	25,429	2,097	27,526	4,066	29,494
Tinton Falls	142	6	136	30	167	82	218
Totals	30,066	1,669	28,397	2,285	30,682	4,305	32,702

TOSA
*Population Served and
 to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AND 2002 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2022 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2002 Flow Reported	Model Flow	Estimated 2022 Flow	Total Source Flow	Total 2022 WTP Flow	Total Flow at Build-Out*
TOSA WTP									
Allenhurst	Residential		0.114813835		0.0021	0.116913835			
	Commercial		0.014792428		0	0.014792428			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00021	0.00021			
Total	Calculated	0.129606263	0.129606263	0.11607117	0.00231	0.131916263			
Deal	Residential		0.556998517		0.0159	0.572898517			
	Commercial		0.006711223		0	0.006711223			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00159	0.00159			
Total	Calculated	0.56370974	0.56370974	0.56370974	0.01749				
Interlaken	Residential		0.197257183		0.0012	0.198457183			
	Commercial		0		0	0			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00012	0.00012			
Total	Calculated	0.197257183	0.197257183	0.17665714	0.00132	0.198577183			
Loch Arbour	Residential		0.057513049		0.00034	0.057853049			
	Commercial		0.002533622		0.0002977	0.002831322			
	Industrial		0		0	0			
	Infiltration/Inflow				0.00006377	0.00006377			
Total	Calculated	0.060046671	0.060046671	0.05377585	0.00070147	0.060748141			
Ocean	Residential		3.001911553		0.2547	3.256611553			
	Commercial		0.492846973		0.1119307	0.604777673			
	Industrial		0.12156565		0.0006454	0.12221105			
	Infiltration/Inflow				0.03672761	0.03672761			
Total	Calculated	3.616324176	3.616324176	3.23866265	0.40400371	4.020327886			
Tinton Falls	Residential		0.057182393		0.2778007	0.334983093			
	Commercial		0.000863427		0.1127779	0.113641327			
	Industrial		0.000010		0.0006462	0.000656			
	Infiltration/Inflow				0.03912248	0.03912248			
Total	Calculated	0.058055968	0.058055968	0.05199304	0.43034728	0.488403248			
TOSA Flow	Residential		3.985676529		0.5520407	4.537717229	4.537717229		
	Commercial		0.517747673		0.2250063	0.742753973	0.742753973		
	Industrial		0.121575798		0.0012916	0.122867398	0.122867		
	Infiltration/Inflow					0			
TOSA Total Flow	Reported	4.625	4.625	4.142	0.7783386	5.40	5.40	5.4033386	8.1296869

*Wastewater Received and
to be Received*

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Econo Lodge Hotel

The Econo Lodge Hotel is located at 5309 Route 33 in Wall Township. The facility is a thirty room motel that includes a manager’s apartment and laundry facilities. The design flow of the facility is 5,900 gallons per day, discharge to groundwater. This facility is located within the Shark River drainage basin; the Shark River flows to the Atlantic Ocean.

ECONO LODGE WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ0074977
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Cohansey Aquifer
Classification of receiving water ²	IIA
Owner of facility	Econo Lodge Hotel
Operator of facility	Pankaj Patel
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Wall Township 5309 Route 33 and 34 Block 911, lot 26
Location of facility Longitude Latitude	
Present permitted flow	0.0059 MGD
Present design capacity	0.0059 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Econo Lodge Hotel	
Present (2002)	Future (2022)
Information not available	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Econo Lodge Hotel		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	Information not available	Information not available

Western Monmouth Planning Region

Regional Facility:

- Western Monmouth Utilities Authority (WMUA)

On-site Facilities within WMUA's Franchise Area:

- Brunswick Country Lanes
- Marlboro State Psychiatric Hospital Treatment Plant
- Monmouth Battlefield State Park Treatment Plant

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Western Monmouth Utilities Authority (WMUA)

The Western Monmouth Utilities Authority's Pine Brook Wastewater Treatment Plant was granted an expansion in 1997 that permits a flow of 8.8 million gallons of sewage per day (MGD) (information taken from the WMUA 1998 WMP).

WMUA serves Manalapan Township, the Borough of Englishtown, the northern portion of Freehold Township between County Route 522 and the Central Jersey Railroad, the southerly portion of Marlboro Township, and a portion of Marlboro Township south of the Matawan Creek watershed in an area known as Morganville. The treatment plant also provides service to several domestic and industrial customers in Old Bridge Township, Middlesex County. The Old Bridge service is considered to be temporary until the Old Bridge Utilities Authority can provide service.

The plant provides tertiary treatment year round. Nitrification is provided in the months between April and October. Plant effluent is discharged to Pine Brook, which is in the Matchaponix Brook/South River watersheds.

Sewer connections to the Marlin Estates collection system in Marlboro Township are subject to United States Environmental Protection Agency grant conditions under project number C-34-0796-01. These grant conditions prohibit the discharge of wastewater into this system from any building, facility, or other manner of construction on any area mapped as wetlands on the National Wetlands Inventory Maps prepared by the U.S. Fish and Wildlife Services or within the 100 year floodplain as defined by the Department of Housing and Urban Development.

WMUA WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0023728
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Pine Brook
Classification of receiving water ²	FW2-NT
Owner of facility	Western Monmouth Utilities Authority
Operator of facility	Western Monmouth Utilities Authority
Co-permittee of facility	NA
Location of facility A. Municipality B. Street Address C. Block and lot	Manalapan Township Utility Road
Location of discharge A. Longitude B. Latitude	74 degrees, 24 minutes, 39 seconds West 40 degrees, 18 minutes, 56 seconds North
Present permitted flow	8.8 MGD
Present design capacity	8.8 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Western Monmouth Utilities Authority	
Present (2005)	Future (2025)
65,923	82,060

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Western Monmouth Utilities Authority		
Source of Flow	Present (2005 - MGD)	20 Year Future (2025 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	5.5	7.60

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth County Wastewater Management Plan Western Monmouth Utility Authority (WMUA) Population Served and to be Served							
Municipality	2000 Population	2000 Projection	1995 Estimate	2022 Additional	2022 Estimate	Additional Build-Out	Build-Out Estimate
Englishtown	1,749	210	1,539	534	2,073	534	2,073
Freehold Township	4,947	543	4,404	2,111	6,515	2,111	6,515
Manalapan	29,711	2,612	27,099	9,891	36,990	15,184	42,283
Marlboro	29,516	3,198	26,318	10,164	36,482	10,239	36,557
Totals	65,923	6,563	59,360	22,700	82,060	28,068	87,428

*WMUA
 Population Served and
 to be served*

**MONMOUTH COUNTY WASTEWATER MANAGEMENT PLAN - SUMMARY OF WASTEWATER FLOWS RECEIVED AND TO BE RECEIVED
MUNICIPAL AND WASTEWATER TREATMENT PLANT (WTP) ANNUAL WASTEWATER FLOWS (mgd)
YEAR 1995 AVERAGE ANNUAL METERED FLOWS - ESTIMATED YEAR 2025 FLOWS - ESTIMATED BUILD-OUT FLOWS**

*Estimated Build-Out flow includes 10% I/I or Authority I/I estimate

Municipality	Flow Source	WTP Reported 1995 Flow	1995 Flow	2005 Flow Reported	Model Flow	Estimated 2025 Flow	Total Source Flow	Total 2025 WTP Flow	Total Flow at Build-Out*
WMUA Pine Brook WTP									
Englishtown	Residential		0.119		0.0834				
	Commercial		0.018		0.054558				
	Industrial		0		0.010241				
	Infiltration/Inflow		0.011		0				
Total	Reported 98 WMP	0.148	0.148		0.148199	0			
Freehold Township	Residential		0.127		0.2133				
	Commercial		0.027		0.04882				
	Industrial		0		0.025591				
	Infiltration/Inflow		0.012		0				
Total	Reported 98 WMP	0.166	0.166		0.287711	0			
Manalapan	Residential		1.847		0.7251				
	Commercial		0.169		0.222114				
	Industrial		0		0.184636				
	Infiltration/Inflow		0.165		0				
Total	Reported 98 WMP	2.181	2.181		1.13185	0			
Marlboro	Residential		1.703		0.6138				
	Commercial		0.142		0.731716				
	Industrial		0.021		0.165863				
	Infiltration/Inflow		0.153		0				
Total	Reported 98 WMP	2.019	2.019		1.511379	0			
Old Bridge/Monroe	Residential		0		0				
	Commercial		0.004		0				
	Industrial		0		0				
	Infiltration/Inflow		0		0				
Total	Reported 98 WMP	0.004	0.004		0	0			
WMUA Flow		Additional I/I 0.454 see 1998 WMP	4.972		3.079139				
Monmouth County	Residential		3.796		1.6356	1.4238	1.4238		
	Commercial		0.36		1.057208	0.4174	0.4174		
	Industrial		0.021		0.386331	0.2372	0.2372		
	Infiltration/Inflow		0.341		0	0	0		
Middlesex County	Estimated Total				0.02				
WMUA Total Flow	Reported	4.520313	4.97	5.5	3.08	7.6	7.6	7.6	8.60

*Wastewater Received and
to be Received*

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Brunswick Country Lanes

Brunswick Country Lanes is a bowling complex located on State Highway Route 33 (Eastbound) in Manalapan Township. The complex utilizes an on-site septic system that discharges untreated raw and recycled wastewater to subsurface treatment and disposal beds. The facility is located on property that drains to a tributary of Manalapan Brook.

BRUNSWICK COUNTRY LANES WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0087297
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW
Name of receiving water	Groundwater-Red Bank and Tinton Sand Formation
Classification of receiving water ²	II-A
Owner of facility	Manalapan 33 Corporation
Operator of facility	Manalapan 33 Corporation
Co-permittee of facility	None
Location of facility Municipality Street Address Block and lot	Manalapan Township State Highway Route 33 (East) and Park Avenue Block 74, Lots 24.02 – 24.10
Location of facility Longitude Latitude	
Present permitted flow	0.00199 MGD
Present design capacity	0.003808 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Brunswick Country Lanes	
Present (2002)	Future (2022)
Information not available	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Brunswick Country Lanes		
Source of Flow	Present (2002 - MGD)	20 Year Future (2022 - MGD)
Residential		
Commercial		
Industrial		
Infiltration/Inflow		
Total	Information not available	Information not available

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Marlboro State Psychiatric Hospital Treatment Plant

The Marlboro State Psychiatric Hospital Treatment Plant is a privately owned facility that serves a State-owned hospital complex. The hospital complex is located on County Route 520 in the northwestern area of Marlboro Township, which in turn is part of the WMUA district area. The hospital is currently closed. However, the wastewater treatment plant currently serves a New Jersey Department of Corrections farm facility and a drug treatment facility known as “Discovery House”. Additional future use of the facility has not been determined. The plant provides secondary treatment and discharges to Big Brook. Big Brook is part of the Swimming River Watershed.

MARLBORO STATE PSYCHIATRIC HOSPITAL WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0022586
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DSW
Name of receiving water	Big Brook
Classification of receiving water ²	FW2-NT
Owner of facility	Marlboro State Hospital
Operator of facility	Marlboro State Hospital
Co-permittee of facility	NA
Location of facility A. Municipality B. Street Address C. Block and lot	Marlboro Township County Route 520
Location of facility A. Longitude B. Latitude	74 degrees, 14 minutes, 35 seconds West 40 degrees, 20 minutes, 25 seconds North
Present permitted flow	1.0 MGD
Present design capacity	1.0 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DSW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Marlboro State Hospital	
Present (2002)	Future (2022)
Information not available	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Marlboro State Hospital		
Source of Flow	Present (2002) - MGD)	20 Year Future (2022) - MGD)
Residential	0.000	0.000
Commercial	0.148	0.148
Industrial	0.000	0.000
Infiltration/Inflow	0.026	0.026
Total	0.174	0.174

WASTEWATER MANAGEMENT PLAN FOR MONMOUTH COUNTY

Monmouth Battlefield State Park Treatment Plant

Monmouth Battlefield State Park Treatment Plant is a private facility that provides secondary treatment of wastewater generated by the Park’s Visitor Center. The plant is located in the center of the Park and discharges to groundwater. Wastewater from an on-site domestic water treatment plant is combined with wastewater from the Visitor’s Center. Spray irrigation using the plant’s discharge is utilized in the warm months. Direct groundwater injection is utilized in the cold months. The park is associated with Wemrock Brook, Weamaconk Creek, and McGellairds Brook, all tributaries of the Matchaponix Brook, which, in turn, is a tributary of South River.

MONMOUTH BATTLEFIELD STATE PARK WASTEWATER FACILITIES

Existing or proposed facility	Existing
NJPDES ¹ Permit Number	NJ 0091219
Discharge to Groundwater (DGW) or Discharge to Surface Water (DSW)	DGW/Spray Irrigation
Name of receiving water	Groundwater-Red Bank Formation
Classification of receiving water ²	II-A
Owner of facility	Monmouth Battlefield State Park
Operator of facility	Monmouth Battlefield State Park
Co-permittee of facility	None
Location of facility A. Municipality B. Street Address C. Block and lot	Freehold Township New Jersey State Highway Route 33
Location of facility A. Longitude B. Latitude	Discharge location is variable
Present permitted flow	0.011 MGD
Present design capacity	0.007 MGD

¹ New Jersey Pollutant Discharge Elimination System (NJPDES)

² See Appendix D

The following tables provide summaries of service area population and wastewater flow received or to be received expressed in mgd and as a 30-day average flow for DGW:

SUMMARY OF POPULATION SERVED/TO BE SERVED

Monmouth Battlefield State Park	
Present (2002)	Future (2022)
Information not available	Information not available

SUMMARY OF WASTEWATER FLOW RECEIVED/TO BE RECEIVED

Monmouth Battlefield State Park		
Source of Flow	Present (2002) - MGD	20 Year Future (2022 - MGD)
Residential	0.0000	0.0000
Commercial	0.0061	0.0061
Industrial	0.0000	0.0000
Infiltration/Inflow	0.0009	0.0009
Total	0.0070	0.0070

SUMMARY TABLES

Monmouth County Wastewater Management Plan (WMP)
Existing and Future Sewer Service Area Population Estimates
Based on Year 2000 Census Information - Estimated From Year 1995

MUN	WWTP Area	1995 Est. Population	2000 Population	2022 Estimate	Build Out Estimate
ABERDEEN TWP	BRSA	16698	17454	19660	21520
ALLENHURST BORO	TOSA	705	718	720	720
ALLENTOWN BORO	Allentown WWTP	1867	1882	1950	2200
ASBURY PARK CITY	Asbury Park WWTP	16923	16930	16960	17050
ATLANTIC HIGHLANDS BORO	TOMSA	3899	3914	3980	4170
AVON BY THE SEA BORO	TNSA	2244	2244	2250	2250
BELMAR BORO	SMRSA	6041	6045	6050	6050
BRADLEY BEACH BORO	TNSA	4793	4793	4800	4800
BRIELLE BORO	SMRSA	4765	4893	5150	5250
COLTS NECK TWP	MRRSA/DGW	401	444	570	570
DEAL BORO	TOSA	959	1070	1090	1090
EATONTOWN BORO	TRWRA	13564	14008	14830	14830
ENGLISHTOWN BORO	WMUA	1554	1764	2090	2090
FAIR HAVEN BORO	TRWRA	5884	5937	6070	6070
FARMINGDALE BORO	MRRSA	1582	1587	1600	1600
FREEHOLD BORO	MRRSA	10797	10976	1130	11180
FREEHOLD TWP	WMUA/MRRSA	25761	29363	35370	35370
GATEWAY NAT'L REC AREA	Fort Hancock WWTP	160	160	160	160
HAZLET TWP	BRSA	21068	21378	22740	2540
HIGHLANDS BORO	TOMSA	5042	5097	5310	5760
HOLMDEL TWP	BRSA	7789	9674	13560	19000
HOWELL TWP	MRRSA	35357	37428	46540	49600
INTERLAKEN BORO	TOSA	891	900	900	900
KEANSBURG BORO	BRSA	10696	10732	10790	10790
KEYPORT BORO	BRSA	7511	7568	7620	7620
LITTLE SILVER BORO	TRWRA	6043	6170	6680	6680
LOCH ARBOUR VILLAGE	TOSA	280	280	280	280
LONG BRANCH CITY	LBSA/	30492	31340	32030	32030
MANALAPAN TWP	WMUA	27099	29711	36990	42280
MANASQUAN BORO	SMRSA	6242	6310	6430	7280
MARLBORO TWP	WMUA/BRSA	28531	33312	43870	43990
MATAWAN BORO	BRSA	8725	8910	9600	10390
MIDDLETOWN TWP	TOMSA	61756	63626	70550	77480
MILLSTONE TWP	DGW	0	0	0	0
MONMOUTH BEACH BORO	TRWRA/LBSA	3541	3595	3740	3740
NEPTUNE CITY BORO	TNSA	5185	5218	5360	5600
NEPTUNE TWP	TNSA	26052	27690	31840	31860
OCEAN TWP	TOSA	25429	26959	27530	29490
OCEANPORT BORO	TRWRA	5722	5807	6140	6140
RED BANK BORO	TRWRA	11673	11844	12570	12570
ROOSEVELT BORO	Roosevelt WWTP	790	681	710	710
RUMSON BORO	TRWRA	7035	7137	7410	7410
SEA BRIGHT BORO	TRWRA	1807	1818	2250	2250

SEA GIRT BORO	SMRSA	2148	2148	2150	2150
SHREWSBURY BORO	TRWRA	3557	3590	3730	3730
SHREWSBURY TWP	TRWRA	1087	1098	1140	1140
SOUTH BELMAR BORO	SMRSA	1806	1806	1810	1810
SPRING LAKE BORO	SMRSA	3465	3567	3600	3600
SPRING LAKE HEIGHTS BORO	SMRSA	5196	5227	5360	5390
TINTON FALLS BORO	TRWRA/TOSA/TNSA	11960	15053	22610	23390
UNION BEACH BORO	BRSA	6575	6649	6980	7060
UPPER FREEHOLD TWP	Allentown WWTP/DGW	32	39	40	110
WALL TWP	TNSA/SMRSA/MRRSA	22855	25261	30720	30720
WEST LONG BRANCH BORO	LBSA/TRWRA	8192	8258	8520	8520

Total Population Served/To Be Served		530226	560063	622530	640980
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Note: Colts Neck Township, Millstone Township and Upper Freehold Township are primarily ISSDS areas. Service is limited to special locations or no service is available.

Summary of Wastewater Flows to Regional Facilities

Wastewater Treatment Plant (WWTP)	Reported 1995 Flow	Reported 2002 Flow	Estimated Flow at 2022	Estimated Flow at Build-Out*
Allentown Borough WWTP	0.18	0.18	0.19	0.23
Asbury Park Water Quality Control Facility	2.89	2.26	2.90	2.92
BRSA	8.51	7.80	10.76	13.85
LBSA	4.28	4.48	4.48	4.59
MRRSSA	5.54	6.26	8.73	17.18
Roosevelt Borough WWTP	0.20	No Report	0.21	0.54
SMRSA	4.34	5.54	5.72	6.05
TOMSA	8.58	7.14	10.41	11.30
TNSA	5.12	No Report	6.37	10.86
TOSA	4.63	4.14	5.48	8.13
TRWRA	9.19	No Report	10.83	14.98
WMUA	4.97	5.11	7.60**	8.60***

*Estimated build-out flow includes 10% I/I or Authority I/I estimates

**Estimated flow to 2025

***Build-out estimated using 2005 data

MUNICIPAL ZONING SCHEDULES

Aberdeen

Zone/District Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-100	Detached Single Family	10,000 sf				25%	400-5	3511	SF-10	
	R-75	Detached Single Family	7,500 sf				25%	400-5	3511	SF-05	
	R-70	Detached Single Family	7,500 sf	2.6du/gac			25%	20-1992	3511	SF-05	
	PC	Detached Single Family	7,500 sf				30%	400-5	3511	SF-05	
	R-60	Detached Single Family	6,000 sf				32%	400-5	3511	SF-05	
	R-50	Detached Single Family	5,000 sf				33%	400-5	3511	SF-05	
Multi Family Residential	RA (Residential Ag)	w/ public sewage w/o public sewage	20,000 sf 40,000 sf				12% 15%	400-4 400-4	3511 3511	SF-20	
	RA/PRD	Detached Single Family Residential Developments	20,000 sf				15%	400-40	3511	MF-08	
	APT/TH	Garden Apartments Townhouses		8.5du/gac 10du/gac 8du/gac		65%		400-8 400-8	3511 3511	MF-08	
	ARAH	Age Restricted affordable	13.5 ac	6du/lac				12-2002	4874	MF-0	
	PAC RP (redev plan)	Crystal Lake		5.28 du/lac (240 du max) 4.29 du/lac (470 du max)				16-2005	5470	MF-0	
	TH	Townhouses	7,500 sf				25%	20-1992	3511	MF-0	
	OR (Office-Residential)	Office						400-11 400-11	3511 3511	MU-0	
	CR (Conservation Rec.)	Detached Single Family Detached Single Family Marinas, Restaurants & Rec.	7,500 sf 40,000 sf 40,000 sf					12% 30%	16-2002 400-21	4927 3511	MU-0
	Commercial	NC (Neighborhood Comm)	Retail and Service	5,000 sf				40%	400-10	3511	C-0
		HC (Highway Comm)	Retail Service & Office Shopping Center	40,000 sf 120,000 sf				30%	400-13	3511	C-50
RC (Regional Comm)		Retail Service & Office	120,000 sf				30%	400-18	3511	C-50	
RO (Research/Office)		Office	120,000 sf				35%	400-23	3511	OB-01	
Industrial	MFG (Manufacturing)	Industry, Warehouse & Offices	120,000 sf				45%	400-27	3511	I-01	
	LI (Light Industrial)	Industry, Warehouse & Offices Luxury Apartments	80,000 sf 5000 sf				45% 75%	400-27 #1-2000	3511 3997	I-01	
Conservation	FP	Flood Plain						400-35	3511	Con/Rec	
Land Use Ordinance:	Sept. 7, 1993	rev. through 02/27/06 (recept 5662), last reviewed 07/07/06									
Zoning Map:	Feb. 1997										
Table Print Date:	1/24/2011										

Allenhurst

Zone/District Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Multi Family Residential	R-1	Attached Single Family Detached Single Family	14,000 sf	3.11 du/ac						MF-0
	R-2	Attached Single Family Detached Single Family	7,000 sf	6.22 du/ac						MF-0
Commercial	C-1	Retail and Office					80%			C-0
	C-2	Retail, Office & Laboratory					80%			C-0
	C-3	Retail and Office					80%			C-0
Business	B-1	Retail, Service & Office					80%			C-0
	B-2	Office/Business					80%			OB-0
<i>Note: Items in red were interpolated from regs in the ordinance.</i>										
Land Use Ordinance:		26-Jun-79 rev. through 12/28/04 (recpt. #5295), last reviewed 04/20/06								
Zoning Map:		4-May-99								
Table Print Date:		1/24/2011								

Allentown

Zone/District Name	Zone ID	Principle Use	Min. Lot Area (11050 sf) (11050 sf)	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family	R-2A	Detached Single Family Home Professional Office	(11050 sf) (11050 sf)				50%	codified codified		SF-10
Multi-Family	R-1	Detached Single Family Two Family	(11050 sf) (11050 sf)				50%	codified codified		MF-0
	R-2B	Detached Single Family Home Professional Office	(13000 sf) (11050 sf)					codified codified		MF-08
Mixed Use	MFR	Planned Retirement Comm. Garden Apartments	10 ac 10 ac	10 du/ac 10 du/ac		20%		codified codified		MF-08
	B-D	Retail, Service and Office One/Two Family	(11050 sf) (11050 sf)				no reg	codified codified		MU-0
Land Use Ordinance:	12/26/1978	amended through 09/12/2000 (recpt #4183), last reviewed 09/09/06								
Zoning Map:	Aug. 1979									
Table Print Date:	12/12/2006									

Atlantic Highlands

Zone/District Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-1	Detached Single Family	7,500 sf			50%	35%	1993		SF-05
	R-2	Detached Single Family	15,000 sf			40%	20%	1993		SF-10
	R-3	Detached Single Family	30,000 sf			30%	12%	04-2003	4972	SF-20
Multi Family Residential	RTH	Multi Family Residential Townhouses		8du/gac		60%	20%	1993		MF-0
	SC	Senior Citizen Residential		8du/gac		60%	20%	1993		MF-24
	AH	Two-family Residential	6,000 sf			70%	20%	1993	5844	MF-08
	MF1	Multi Family Residential Townhouses	40,000 sf	16du/gac		45%	20%	1993		MF-15
	MF2	Multi Family Residential Townhouses	40,000 sf	16du/gac		45%	20%	1993		MF-15
Mixed-Use Commercial	OR	Office-Residential	10,000 sf	25du/gac		40%	20%	1993		MF-24
	HBD (Historic Business)	Retail and Offices	4,000 sf			70%	20%	1993		MU-0
	CBD (Central Business)	Retail, Offices & Services	10,000 sf			90%	80%	1993		C-0
	HB (Highway Business)	Retail, Offices & Services	10,000 sf			80%	50%	1993		C-0
Industrial Conservation	WB (Waterfront Business)	Retail and Services	40,000 sf			70%	25%	1993		C-12.5
	LI	Light Industrial	40,000 sf			70%	30%	1993		C-12.5
	MR	Marine Recreation	40,000 sf			70%	25%	1993		OB-0
	MC	Marine Conservation	n/a			70%	25%	1993		C-12.5
	PB	Public Open Space	n/a					1993		Con/Rec
Land Use Ordinance:	3-Nov-93	rev. through 09/20/06 (recpt 5844), last reviewed 12/12/06								
Zoning Map:	18-Jun-93									
Table Print Date:	12/12/2006									

Belmar

Zone/District Name	Zone ID	Principle Use	Min. Lot Area	Corner Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-100	Single Family	10,000 sf	10,000 sf			40%	20%	1992		SF-10	
	R-75	Single Family	7,500 sf	9,000 sf			50%	25%	2000-15	4247	SF-05	
	R-70	Single Family	7,000 sf	8,400 sf			50%	25%	1992		SF-05	
	R-50	Single Family	5,000 sf	6,000 sf			55%	30%	1992		SF-05	
	R-1-50	Single Family	5,000 sf	6,000 sf			55%	30%	2000-15	4247	SF-05	
	R-40	Single Family	4,000 sf	5,500 sf			55%	30%	2000-15	4247	SF-0	
	R-36	Single Family	3,600 sf	4,950 sf			55%	30%	1992		SF-0	
	R-2-50	Two Family	5,000 sf	6,000 sf			55%	30%				
	CBD-1	Retail, Service & Office	7,500 sf	7,500 sf		2.00	100%	80%	1992			C-0
	CBD-2	Retail, Service & Office	7,500 sf	7,500 sf		0.40	80%	50%	1992			C-0
Commercial	B-C	Beachfront Commercial	7,500 sf	7,500 sf		0.40	80%	50%	2000-15	4247	C-0	
	MC-1	Marine Commercial	20,000 sf	20,000 sf		0.30	80%	50%	1992		C-12.5	
Mixed Use	MC-2	Marine Commercial	10,000 sf	10,000 sf		0.30	80%	50%	1992		C-0	
	PO-75	Office 2nd Floor Residential	7,500 sf	7,500 sf		0.40	80%	50%	11/28/2001	4981	MU-0	
Land Use Ordinance:	8/28/2002	rev. through 07/28/04 (recpt 5217), last reviewed 12/12/06										
Zoning Map:	12/29/1992											
Table Print Date:	12/12/2006											
<i>Notes: As per ordinance 2000-15, R-2-40 was eliminated and redesignated as R-40. R-2-50 appears to have previously been changed to R-1-50 and by Ord. 2000-15, most, if not all, was redesignated as R-50. Revised schedule (04/01) included regs again. MF-1 and MF-2 zones were eliminated and redesignated as R-75. PB is an overlay zone. PO-75 appeared in 11/01 revision.</i>												

Brielle

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Corner Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-1	Detached Single Family	40,500 sf				20%		# 8/23/93	3427	SF-20
	R-2	Detached Single Family (Cluster)	30,000 sf				20%				
	R-2	Detached Single Family	15,000 sf	15,625 sf			20%		# 8/23/93	3427	SF-10
	R-3	Detached Single Family (Cluster)	11,250 sf	11,700 sf			20%				
	R-3	Detached Single Family	11,250 sf	12,500 sf			20%		# 8/23/93	3427	SF-05
	R-4	Detached Single Family	5,000 sf	7,500 sf			20%		# 8/23/93	3427	SF-05
Multi Family Residential	R-5	Garden Apartments	8 acres		6 du/ac		20%		# 8/23/93	3427	MF-0
	R-6	Townhouses	2 acres		6 du/ac		20%		# 8/23/93	3427	MF-0
Commercial	C-1	Retail and Service	7,500 sf				25%		# 8/23/93	3427	C-0
		Professional Offices	7,500 sf				25%				
		Municipal Uses	7,500 sf				25%				
	C-1A	Retail, Service, and Office	40,000 sf				75%		# 915	4664	C-12.5
	C-2	Retail and Service	7,500 sf	11,250 sf			25%		# 8/23/93	3427	C-0
		Marinas	7,500 sf	11,250 sf			25%				
		Retail and Service	7,500 sf	11,250 sf			20%				
	C-3	Business Offices	7,500 sf	11,250 sf			20%		# 8/23/93	3427	C-0
		Professional Offices	7,500 sf	11,250 sf			20%				
Land Use Ordinance:	Adopted: 8/23/1993	rev. through 06/26/06 (recept 5793), last reviewed 12/12/06									
Zoning Map Adopted:	11/21/2000										
Table Print Date:	12/13/2006										

Colts Neck

Zone/District Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	A-1 (Ag. Res.)	Detached Single Family	88,000 sf			20%	10%	1/25/2000	4507	SF-80
		Agriculture w/ Cluster Option	55,000 sf			20%	9%	1/25/2000 2002-10	4507 4886	
	A-2 (Ag. Res.)	Detached Single Family	40,000 sf			20%	10%	1/25/2000	4507	SF-40
		Agriculture	40,000 sf			20%	10%	1/25/2000	4507	
	A-3 (Village Res.)	Detached Single Family	30,000 sf			30%	10%	1/25/2000	4507	SF-20
		Agriculture	30,000 sf			30%	10%	1/25/2000	4507	
	AG (Agriculture)	Detached Single Family	10 acres			10%	5%	1/5/2001	4507	SF-80
		Agriculture	10 acres			10%	5%	1/5/2001	4507	
	A-5 (Ag. Res.)	Detached Single Family	220,000 sf			20%	10%	1/25/2000	4507	SF-80
		Agriculture	220,000 sf			20%	10%	1/25/2000	4507	
Multi Family Residential	A-4 (Mixed Housing)	Detached Single Family	5,000 sf		7 units per acre		40%	11/25/1999		MF-0
		Two Family	5,000 sf		9 units per acre		40%	11/25/1999	4507	
		Townhouses		6.5du/gac			40%	11/25/1999		
		Garden Apartments		6.5du/gac			40%	11/25/1999		
Commercial	A-6 (Courtyard Res)	Courtyard multi-fam dwellings	30 acres			20%	15%	2003-17	5113	MF-0
		Assisted Living Residential	10 acres			40%	15%	4/29/1997	4507	
		General Retail and Offices	40,000 sf		FAR=0.15	50%	15%	11/15/1998	4507	
Industrial	D (Light Industrial)	General Retail and Offices	45,000 sf		FAR=0.22	50%	15%	11/15/1998	4507	C-12.5
		General Retail and Offices	14,500 sf		FAR=0.15	50%	15%	11/15/1998	4507	
		Office, Research, Warehouse	10 acres		FAR=0.20	60%	20%	102-112	4507	
Office/Business	MP (Municipal Purpose)	Office, Research, Warehouse	10 acres		FAR=0.20	60%	20%	2000-12	4562	ROWL-10
		Municipal Offices & Facilities	n/a			n/a	n/a	102-110	4507	
Conservation	C (Floodplain District)	Public Use, Rec. & Agriculture	n/a				0%	1/25/2000	4507	Con/Rec
Land Use Ordinance:	Jan. 2001	amended through 12/30/03 (recpt 5113), last reviewed 12/13/06 (recpt 5878)								
Zoning Map:	9/27/1994	rev. through 09/21/06 (recpt 5838)								
Table Print Date:	12/13/2006									

Deal

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-1	Single Family Residential	18,750 sf			40%	20%	960	5592	SF-10
	R-2	Single Family Residential	18,750 sf			40%	20%	960	5592	SF-10
	R-3	Single Family Residential	12,500 sf			30%	20%	960	5592	SF-10
	R-4	Single Family Residential	none			40%	25%	960	5592	SF-0
Commercial	C-0	Retail, Service, and Office Professional Offices	none		8,000 cu ft in 42' height			960	5592	C-0
<p>Note: R-4 Zone has no minimum lot size regulation, however, the typical lot size is 5,000 sf.</p>										
<p>Land Use Ordinance: Adopted: 4/23/1985 rev. through 12/05 (recept 5592), as reviewed through 12/13/06 (recept 5592)</p>										
<p>Zoning Map: Adopted: 11/23/1983 rev. through 12/05 (recept 5592)</p>										
<p>Table Print Date: 12/13/2006</p>										

Eatontown

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-32	Single Family Residential	32,000 sf								
		Agriculture	3 acres				25%	codified		SF-20	
		Schools	5 acres								
		Places of Worship	80,000 sf								
	R-32FRD	Single Family Residential	32,000 sf								
		Detached Single Family	32,000/18,000 sf					25%	codified		SF-20
		Agriculture	3 acres								
		Schools	5 acres								
		Places of Worship	80,000 sf								
		Single Family Residential	20,000 sf					25%	codified		SF-20
R-20	Agriculture	3 acres									
	Schools	5 acres									
R-10	Cluster Development	25 acres									
	Single Family Residential	10,000 sf									
	Places of Worship	80,000 sf					25%	codified		SF-10	
	Schools	5 acres						16-84	918		
R-MLC	Nursing Homes	6 acres						17-2002	4851	SF-05	
	Single Family Residential	6,000 sf				25%					
R-10MIH	Single Family Residential	10,000 sf									
	Agriculture	3 acres					25%	codified		SF-0	
	Nursing Homes	5 acres									
	Mobile Homes	10 acres		6du/gac							
Multi Family Residential	Townhouses										
	Zero Lot Line Homes										
	Quadrplexes										
	Patio Homes										
	Senior Citizen Residential	5 acres		20du/gac							
R-32TH	Single Family Residential	10,000 sf									
	Garden Apartments	5 acres		12 du/ac							
R-20RSC	Single Family Residential	5 acres									
	Garden Apartments	10,000 sf		20du/gac							
R-10A	Single Family Residential	5 acres									
	Garden Apartments	10,000 sf		12 du/ac							
R-10B	Single Family Residential	10,000 sf									
	Garden Apartments	5 acres		12du/gac							
R-MC-AH	Single Family Residential	5 acres									
	Multi-fam Residential - Condos	7 acres		12 du/ac	120 dus	75	25%	16-2006	5685	MF-08	
R-TH/MLC	Townhouses	19 acres		6.1du/gac		50%	25%	31-2004	5281	MF-0	
	Townhouses	19 acres		4.75du/gac		40%	20%	09-2002	4786	MF-0	
Commercial	B-1	Retail and Service									
		Professional Offices	20,000 sf					codified			
		Regional Enclosed Shopping Ctr.									
		Child Day Care							16-92	3437	C-0

Industrial con't	M2	Manufacturing/Lt. Machinery Fabrication and Printing Warehouses Child Day Care	20,000 sf			30%	codified 16-92	3437	I-0
	M-B	Manufacturing/Lt. Machinery Fabrication Business and Professional Offices Warehouses Child Day Care	1 acre			30%	codified 16-92	3437	I-01
Conservation	P-1	Publicly owned land Residential Single Family	no regs 3 acres				codified		Con/Rec
	FP	Floodplain Overlay	see specific zones for regulations						-
	HD	Historic District Overlay	see ordinance for regulations						-
Land Use Ordinance:	Adopted 1/17/79	rev. through 12/06/06 (recpt 5906), last reviewed 12/13/06							
Zoning Map:	Adopted 1978 Amd. 2/7/2001								
Table Print Date:	1/24/2011								

Englishtown

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Multi Family Residential	AH	Two Family Residential	6,000 sf					16-2006	5844	MF-15	
	R-HD/AH	3-4 Family Residential High Density Residential	10,000 sf 10 ac	134 units	9 du/gac	40%		2002-09	5020	MF-08	
Mixed-Use	R-LD (Low Density)	Detached Single Family Professional Office - Wood Ave.	20,000 sf 20,000 sf			35%		94-01	3523	MU-0	
	R-MD (Medium Density)	Detached Single Family Professional Office - N/S Main St.	7,500 sf 7,500 sf			45%		94-01	3523	MU-0	
	R-PD (Planned Develop.)	Detached Single Family Professional Office	20,000 sf 20,000 sf			35%		94-01	3523	MU-0	
	R-APD	Townhouses* Affordable Plan. Res. Dev.	800 sf* 10 ac	7 du/gac 40 units	5 du/gac	35%	15%	2002-08 90-09	5019 2172	MU-0	
	C-1 (Central Comm.)	Retail, Service and Offices Retail, Service and Offices	5,000 sf 20,000 sf			75%		90-09	2172	MU-08	
	C-2 (General Comm.)	Detached Single Family Retail, Service and Offices	40,000 sf 20,000 sf			60%		90-09	2172	MU-0	
	Conservation	Detached Single Family	20,000 sf			35%		91-05	2340	Com/Rec	
	Industrial	CON I (Industrial)	Open Space Research, Warehouse, Assembly	n/a 60,000 sf			0%		90-09	2172	ROWL-0
	<p>Note: *if a townhouse has two stories, the minimum lot area is 1000 sf.</p>										
	Land Use Ordinance:	9/25/1990	rev. through 08/30/2006 (recept 5844), last reviewed 12/13/06 (recept 5846 for pending ord 2006-21 not yet adopted)								
Zoning Map:	12/1/93	rev. through 08/30/2006 (recept 5844)									
Table Print Date:	12/13/2006										

Fair Haven

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Corner Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-40	Detached Single Family Community Center	40,000 sf	40,000 sf			30%	20%	12-98	4377	SF-40	
	R-30	Detached Single Family Community Center	30,000 sf	33,500 sf			30%	20%	12-98	4377	SF-20	
	R-20	Detached Single Family Community Center	20,000 sf	25,000 sf			35%	20%	B-434A	4669	SF-20	
	R-15	Detached Single Family Community Center	15,000 sf	18,000 sf			35%	25%	B-434A	4669	SF-10	
	R-10A	Detached Single Family Community Center	10,000 sf	11,500 sf			40%	25%	B-434A	4669	SF-10	
	R-10B	Detached Single Family Community Center	10,000 sf	11,500 sf			45%	25%	B-434A	4669	SF-10	
	R-10	Detached Single Family Community Center	10,000 sf	11,500 sf			45%	25%	B-434A	4669	SF-10	
	R-7.5	Detached Single Family Community Center	7,500 sf	10,000 sf			45%	25%	B-434A	4669	SF-05	
	R-5	Detached Single Family Community Center	5,000 sf	7,000 sf			50%	30%	B-434A	4669	SF-05	
	Mixed-Use	B-1	Detached Single Family Retail and Service Business Offices Professional Offices Municipal Facilities	5,000 sf	7,000 sf			80%	50%	12-98	4377	MU-08
B-2		Detached Single Family Retail and Service Business Offices Professional Offices Municipal Facilities	7,500 sf	10,000 sf			70%	30%	12-98	4377	MU-0	
PB		Recreation Facilities Municipal Facilities Parks			No Regulations					12-98	4377	Cont/Rec
Conservation - Recreation												
Land Use Ordinance:	Adopted 12/14/1998	revised through 01/24/05 (recpt 5638), last reviewed 12/13/06 (recpt 5716)										
Zoning Map:	Adopted: 12/14/1998											
Table Print Date:	12/13/2006											

Farmingdale

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B. C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-6	Single Family Residential	6,000 sf	21 d us max	1.4 du/ac	45%	40%	04-07	5854	SF-05
	R-15	Single Family Residential	15,000 sf			45%	20%	1997	3520	SF-10
	R-40	Single Family Residential	40,000 sf			45%	20%	1997	3520	SF-40
Multi Family Residential	R-7.5	Single Family Residential	7,500 sf			55%	25%	1997	3520	MF-0
		Two Family Residential	10,000 sf			55%	25%			
		Three Family Residential	15,000 sf			55%	25%			
Mixed-Use	R-10	Single Family Residential	10,000 sf			50%	20%	1997	3520	MF-0
		Two Family Residential	12,000 sf			50%	20%			
		Three Family Residential	18,000 sf			50%	20%			
Commercial Industrial	VC (Village Comm.)	Single Family Residential	7,500 sf			55%	25%	1997	3520	MU-0
		Two Family Residential	10,000 sf			55%	25%			
		Three Family Residential	15,000 sf			55%	25%			
		Retail and Offices	7,500 sf			75%	25%			
Commercial Industrial	GC (General Comm.)	Retail, Service, and Offices	7,500 sf			75%	25%	1997	3520	C-0
	LI (Light Industrial)	Research, Warehouse & Fab.	20,000 sf			80%	40%	1997	3520	I-0
Land Use Ordinance:	1/21/1997	revised through 09/17/06 (5854), last reviewed 12/13/06 (recpt 5854)								
Zoning Map:	11/16/1996									
Table Print Date:	12/13/2006									

Freehold Borough

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-10	Detached Single Family	12,000 sf				20%	codified	5237	SF-10
	RPO	Det SF (Home Off cond use)	8,400 sf				25%	codified	5717	SF-05
	R-7	Detached Single Family	8,400 sf				25%	codified	5237	SF-05
	R-6	Detached Single Family	7,200 sf				25%	codified	5237	SF-05
	R-5	Detached Single Family	6,000 sf				25%	codified	5237	SF-05
Multi Family Residential	R-4	Detached Single Family	4,800 sf				30%	codified	5237	SF-0
	A (Apartment)	Detached Single Family	6,000 sf	8 du/ac			25%	codified	5237	MF-0
Commercial	T-H (Townhouse)	Apartment	12,000 sf				25%	codified	5237	MF-0
	PRD (Planned Residential development)	Townhouses	5 acres	8 du/gac			25%	codified	5237	MF-0
	B-2 (General Comm.)	Detached Single Family	8,000 sf	7 du/gac			25%	codified	5237	C-0
Mixed-Use	B-2A	Retail and Service	5,000 sf				100%	codified	5237	C-0
	B-2B	Retail, Office & Service	5,000 sf				85%	codified	5237	C-0
Office	SRO (Spec Off-Retail)	retail, service, office, hotel	25 acres		0.30	65%		codified	5717	C-50
	ROR (Res/Comm. Revdevelopment)	Townhouses Garden Apartments Professional Offices & Comm	no regs	du=600 sf com=30,000 sf m/h	no regs	no regs		codified	5237	MU-0
Recreation	B-1	Office and Service	8,000 sf				25%	codified	5237	OB-0
	B-1A (Limited Prof. Office)	Professional Offices	7,200 sf				25%	codified	5237	OB-0
Industrial	REC (Recreational)	Recreational Uses	1 ac				25%	codified	5237	CON/REC
	MCM	Commercial Manufacturing	40,000 sf			30%		codified	5237	I-0
		Research, Manufac, Storage	40,000 sf			30%		codified	5717	I-0
Land Use Ordinance: Adopted 06/07/04, revised through 12/31/05 (recept 5717), last reviewed 12/13/06 (recept 5789)										
Zoning Map: Adopted 01/2003										
Table Print Date: 12/13/2006										

Commercial	B-10	Retail, Service, and Office Shopping Centers Research Laboratories	10 acres	10 acres	10 acres	0.15	60%	15%	05-32	5532	C-50
			40,000 sf	10 acres			100%	15%			
Commercial	B-2	Retail, Service, and Office Building Material Supply and Sales Animal Hospitals and Shelters	20,000 sf	25,000 sf	0.20	65%	20%	code sup #22	5047	C-12.5	
	RMZ-1	Shopping Centers Retail, Service, and Office Restaurants	40,000 sf 50 acres 50 acres	50 acres 50 acres 50 acres	0.30 0.30 0.30	65% 65% 65%	25% 25% 25%	04-09	5145	C-50	
	RMZ-2	Hotels and Convention Centers Retail and Office Theatres and Assembly Halls Hotels and Convention Centers Colleges, Busin. & Tech. Schools	8 acres	8 acres	0.20	65%	20%	04-09	5145	C-50	
	RMZ-2A	Hotel, Conv Center & Service	8 acres	8 acres	0.15	60%	15%	04-09	5145	C-50	
	RMZ-3	Retail and Office Restaurants Municipal and Gov. Facilities	3 acres	3 acres	0.20	65%	20%	04-09	5145	C-50	
	VC	Retail and Office Restaurants Hotels and Motels	10 acres 10 acres 10 acres	10 acres 10 acres 10 acres	0.18 0.18 0.18	60% 60% 60%	15% 15% 15%	05-12	5403	MU-0	
	HC	Residential Development Restaurants Farm Stands Single Family Dwellings	30,000 sf 80,000 sf 80,000 sf	35,000 sf 80,000 sf 80,000 sf	0.10	15%	10%	code sup #22	5047	MU-0	
	PUD	Semi-Attached Single Family Retail, Service, and Office Recreation Centers	3,500 sf 3,500 sf			15%	10%	code sup #22	5047	MU-0	
	M-1	Agriculture Offices Indust., Manufact., and Research Auto Body Repair Shops	5 acres	5 acres	0.25	65%	25%	05-29	5513	I-01	
	M-2	Agriculture Offices Indust., Manufact., and Research Auto Body Repair Shops	2 acres	2 acres	0.25	65%	25%	05-12	5513	I-01	
LI	Research Laboratories Warehouse and Manufacturing Profes., Exec., & Admin. Offices	40,000 sf	45,000 sf	0.25	65%	25%	code sup #22	5047	I-0		
LI-3	Research Laboratories Warehouse and Manufacturing Profes., Exec., & Admin. Offices	3 acres	3 acres	0.25	65%	25%	05-12	5513	I-01		
ROL	Research, Office & Labs Corporate and Exec. Offices	40 acres	40 acres	0.15	50%	15%	04-35	5229	ROWL-10		
IRC	Parks, Playgrounds & tennis courts	5 acres	5 acres	0.10	15%	10%	code sup #22	5047	CON/REC		
Land Use Ordinance:	Adopted 1982	revised through 07/05/06 (recept 5772). Last reviewed 12/13/06 (recept 5893)									
Zoning Map:	Adopted: 9/24/84	revised through 09/19/06 (recept 5840)									
Table Print Date:	12/13/2006										

Hazlet

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-125	Single Family Residential	18,750 sf				20%	codified	5124	SF-10
		Schools & Twp. Recreation Agriculture	40,000 sf				15%			
	R-100	Single Family Residential	12,500 sf				20%	codified	5124	SF-10
		Schools & Twp. Recreation Agriculture	40,000 sf				15%			
	R-70	Single Family Residential	7,000 sf				25%	codified	5124	SF-05
		Schools & Twp. Recreation Agriculture	40,000 sf				20%			
	R-50	Single Family Residential	5,000 sf				30%	codified	5124	SF-05
		Schools & Twp. Recreation Agriculture	40,000 sf							
	MHD	Mobile Homes		8du/gac			30%	codified	5124	SF-0
Multi Family Residential	MDR	Townhouses		8du/gac			30%	codified	5124	MF-0
		Single Family Residential Semi-Detached Single Family	12,500 sf							
	SC-2	Senior Citizen Residential		16du/gac			20%	codified	5124	MF-15
		Senior Citizen Residential		60du/gac				20%	codified	5124
	PRD	Townhouses		7du/gac		60%	25%	codified	5124	MF-0
		Patio Homes	3,200 sf	5du/gac		60%	35%			
		Multi Family Residential		7du/gac		60%	25%			
		Detached Single Family (Cluster)	3,200 sf	5du/gac		60%	35%			
	PAC	Townhouses		9du/gac			25%	codified	5124	MF-08
		Multi Family Residential		9du/gac		60%				
		Patio Homes		9du/gac						
Commercial	B-N1	Shopping Centers Retail, Office, and Service	125,000 sf 30,000 sf				25% 10%	codified	5124	C-12.5
		Shopping Centers Business	200,000 sf 40,000 sf				25% 15%	codified	5124	C-12.5
	B-H	Retail & other Offices	40,000 sf 20,000 sf				25% 25% 30%	codified	5124	C-12.5
		Shopping Centers	400,000 sf				25%			
		Multi Tenant Business Uses	100,000 sf							
	I-M	Marine Business Uses	20,000 sf				25%	codified	5124	C-12.5
		Boating Clubs Parking	15,000 sf 40,000 sf				25% 20%			
	C-D	Retail & Service Offices	10 ac			75%	25% 30%	codified	5124	C-50
		Retail, Office, and Service Prof., Busi., and Ind. Offices Research Government Buildings	3 acres					35%	codified	5124

Office con't.	BP-2	Prof., Busi., and Ind. Offices Research Government Buildings Offices Research	30,000 sf				35%	codified	5124	OB-01
	BP-3		20,000 sf 40,000 sf				35%	codified	5124	OB-01
Industrial	I-A	Light Manufacturing Research Offices Self-storage	20,000 sf				30%	codified	5124	I-0
	I-A-1	Light Manufacturing Research Offices Self-storage Sexually oriented businesses	20,000 sf				30%	codified	5124	I-0
			40,000 sf				25%			
Conservation	PC	Recreational Areas Landfill and Excavation Ops.	no. rsg. no reg				0% 0%	codified codified	226 226	Con/Rec
Land Use Ordinance: Adopted 01/15/04 (recept 5107), revised thru 08/02/05 (recept 5469), last reviewed 12/13/06 (recept 5631)										
Zoning Map: Adopted 09/16/1997, rev. through 01/25/05 (recept 5321)										
Table Print Date: 12/13/2006										

Highlands

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-1.01	Detached Single Family	5,000 sf			70%	30%	10/15/1997	3712	SF-05
		Schools	5,000 sf			70%	30%	10/15/1997	3712	
	R-1.02	Public Use	5,000 sf			70%	30%	10/15/1997	3712	SF-05
		Detached Single Family	7,500 sf			60%	25%	10/15/1997	3712	
	R-1.03	Schools	7,500 sf			60%	25%	10/15/1997	3712	SF-10
		Public Use	7,500 sf			60%	25%	10/15/1997	3712	
	R-B	Detached Single Family	14,000 sf			60%	25%	10/15/1997	3712	SF-05
		Schools	14,000 sf			60%	25%	10/15/1997	3712	
	WT-R	Public Use	14,000 sf			60%	25%	10/15/1997	3712	SF-05
		Detached Single Family	5,000 sf			60%	25%	10/15/1997	3712	
R-2.01	Schools	5,000 sf			60%	25%	10/15/1997	3712	SF-0	
	Public Use	5,000 sf			60%	25%	10/15/1997	3712		
R-2.02	Detached Single Family	3,750 sf			75%	33%	10/15/1997	3712	SF-0	
	Schools	3,750 sf			75%	33%	10/15/1997	3712		
MH	Public Use	3,750 sf		See 21.86.4b	75%	35%	10/15/1997	3712	SF-0	
	Existing Bungalow Colonies	4,000 sf			75%	33%	10/15/1997	3712		
Multi-Family Residential	R-2.03	Detached Single Family	4,000 sf			75%	33%	10/15/1997	3712	MF-08
		Two Family Residential	4,000 sf			75%	33%	10/15/1997	3712	
Mixed-Use	MF	Schools	4,000 sf			75%	33%	10/15/1997	3712	MF-08
		Public Use	4,000 sf			75%	33%	10/15/1997	3712	
Commercial	B-1	Existing Bungalow Colonies	5 acres	12 du/ac		50%	20%	10/15/1997	3712	C-0
		Mobile Homes	5,000 sf			75%	33%	10/15/1997	3712	
Commercial	B-2	Detached Single Family	7,500 sf	(11.6 du/ac)		75%	33%	10/15/1997	3712	C-0
		Two Family Residential	5,000 sf			75%	33%	10/15/1997	3712	
Commercial	B-3	Schools	5,000 sf			75%	33%	10/15/1997	3712	C-0
		Public Use	5,000 sf			75%	33%	10/15/1997	3712	
Commercial	B-3	Existing Bungalow Colonies	1 acre	14 du/ac		65%	45%	10/15/1997	3712	C-0
		Multi-Family Residential	1 acre			65%	45%	10/15/1997	3712	
Commercial	B-3	Public Use	1 acre			65%	22%	10/15/1997	3712	C-0
		Public Utilities	5,000 sf			75%	33%	10/15/1997	3712	
Commercial	B-3	Detached Single Family	5,000 sf	(17.4 du/ac)		75%	33%	10/15/1997	3712	C-0
		Two Family Residential	5,000 sf			75%	33%	10/15/1997	3712	
Commercial	B-3	Art, Handicraft Studios/Galleries	(20,000 sf)		FAR=60%	75%	33%	10/15/1997	3712	C-0
		Hotels, Motels, and Inns	(20,000 sf)			75%	33%	10/15/1997	3712	
Commercial	B-3	Commercial Recreation	(20,000 sf)			75%	33%	10/15/1997	3712	C-0
		Marinas	(20,000 sf)			75%	33%	10/15/1997	3712	
Commercial	B-3	Retail and Service	no regs		FAR=65%	80%	35%	10/15/1997	3712	C-0
		Bus, Prof. and Admin. Offices	no regs			80%	35%	10/15/1997	3712	
Commercial	B-3	Public Use	no regs			80%	35%	10/15/1997	3712	C-0
		Retail and Service	no regs			80%	35%	10/15/1997	3712	
Commercial	B-3	Bus, Prof. and Admin. Offices	no regs			80%	35%	10/15/1997	3712	C-0
		Hotels, Motels, and Inns	no regs			80%	35%	10/15/1997	3712	
Commercial	B-3	Public Utilities	no regs			80%	35%	10/15/1997	3712	C-0
		Hotels, Motels, and Inns	no regs			80%	35%	10/15/1997	3712	
Commercial	B-3	Bed and Breakfasts	no regs			80%	35%	10/15/1997	3712	C-0
		Commercial Recreation	no regs			80%	35%	10/15/1997	3712	

Holmdele

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-40A	Detached Single Family	43,000 sf	1 du/ac	0.8 du/ac		25%			SF-40
		Single Family Cluster	30,000 sf				25%	Codified		
		Agriculture	5 acres				15%			
		Public and Private Schools	43,000 sf				25%			
	R-40B	Detached Single Family	108,900 sf	0.4du/gac			15%			SF-80
		Single Family Cluster	43,000 sf	0.4du/gac			25%	Codified		
	R-4	Agriculture	5 acres				15%			SF-80
		Public and Private Schools	108,900 sf				15%			
	R-4H	Detached Single Family	4 acres				12%			SF-80
	R-4R	Agriculture	108,900 sf				15%	Codified		
	R-2H	Public and Private Schools	108,900 sf				15%			SF-80
		Clustered Residential	5 acres		FAR=0.20		30%	2006-19	5842	
	R-15	Non-Clustered Residential	20 ac max				25%	2005-32	5563	SF-80
		Detached Single Family	4 acres				12%			
R-40A(2)	Agriculture	108,900 sf				15%			SF-80	
	Public and Private Schools	4 acres				12%				
R-30SC	Detached Single Family	15,000 sf	2.5u/acre			20%			SF-10	
	Single Family Cluster	8,000 sf	2.5u/acre			15%				
R-40A(2)	Public and Private Schools	43,000 sf				25%			SF-10	
	Agriculture	5 acres				15%				
R-30SC	same as R-40A	4,000 sf	4 du/ac			same		Codified	SF-10	
	Mobile Homes	4,000 sf				22%		Codified		
Multi-Family Residential	R-11	Detached Single Family	11,000 sf	3u/acre			20%		MF-15	
		Detached Single Family (LIRPP)	7,000 sf	5u/acre			20%			
		Single Family Cluster	8,000 sf	3u/acre			15%			
		Townhouses	1,600 sf/unit	12u/acre			30%			
		Garden Apartments	n/a	16u/acre			22%			
		Patio Homes	1,600 sf/unit				30%			
		Duplexes	8,000 sf/duplex	12u/acre			30%			
		Quadplexes	15,000 sf/quadplex	14u/acre			30%			
		Public and Private Schools	43,000 sf				25%			
		Detached Single Family	30,000 sf	1.2u/acre			15%			
		Detached Single Family (LIRPP)	7,000 sf	5u/acre			20%			
		Townhouses	1,600 sf/unit	12u/acre			30%			
		Garden Apartments	n/a	16u/acre			22%			
		Public and Private Schools	43,000 sf				25%			
R-30	Detached Single Family	30,000 sf	1.2u/acre			15%		MF-15		
	Detached Single Family (LIRPP)	7,000 sf	5u/acre			20%				
R-30SC	Townhouses	1,600 sf/unit	12u/acre			30%		MF-15		
	Garden Apartments	n/a	16u/acre			22%				
R-30SC	Public and Private Schools	43,000 sf				25%		MF-15		
	Detached Single Family	30,000 sf	1.2u/acre			15%				
R-30SC	Detached Single Family (LIRPP)	7,000 sf	5u/acre			20%		MF-15		
	Single Family Cluster	20,000/100,000 sf	1.2u/acre			30%				
R-30SC	Townhouses	1,600 sf/unit	12u/acre			30%		MF-15		
	Garden Apartments	n/a	16u/acre			22%				

R-TH	Detached Single Family	15,000 sf	2.5u/acre					20%	MF-15
	Single Family Cluster	9,600 sf	2.5u/acre					15%	
R-30SC1	Townhouses	1,600 sf/unit	12u/acre					30%	MF-15
	Quadrplexes	15,000 sf/quadrplex	14u/acre					30%	
	Garden Apartments	n/a	16u/acre					22%	
	Senior Citizen Residential		12u/acre						
	Detached Single Family	30,000 sf						15%	
	Single Family Cluster	20,000/100,000 sf	1.2u/acre					30%	
	Townhouses	2 acres	4.5u/acre					30%	
R-TH1	Quadrplexes	15,000 sf/quadrplex	14u/acre					30%	MF-0
	Garden Apartments	2.5 acres	18u/acre					65%	
	Churches	43,000 sf						25%	
	Detached Single Family								
	Patio Homes	2 acres	4.4u/acre					40%	
M	Garden Apartments	1 acre	5.7u/acre					22%	MU-0
	Detached Single Family	15,000 sf	2.5u/acre					20%	
	Hospitals	5 acres					60%		
	Professional Offices	3 acres						60%	
	Agriculture	5 acres						15%	
	Medical Laboratories	3 acres						60%	
	Single Family Dwellings	30,000 sf						60%	
	Retail, Service, and Offices	30,000 sf						60%	
	Firehouses	30,000 sf						60%	
	Churches	30,000 sf						60%	
	Restaurants	30,000 sf						60%	
	Single Family Dwellings	30,000 sf						60%	
	Retail, Service, and Offices	30,000 sf						60%	
B-1	Firehouses	30,000 sf						60%	MU-0
	Churches	30,000 sf						60%	
	Child Care Centers	30,000 sf						60%	
	Assisted Living Residences	85,000 sf						50%	
	Retail, Service, and Offices	3 acres						50%	
	Agriculture	5 acres						15%	
	Banks	3 acres						20%FAR	
	Child Care Centers	3 acres						20%FAR	
	Single Family Dwellings	30,000 sf						50%	
	Professional and Business Offices	30,000 sf						45%	
TMHO-3	Agriculture	30,000 sf						45%	MU-0
	Child Care Centers	30,000 sf						45%	
	Prof. Exec., Eng., Sci. Offices	5 acres						20%	
	Sci. Research Laboratories	5 acres						20%	
	Restaurants								
	Banks								
	Detached Single Family	5,000 sf							
	Assisted Living Residences	3 acres						20%	
	Retail and Service	5 acres						20%	
	O-30	Assisted Living Residences	30,000 sf						
Retail, Service, and Offices		3 acres						20%FAR	
Agriculture		5 acres						15%	
Banks		3 acres						20%FAR	
Child Care Centers		3 acres						20%FAR	
Single Family Dwellings		30,000 sf						50%	
Professional and Business Offices		30,000 sf						45%	
Agriculture		30,000 sf						45%	
Child Care Centers		30,000 sf						45%	
Prof. Exec., Eng., Sci. Offices		5 acres						20%	
LIH-PUD	Sci. Research Laboratories	5 acres						20%	MU-0
	Restaurants								
	Banks								
	Detached Single Family	5,000 sf							
	Assisted Living Residences	3 acres						20%	
	Retail and Service	5 acres						20%	

Howell Township

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Min. Corner Lot	Max. Density	Net Density	Max. I.S.	Max.B.C.	Ord. #	Receipt # / Composite Zone
Single Family Residential	ARE-1	Agriculture	40,000 sf						# 2/97	SF-40
	ARE-2	Detached Single Family	80,000 sf						# 2/97	SF-80
	ARE-3	Detached Single Family	120,000 sf						# 2/97	SF-80
	ARE-6	Agriculture	6 acres						# 2/97	SF-80
	R-2	Detached Single Family	20,000 sf						# 2/97	SF-20
	R-3	Agriculture	15,000 sf						# 2/97	SF-10
	R-6	Detached Single Family	12,000 sf		0.65 du/gac		60%*	35%*	#03/37	SF-10
	R-50	Detached Single Family	5,000 sf						# 2/97	SF-05
	MHP	Mobile Home Parks	3,500 sf						# 2/97	SF-0
	RRC	Agriculture	15,000 sf						# 2/97	SF-10
	ARE-C	Detached Single Family	15,000 sf			2.5 du/ac	25%	10%	# 2/97	SF-40
	ARE-NRW	Recreational/Res. Communities	10,500 sf						# 2/97	SF-10
	PRC	Detached Single Family	12,500 sf						# 2/97	SF-10
	R-4	Detached Single Family	7,200 sf	9,600 sf	0.4 du/ac	2.25 du/gac	45%**	35%**	# 02-7	SF-05
	R-5	Attached Single Family	10,000 sf			7-12 du/ac			# 2/97	MF-08
	ML7	Garden Apartments	10,000 sf						# 2/97	MF-0
	NC	Age Restricted Multi-family			100 du max	7 du/gac	25%	15%	#03/37	MF-0
	HC	Townhouses			7 du/gac	12 du/ac	40%		# 2/97	MF-0
	ML7	Garden Apartments			7 du/gac		40%		# 2/97	C-12.5
	NC	Retail Services, and Offices	15,000 sf				70%		# 2/97	C-12.5
	HC	Retail Services, and Offices	40,000 sf				70%		# 2/97	C-50
	HD-1	Retail Services, and Offices	80,000 sf				70%		# 2/97	OB-01
	HD-2	Offices	80,000 sf				70%		# 2/97	OB-01
	SED	Offices and Warehouses	120,000 sf				65%		# 2/97	ROWL-0
	LC/OS	Open Space Conservation	5 acres		0 du/ac		0%			Con/Rec

NOTE: *The R-6 Zone requires 60% of the total tract be set aside for open space. The impervious and building coverages relate only to the individual residential lots. **The PRC Zone requires 30% of the total tract be set aside for recreation/open space for tracts between 100 & 200 acres. Tracts over 200 acres require a 50% set aside. The impervious and building coverages relate only to the individual residential lots.

Land Use Ordinance:	6/27/1988	rev. through 05/17/05 (recept 5442), last reviewed 12/13/06 -pending ordinances 06-48 (recept 5887) & 06-49 (recept 5888), not yet adopted
Zoning Map:	6/12/1995	
Table Print Date:	12/13/2006	

Interlaken

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-A	Single Family Dwellings Public Parks and Playgrounds Municipal Use	15,000 sf			50%		350	3698	SF-10
	R-B	Single Family Dwellings Public Parks and Playgrounds Municipal Use	12,000 sf			50%		350	3698	SF-10
Land Use Ordinance:	Adopted 8/11/97 (recpt 3698), last reviewed 12/13/06									
Zoning Map:	Adopted 8/11/97									
Table Print Date:	12/13/2006									

Keyport

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	RA	Detached Single Family	7,500 sf			60%	40%	22/03	5055	SF-05
		Churches	15,000 sf			60%	40%	12/92	3424	
		Schools	15,000 sf			60%	40%	12/92	3424	
Multi-Family Residential	RA(PRD)	Detached Single Family	7,500 sf			60%	40%	22/03	5055	SF-05
		Churches								
		Schools								
Multi-Family Residential	RB	Detached Single Family	7,500 sf			60%	40%	4-05	5404	SF-05
		Churches								
		Schools								
Multi-Family Residential	RC	Detached Single Family	7,500 sf			60%	40%	4-05	5404	MF-08
		Two Family Residential	7,500 sf			60%	40%	12/92	3424	
		Churches	5,000 sf			60%	40%	12/92	3424	
Commercial	NC	Retail and Service	7,500 sf			90%	75%	4-05	5404	C-0
		Business and Professional Offices								
		Retail and Service								
Commercial	GC	Business and Professional Offices				90%	85%	12/92	3424	C-0
		Prof., Bus., and Tech. Schools								
		Department Stores								
Commercial	GMC	Retail and Service								C-0
		Business and Professional Offices								
		Prof., Bus., and Tech. Schools								
Commercial	HC	Department Stores	10,000 sf			90%	35%	12/92	3424	C-0
		Retail and Service								
		Business and Professional Offices								
Industrial	LI	Hotels and Motels	10,000 sf			90%	35%	12/92	3424	C-0
		Restaurants								
		Storage and Warehouses								
Industrial	I	Assembly	12,500 sf			90%	50%	12/92	3424	I-0
		Research Facilities and Labs								
		Boat Yards/Boat Building Fac.								
Industrial	I	Light Manufacturing	15,000 sf			90%	50%	12/92	3424	I-0
		Manufacturing/Lt. Machinery								
		Fabrication and Processing								
Industrial	I	Research Facilities and Labs				90%	50%	12/92	3424	I-0
		Boat Yards/Boat Building Fac.								
		Boat Yards/Boat Building Fac.								
Land Use Ordinance:	Adopted 7/10/90	revised 04/05/05 (recpt 5404), last reviewed 12/13/06 (recpt 5446)								
Zoning Map:	Adopted 6/12/90									
Table Print Date:	12/13/2006									

Lake Como

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Corner Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	AA Residential Zone	Detached Single Family	6,000 sf	8,000 sf					Codified	3290	SF-05	
	A Res Identical Zone	Public Use							Codified	3290	SF-05	
	B Residential Zone	Detached Single Family	5,000 sf						Codified	3290	SF-05	
		Public Use	4,000 sf						Codified	3290	SF-05	
Multi-Family Residential	Garden Apt. Zone	Detached Single Family	6,000 siff	8,000 sf					Codified	3290	MF-15	
		Garden Apartments	1 acre		16du/gac				Codified	3290	MF-15	
Mixed-Use	A Business/Garden Apt. Zone (overlay)	GAZ uses	1 acre		16 du/gac				Codified	3290	MU-15	
	A Business Zone	ABZ uses	7,000 sf						70%			
		Detached Single Family							70%			
		Shopping Center							70%			
	B Business Zone	Retail, Service, and Offices		7,000 sf					70%		3290	MU-0
		Municipal Buildings							70%			
		Restaurants										
Industrial	Manufacture Zone	Detached Single Family										
		Shopping Center	7,000 sf									
		Municipal Buildings										
		Restaurants										
		Fabrication and Assembly Storage/Warehouses	25,000 sf									
		Lumber Yards										
Land Use Ordinance:	Adopted 1/16/1979, (recept 3290), last reviewed 12/13/06 - pending stormwater ordinance (recept 5456) not yet adopted											
Zoning Map:	Adopted 8/1961											
Table Print Date:	12/13/2006											

Little Silver

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone		
Single Family Residential	R-1	Detached Single Family	60,000 sf			25%	25%	6/10/2002	4827	SF-40		
	R-1A	Detached Single Family	40,000 sf			25%	25%	6/10/2002	4827	SF-40		
	R-2	Detached Single Family	25,000 sf			25%	18%	8/2/2004	5202	SF-20		
	R-3	Detached Single Family	20,000 sf			25%	18%	8/2/2004	5202	SF-20		
Multi-Family Residential	ARAH	Townhomes/Garden Apts	14 ac	39 du max	2.8 du/ac			8/21/2006	5843	MF-0		
	R-3A	Detached Single Family	20,000 sf				25%	6/10/2002	4827	MF-0		
	TH-1	Single Family Court Homes	2,800/5,250 sf				40%					
		Municipal Buildings					15%		6/10/2002	4827	MF-0	
TH-2	Municipal Buildings					15%						
	Municipal Buildings					25%		6/10/2002	4827	MF-0		
PRD		Detached Single Family	60,000 sf			25%	30%					
		Patio Homes/Zero Lot Line	4,000 sf				50%					
		Townhouses										
		Garden Apartments										
		Quadruplexes										
Commercial		Semi-Detached Dwellings										
		Retail and Service										
		Business and Professional Offices										
		Municipal Buildings	5,000 sf					FAR =30%	6/10/2002	4827	C-0	
		Restaurants										
		Business and Professional Offices										
		Restaurants										
		Municipal Buildings	5,000 sf						FAR =30%	6/10/2002	4827	C-0
		Warehouses										
		Warehouses										
Mixed-Use		Detached Single Family	40,000 sf									
		Business and Professional Offices						FAR =30%	6/10/2002	4827	MU-0	
P-1		Municipal Buildings										
		Municipal Buildings										
P-2		Detached Single Family	10,000 sf									
		Business and Professional Offices						FAR =30%	6/10/2002	4827	MU-0	
Industrial		Municipal Buildings										
		Municipal Buildings										
I-1		Light Manufacturing										
		Warehouse and Wholesale	20,000 sf					40%	6/10/2002	4827	I-0	
Conservation/Recreation		Sci. and Research Laboratories										
		Municipal Buildings										
MP-1		Municipal Facilities										
		Municipal Facilities										
MP-2		Municipal Facilities										
		Municipal Facilities										
Land Use Ordinance:	Adopted 6/10/2002 (recept 4827), revised through 8/21/06 (recept 5843), last reviewed 12/13/06											
Zoning Map:	Adopted 8/1984, amended 12/2/02 (4891)											
Table Print Date:	12/13/2006											

Loch Arbor

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R	Detached Single Family	7,500 sf			30%	30%	177	5137	SF-05
		Municipal Building	5,000 sf			30%	30%	156	5137	
Commercial	C	Retail and Service	5,000 sf			40%	40%	156	5137	C-0
		Restaurants	5,000 sf			40%	40%	156	5137	
		Offices	40,000 sf			30%	30%	156	5137	
		Beach House/Snack Bar	40,000 sf			30%	30%	156	5137	
Office	OP	General Offices	12,500 sf			18%	18%	196	5137	OB-0
		Professional Offices	12,500 sf			18%	18%	196	5137	
Conservation	B	Refreshment Stands				1500 sf	1500 sf	156	5137	Con/Rec
		Open Beach Area			1 per lot (x14)			156	260	
Land Use Ordinance: Adopted 1/19/79 (no rept), revised through 4/7/04 (recept 5137), last reviewed 12/13/06 (recept 5678)										
Zoning Map: Adopted 1/21/1972 Amd. 6/21/2000										
Table Print Date: 12/13/2006										

Long Branch

Zone District Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	FAR	Max IS	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-1	Single Family Residential	17,500 sf				35%		code	5016	SF-10	
	R-2	Single Family Residential	12,500 sf				35%		code	5016	SF-10	
	R-3	Single Family Residential	9,000 sf				35%		code	5016	SF-05	
	R-4	Single Family Residential	5,760 sf				40%		code	5016	SF-05	
Multi Family Residential	R-5 (1-4 family)	Single to Four Family Townhouses	6,000 sf	80 units			40%		code	5016	MF-08	
	R-7 (Riverfront Mix)	Single Family Residential Townhouses	30,000 sf	12 du/gac			35%		code	5016	MF-0	
Mixed-Use	BS (Beachfront South)	Mid-rise Residential	30,000 sf	6 du/gac			35%		code	5016	MF-24	
	BN (Beachfront North)	Residential & Entertainment		30 du/ac		1.00	50%	35%	code	5016	MU-08	
	C-2 (Office)	Single Family Residential Prof Offices & Services	10,000 sf				75%		code	5016	MU-0	
	C-4 Resort	Single Family Residential Townhouses	10,000 sf	6 du/gac			35%		code	5016	MU-0	
		Waterfront Mixed Res	2 ac	2 ac	30 du/ac			35%				
		Single to Four Family Professional Offices	9,000 sf	10 du/gac				35%				
		Professional Offices	9,000 sf	6 du/gac				35%				
		Townhouses	30,000 sf	6 du/gac				35%				
Commercial	R-8 (Boulevard Mix)	Townhouses Professional Offices	40,000 sf				40%		code	5016	MU-0	
	RC-2 (Riverfront)	Mixed Res - Mid-Rise Townhouses	2 acres	30 du/gac			35%	35%	code	5016	MU-0	
		Neighborhood Commercial	30,000 sf	6 du/gac				35%				
	S-1 (Office)	Single Family Residential Professional Offices	7,500 sf				35%		code	5016	MU-0	
	M (Medical)	Garden Apartments			1 du/3,100 sf	(14 du/ac)	60%	35%	code	5016	MU-08	
		Townhouses	60,000 sf		12 du/gac			35%				
		Hospital						50%				
		Professional Offices						50%				
	PVC (Pier Village Center)	Residential Commercial	11,250 sf	15 du/ac			1.00	75%		code	5016	MU-08
	RC-1 (Beachfront)	Mixed Res - Mid-Rise Townhouses	2 ac	30 du/ac				35%		code	5016	MU-24
		Professional Offices	30,000 sf	6 du/gac				35%				
	Industrial	C-1 (Central)	Commercial	40,000 sf				(100%)		code	5016	C-0
C-3 (Neighborhood)		Commercial					(100%)		code	5016	C-0	
BG (Broadway Gate)		Commercial/Retail				2.00			code	5016	C-0	
HC (Hotel Campus)		Hotel, Office & Services				2.00			code	5016	C-0	
S-2 (Oceanfront)		Eating & Drinking Estab							code	5016	C-0	
I		Industrial and Manufacturing	15,000 sf					40%	code	5016	I-0	
Industrial	HTLI (Hi-Tech/Lt. Ind.)	Light Industrial	40,000 sf				40%		code	5016	I-0	
	MB (Manufacturing)	Industrial and Manufacturing	15,000 sf				40%		code	5016	I-0	
Land Use Ordinance:		Codified Dec. 1, 2001 (rept 5016), last reviewed 12/13/06										
Zoning Map:		Adopted Dec. 1, 2001, and rev. through 12/9/02										
Table Print Date:		12/13/2006										

Manalapan

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-4	Detached Single Family	4,000 sf				50.0%			SF-0	
		Agriculture	4,000 sf				50.0%		Codified		
	R-5	Municipal Use	4,000 sf					50.0%			SF-05
		Detached Single Family	5,000 sf					50.0%			
		Planned Residential Developments	5,000 sf					50.0%			
		Agriculture	5,000 sf					50.0%		Codified	
	R-20	Municipal Use	5,000 sf					50.0%			SF-20
		Detached Single Family	20,000 sf					20.0%		Codified	
	R-30	Detached Single Family (Cluster)	50 acres		5du/gac			11.0%			SF-20
		Agriculture	20,000 sf					11.0%			
Municipal Use		20,000 sf					11.0%				
Detached Single Family		30,000 sf					11.0%		Codified		
R-40	Municipal Use	30,000 sf					11.0%			SF-40	
	Detached Single Family	40,000 sf					9.5%		Codified		
R-40/20	Agriculture	40,000 sf					9.5%			SF-40	
	Municipal Use	40,000 sf					9.5%				
	Detached Single Family	40,000 sf					9.5%		Codified		
	Detached Single Family (Cluster)	30 acres					15.0%				
R-AG	Detached Single Family	40,000 sf					7.5%			SF-80	
	Agriculture	120,000 sf					7.5%		Codified		
R-AG/4	Municipal Use	120,000 sf					7.5%			SF-80	
	Detached Single Family	160,000 sf					10.0%				
	Detached Single Family (Cluster)	60,000 sf		0.25du/ac			10.0%				
	Municipal Use	160,000 sf					10.0%	2005-44	5586		
RE	Parks and Playgrounds	160,000 sf					10.0%			SF-80	
	Agriculture	160,000 sf					10.0%				
	Municipal Use	160,000 sf					7.5%				
	Detached Single Family	120,000 sf					7.5%		Codified		
R-R	Detached Single Family	80,000 sf					7.5%			SF-80	
	Agriculture	80,000 sf					7.5%				
	Municipal Use	80,000 sf					7.5%				
	Detached Single Family	120,000 sf		0.33du/ac			7.5%	2005-44	5586		
Multi-Family Residential	R-20/PD	Detached Single Family	20,000 sf				20.0%			MF-0	
		Planned Residential Developments	50 acres		5du/gac		7.5%				
	R-20/PRC	Agriculture	20,000 sf					7.5%			MF-0
		Municipal Use	20,000 sf					7.5%			
		Detached Single Family	20,000 sf					7.5%			
		Planned Retirement Community	25 acres		6du/gac			7.5%		Codified	
	R-TF/TH	Agriculture	20,000 sf					7.5%			MF-0
		Municipal Use	20,000 sf					7.5%			
		Detached Two Family	15 acres		5du/gac			20.0%			
		Townhouses	15 acres		5du/gac			20.0%			
GCRC	Agriculture	10,000 sf					20.0%			MF-0	
	Municipal Use	10,000 sf					20.0%				
	Detached Single Family	40,000 sf					7.50%		Codified		
	Detached Age Restricted Housing	6,000 sf				60%		# 98-03			
ML-TH	Planned Residential Developments	40,000 sf					30%			MF-08	
	Agriculture	40,000 sf					9.50%				
	Municipal Use	40,000 sf					9.50%				
	Planned Residential Developments	10 acres		10 du/ac	0.5	65%	25%		Codified		
CD-Four Seasons	Single Family Residential	zone max=792 du					60%		# 04-32	MF-15	
	Townhouses @15.1 du/ac	zone max=546 du					35%		5277		
CD-Meadows	Single Family Residential	zone max=546 du					n/a		# 04-32	MF-0	
	Townhouses @6.4 du/ac	zone max=546 du					n/a		5277		

Mixed-Use	CD-Knob Hill	Single Family Residential	5,000 sf	5.6 du/ac		50%	35%	# 01-09	4685	MU-0
		Townhouses	n/a	7.3 du/ac		n/a	n/a			
		Multi-Family Residential	n/a	16.3 du/ac		n/a	n/a			
	RT	Shopping Centers	25 acres	16.3 du/ac	0.75		20%	Codified		MU-0
		Detached Single Family	20,000 sf				15.0%			
		Nursing Homes	40,000 sf				9.5%			
		Professional and Business Offices	40,000 sf				9.5%			
		Funeral Homes	40,000 sf				9.5%			
		Agriculture	40,000 sf				9.5%			
		Municipal Use	40,000 sf				9.5%			
	LB-T	Detached Single Family	40,000 sf			50%	18%			
		Professional and Business Offices	40,000 sf			50%	18%			
		Restaurants	40,000 sf			50%	18%	Codified		MU-0
		Animal Hospitals	40,000 sf			50%	18%			
		Agriculture	40,000 sf			50%	18%			
		Municipal Use	40,000 sf			50%	18%			
	OP-10/PRC-MLC	Detached Age Restricted Housing	6,000 sf	2.3 du/gac		60%	20%	# 98-04	3804	MU-0
		Planned Retirement Community	50 acres	2.3 du/gac		40%	20%			
	C-2M	Restaurants	4 acres		0.75	75%	18%	Codified		MU-08
		Professional and Business Offices	4 acres			75%	18%			
		Bars	4 acres			75%	18%			
		Banks	4 acres			75%	18%			
	C-3	Restaurants	40,000 sf			75%	18%			
		Bars	40,000 sf			75%	18%			
		Professional and Business Offices	40,000 sf		0.75	75%	18%	Codified		C-12.5
		Banks	40,000 sf			75%	18%			
		Motels	40,000 sf			75%	18%			
	C-1	Shopping Centers	15 acres		0.75	75%	20%	Codified		C-50
		Restaurants	15 acres			75%	20%			
		Professional and Business Offices	15 acres			75%	20%			
		Banks	15 acres			75%	20%			
	C-2	Restaurants	4 acres		0.75	75%	18%	Codified		C-50
		Bars	4 acres			75%	18%			
		Professional and Business Offices	4 acres			75%	18%			
		Motels	4 acres			75%	18%			
	LB-M	Professional and Business Offices	3 acres		0.5	50%	15%	Codified		C-50
		Animal Hospitals	3 acres			50%	15%			
		Banks	3 acres			50%	15%			
		Agriculture	3 acres			50%	15%			
		Lumber Yards	12 acres			50%	15%			
	LB-S	Professional and Business Offices	3 acres		0.5	50%	15%	Codified		C-50
		Animal Hospitals	3 acres			50%	15%			
		Agriculture	3 acres			50%	15%			
		Retail Food Stores	3 acres			50%	15%			
	LB-W	Professional and Business Offices	4 acres		0.75	75%	18%	Codified		C-50
		Animal Hospitals	4 acres			75%	18%			
		Agriculture	4 acres			75%	18%			
		Retail Food Stores	4 acres			75%	18%			
	VC	Restaurants	100 ac		0.75	75%	20%			
		Shopping Centers	100 ac			75%	20%	# 00-02	4072	C-50
		Professional and Business Offices	100 ac			75%	20%			
		Banks	100 ac			75%	20%			

Commercial

Manasquan

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone		
Single Family Residential	R-1	Detached Single Family	7,000 sf			35%	25%	1811-00	4022	SF-05		
	R-2	Detached Single Family	5,000 sf			45%	30%	1811-00	4022	SF-05		
	R-3	Detached Single Family	3,400 sf			50%	35%	1811-00	4022	SF-0		
	R-5	Detached Single Family	2,700 sf			50%	35%	1811-00	4022	SF-0		
	R-M (Res. Multi Fam.)	Detached Single Family Townhouses Three Family	40,000 sf 40,000 sf 40,000 sf	10du/gac		50% 50% 25%	25% 25% 25%	1811-00	4022	MF-08		
Multi Family Residential	AHOZ (overlay zone)	Affordable Multi-Fam Housing	20,000 sf	10 du/ac		50%	25%	1936-04	5308	MF-08		
	R-4	Detached 1 or 2 Family	4,200 sf	1du/2,100 sf		50%	35%	1983-06	5841	MF-15		
	R-PM (Planned MF Develop)	Detached Single Family	60,000 sf			60%	40%	1811-00	4022	MF-15		
		Multi Family Residential	60,000 sf			60%	40%	1811-00	4022			
		Senior Citizen Housing	22,000 sf	1du/4,000sf		50%	35%	1997-06	5719			
	Mixed-Use	PUD (Planned Unit Develop.)	Detached Single Family	5,000 sf	6du/gac				1986		MU-0	
			Townhouses	1,500 sf max=10% lot	6du/gac			60% 60%				
		BR-1	Retail w/apts	5,000 sf				60%	40%	1957-25	5719	MU-15
			Retail and Service w/apts Business and Professional Offices	5,000 sf 5,000 sf				60% 50%	40% 35%	1811-00 1811-00	4022 4022	MU-15
		B-2 (Marine Business)	Senior Citizen Housing	22,000 sf	1du/4,000sf			50%	35%	1997-06	5719	MU-15
Retail and Service w/apts Business and Professional Offices Senior Citizen Housing			40,000 sf 40,000 sf 22,000 sf				40% 50% 50%	35% 35% 35%	1811-00 1811-00 1997-06	4022 4022 5719		
B-3 (General Business)		Retail and Service w/apts Business and Professional Offices	20,000 sf 20,000 sf				60% 60%	35% 35%	1811-00 1811-00	4022 4022	MU-15	
		Senior Citizen Housing	22,000 sf	1du/4,000sf			50%	35%	1997-06	5719		
O (Office)		Detached Single Family Business and Professional Offices	5,000 sf 5,000 sf				60% 60%	30% 30%	1811-00 1811-00	4022 4022	MU-08	
		Senior Citizen Housing	22,000 sf	1du/4,000sf			50%	35%	1997-06	5719		
		Public Parking	n/a				n/a	n/a	1986			
Industrial Conservation		I (Industrial)	Retail, Service, Office, & Warehouse	10,000 sf			60%	35%	1811-00	4022	I-0	
		CON	Designated Wetlands	n/a			n/a	n/a	1986		Con/Rec	
<i>Note: P - Public Parking Zone, was classified MU-15, the same as the adjacent B-1 zone, as it appears in each case to exist to serve the B-1 uses.</i>												
Land Use Ordinance: Codified 3/18/85 (no recpt), revised 08/25/05 (recpt 5841), last reviewed 12/14/06 Zoning Map: Adopted 5/14/04 (recpt 5176) Table Print Date: 12/14/2006												

Marlboro

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	MHD	Mobile Homes	20 acres/4,000 sf	8du/ac				2004-14	ord.com	SF-0
	MHD-II	Mobile Homes	10 acres/3500 sf	10du/ac				2004-14	ord.com	SF-0
	PAC-III	Detached Single Family	75 acres/5,000 sf	2.8du/gac		55%	50%	2005-17	5432	SF-05
	R-10AH	Single Family Residential	10,000 sf	2.4 du/gac		32%	19%	2005-17	5432	SF-10
	R-1.5	Single Family Residential		9du/gac		28%	15%	2005-17	5432	SF-20
	R-20	Single Family Residential	20,000 sf	1.74 du/gac		28%	14%	2005-17	5432	SF-20
	R-20/15	Single Family Residential	20,000 sf	1.74du/gac		32%	18%	2005-17	5432	SF-20
		Cluster Provisions	15,000 sf	1.74du/gac						
	R-20AH-1	Detached Single Family	20,000 sf	1.10du/gac		28%	15%	2005-17	5432	SF-20
	R-20AH-2	Detached Single Family	20,000 sf	1.15du/gac		28%	15%	2005-17	5432	SF-20
	R-30/20	Single Family Residential	20,000 sf			28%	14%	2005-17	5432	SF-20
	R-25	Single Family Residential	25,000 sf			25%	13%	2005-17	5432	SF-20
	R-30	Single Family Residential	30,000 sf	1.16 du/gac		20%	10%	2005-17	5432	SF-20
	R-40/30	Single Family Residential	30,000 sf	0.43du/gac		20%	10%	2005-17	5432	SF-20
	FSC	Single Family Residential	40 acres/10,000 sf	1.16du/gac		15%	8%	2005-17	5432	SF-20
	FRD	Single Family Residential	30% - 10,000 sf							
		Cluster Provisions		70%-1.16du/gac						
	R-40AH	Detached Single Family	40,000 sf	0.60du/gac		15%	9%	2005-17	5432	SF-40
	R-40GAH	Detached Single Family	40,000 sf	0.78du/gac		15%	9%	2005-17	5432	SF-40
	R-60/15	Single Family Residential	60,000 sf	0.58du/gac		32%	18%	2005-17	5432	SF-40
		Cluster Provisions	25acres/15,000 sf	1.0 du/gac						
	R-60/40	Single Family Residential	60,000 sf	0.58du/gac		15%	9%	2005-17	5432	SF-40
		Cluster Provisions	40,000 sf	0.58du/gac						
	R-60	Single Family Residential	60,000 sf	0.58du/gac		15%	8%	2005-17	5432	SF-40
	SCPR	Single Family Residential	80,000 sf	0.43 du/gac		25%	13%	2005-17		SF-40
		Cluster Provisions	25acres/25,000 sf	0.8du/gac						
	SCPR-11	Single Family Res Cluster	25acres/25,000 sf	0.43 du/gac		25%	6%	2005-17	5432	SF-40
	R-80	Single Family Residential	80,000 sf	0.43 du/gac		15%	6%	2005-17		SF-80
	AHA	Single Family Residential	3 acres	0.43 du/gac			15%	2005-17	5432	SF-80
		Cemetery	40 acres							
	A/LC	Agriculture/Land Conservation	10 acres							
		Lot Size Averaging Prov	80,000 sf	0.10du/gac		15%	5%	2005-17	5432	SF-80
		Pub. & Pri. Golf Courses	150 acres							
	LC	Single Family Residential	5 acres	0.16du/gac		5%	2%			
		Cluster	10 acres/55,000 sf	0.185du/gac		15%	8%	2005-17	5432	SF-80
		Golf Course Residential	300 acres/55,000 sf	0.437du/gac		20%				
	PAC	Plan. Adult Residential	75 acres/5,000 sf	4du/gac			18%	2005-17	2005-17	SF-80
		Single Family Residential	15,000 sf	2du/gac		28%				

Matawan

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B. C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-100	Detached Single Family	15,000 sf			20%	20%	# 4/79		SF-10
	R-75	Detached Single Family	7,500 sf			30%	30%	# 4/79		SF-05
	R-50 _i	Detached Single Family	5,000 sf			30%	30%	# 4/79		SF-05
Multi Family Residential	R-50 _{ii}	Detached Single Family Two Family Residential	5,000 sf			30%	30%	# 4/79		MF-15
	R-M	Detached Single Family Garden Apartment	15,000 sf 3 acres	14 du/ac		20% 25%	20% 25%	# 4/79		MF-08
	SC	Senior Citizen Residential	9 acres	12 du/gac		25%	25%	# 4/79		MF-08
Mixed-Use	DPD (Downtown Pres.)	Single Family Residential Professional Offices	5,000 sf			100%		# 4/79		MU-08
	RID (Railroad Improv. District)	Multi-family - Mt Laurel Retail and Office		495 units		100%	FAR=2	04-13 re-exam	5195 4987	MU-24
Commercial	GB (General Business) SB (Special Business)	Hotel-Conf. Center Retail, Service, and Office Retail, Service, and Office Motels Nursing Homes	5,000 sf 40,000 sf			100%		# 4/79		C-0 C-12.5
Office-Business Industrial	HI (Highway Improv.) GO IND	Retail, Service, and Public Space General Office Retail, Service, and Office Warehouse, Research, Manufact.	20,000 sf 3 acres no regs			30% 30%	30% 30%	# 4/79 92-01 # 4/79	2397	C-12.5 OB-01 I-01
Land Use Ordinance:	Adopted 12/87, revised through 6/15/04 (recept 5195), last reviewed 12/14/06 (recept 5440)									
Zoning Map:	Adopted 6/3/02 (recept 4816)									
Table Print Date:	12/14/2006									

Middletown

Zone Type	Zone ID	Principle Use	Min. Lot Area	Corner Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-220	Single Family & Ag	220,000 sf	220,000 sf	1du/5ac	6%	10%	5%	06-2879	5774	SF-80	
	R-130	Single Family & Ag	130,000 sf	130,000 sf	1du/3ac	7%	10%	5%	06-2879	5774	SF-80	
	R-110	Single Family & Ag	110,000 sf	110,000 sf	1du/2.5ac	7%	10%	5%	06-2879	5774	SF-80	
	R-90	Single Family & Ag	90,000 sf	90,000 sf	0.78 du/gac	8%	12%	7%	03-2723	5030	SF-80	
	R-45	Single Family & Ag	45,000 sf	48,375 sf	1 du/ac		15%	8%	03-2723	5030	SF-40	
	R-45A	Single Family & Ag	15,000 sf	16,000 sf	20,000 sf lot ave		30%	25%	03-2723	5030	SF-10	
	R-30	Single Family & Ag	30,000 sf	34,825 sf	1.5 du/ac		15%	10%	03-2723	5030	SF-20	
	R-22	Single Family & Ag	21,875 sf	23,825 sf	2 du/ac		20%	15%	03-2723	5030	SF-20	
	R-22A	Single Family & Ag	8,500 sf	10,000 sf			35%	30%	Codified	4313	SF-05	
	R-15	Single Family & Ag	15,000 sf	17,250 sf			25%	20%	Codified	4313	SF-10	
	R-10	Single Family & Ag	10,000 sf	12,500 sf			25%	20%	Codified	4313	SF-10	
	R-7	Single Family & Ag	7,500 sf	9,000 sf			40%	35%	Codified	4313	SF-05	
	R-5	Single Family & Ag	5,000 sf	6,000 sf			40%	35%	Codified	4313	SF-05	
	Multi-Family Residential	R-1	Multi-Family Residential	150 acres		6 du/gac		25%	20%	Codified	4313	MF-0
		R-2	Multi-Family Residential	75 acres		5 du/gac		35%	20%	Codified	4313	MF-0
		R-3	Detached Storm Age Rest Attached Storm Age Rest	30 acres		3.5du/ac		40%		05-2830	5500	MF-0
		RTF	Detached Single Family	12,000 sf		(6 du/ac)	33%	35%	25%	Codified	4313	MF-0
		RTH	Attached Two Family	12,000 sf		(6 du/ac)	33%	35%	25%	Codified	4313	MF-0
		RTH-1	Multi-Family Residential	10 acres		5 du/gac		35%	20%	Codified	4313	MF-0
		RTH-2	Multi-Family Residential	5 acres		3 du/gac		30%	15%	Codified	4313	MF-0
RTH-3		Multi-Family Residential	10 acres		5 du/gac		40%		00-2605	4243	MF-0	
RTH-4		Multi-Family Residential	10 acres		8 du/gac		40%		00-2605	4243	MF-0	
RTH-5		Multi-Family Residential	15 acres		10 du/gac		40%		04-2792	5286	MF-08	
Mixed-Use	RTH-6	Multi-Family Residential	1.5 acres		20 du/gac		75%		04-2796	5290	MF-15	
	RTH-7	Multi-Family Residential	10 acres		6.5 du/gac		75%		04-2791	5284	MF-0	
	RGA	Multi-Family Residential	1 acre		15 du/ac		75%	40%	05-2810	5388	MF-08	
	RGA-1	Multi-Family Residential	12 acres		9.25 du/gac		38%	20%	Codified	4313	MF-08	
	RGA-2	Multi-Family Residential	10 acres		13 du/gac		40%		Codified	4313	MF-08	
	RGA-3	Multi-Family Residential	10 acres		12 du/gac		40%		Codified	4313	MF-08	
	RGA-4	Multi-Family Residential	1 acre		20 du/gac		70%		Codified	4313	MF-15	
	RHA	Multi-Family Residential	0.20 acres		26 du/gac		75%		04-2794	5285	MF-24	
	PRD	Multi-Family Residential	5 acres		20 du/gac				Codified	4313	MF-15	
	PRH	Senior Citizen Housing	(12+ac)		180 units total				02-2673	4763	MF-15	
	RHA-1	Public Rec/Sen Housing	5 acres		180 units total		60%		Codified	4313	MF-24	
	R-O	Detached Single Family Business and Professional Off	10,000 sf	12,500 sf	1 du/10,000 sf	40%	50%	30%	04-2797	5292	MU-0	
	MC	Marine Uses	25 acres				40%	20%			MU-0	
	AAC	Retail, Service, and Office	75 acres		207 units total		70%		02-2667	4749	MU-0	
	B-1	Active Adult Residential Commercial	125,000 sf tot				35%	25%	04-2760	5148	MU-0	
	B-2 Res Overlay	Detached Single Family Retail, Service, and Office	7,500 sf 10,000 sf				40%	35%	03-2723	5030	MU-0	
	B-1A	Residential over Commercial	20,000 sf			20%	70%		06-2882	5779	MU-08	
	B-3	Multi-Family Residential Retail, Service, and Office	10,000 sf		max=12 units max=2 bus		90%	60%	04-2799	5289	MU-15	
		Congregate Care Facility	3 acres			28%	70%		04-2801	5283	MU-15	
		Retail, Service, and Office	3 acres			28%	70%				MU-15	

Mixed-Use corr't	RTH-8	Multi-Family Residential Commercial-Residential	2.5 acres	7 du/ acres 4 du/ acres	10%	50%	40%	05-2810	5388	MU-0
	RTH-9	Multi-Family Residential Commercial-Residential	4 acres 3 acres	7 du/ acres	28%	60% 70%	40%	05-2810	5388	MU-0
	PD	Detached Single Family Multi-Family Residential	21,875 sf 30 acres	7 du/ gac	20%	20% 50%	15%	04-2801	5283	MU-0
	B-2	Retail, Service, and Office	30 acres		20%	50%				
Commercial	HC	Retail, Service, and Office Shopping Center	20,000 sf 10 acres		30%	70%		04-2801 00-2801	5283 4215	C-12.5 C-50
Office	B/P	Hotels and Motels Business and Professional Offices	3 acres 3 acres		25% 25%	70%		03-2723	5030	OB-01
	OR	Business and Professional Off	167,000 sf		25%	35%		03-2723	5030	OB-01
	OR-1	Business and Professional Off	250,000 sf		22%	25%		03-2723	5030	OB-01
	OR-2	Business and Professional Off	3 acres		18%	50%		03-2723	5030	OB-01
	OR-3	Business and Professional Off	75 acres		25%	45%		96-2441		OB-01
Industrial	M-1	Wholesale and Retail Fabrication Warehouses	10 acres 10 acres 10 acres		22%	60% 60% 60%		Codified	4313	I-10
Conservation	FL	Business and Professional Offices Federal Land	10 acres			60%		04-2793	5287	Com/Rec
<i>No changes are allowed</i>										
Land Use Ordinance Adopted 6/13/94 revised through 08/21/06 (rept 5819), last reviewed 12/14/06										
Zoning Map: Adopted 1/15/97, Amd. 7/19/04 (ord. 04-2772)										
Table Print Date: 12/14/2006										

Monmouth Beach

Zone District/Name	Zone ID	Principle Use	Min. Lot Area*	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	A	Single Family Residential	15,000 sf				n/a	12/26/1978		SF-10	
Multi-Family Residential	A-1	Single Family Residential	9,000 sf				n/a	12/26/1978		SF-05	
	A-2	Single Family Residential	15,000 sf				25%	12/26/1978		MF-24	
	A-3	High Rise Apartments	80,000 sf	35du/acre			20%	12/26/1978		MF-08	
Commercial	B	Single Family Residential	15,000 sf								
		Garden Apartments	80,000 sf	13du/acre							
	B-1	Retail, Service, and Offices									
		Banks	7,500 sf					n/a	12/26/1978		C-0
		Restaurants									
		Public Use									
	B-2	Retail, Service, and Offices									
		Banks									
		Restaurants	80,000 sf					20%	12/26/1978		C-50
		Marinas									
		Private Clubs									
		Public Use									
		Special Use	25,000 sf				n/a	12/26/1978		C-12.5	

* When the property is near the waterfront, there is a different value for Minimum Lot Area.

Land Use Ordinance: Adopted 12/26/1978, revised through 1/9/01 (recpt 4625), last reviewed 12/14/06 (recpt 4780)

Zoning Map: Adopted 1/27/1989

Table Print Date: 12/14/2006

Neptune City

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-1	Single Family Dwellings Municipal Buildings Parks and Playgrounds	7,500 sf			60%	40%	2002-08	4770	SF-05	
	R-2M	Mobile Homes	2 acres	9 du/acre				Codified		SF-0	
Multi-Family Residential	R-1T	Single Family Dwellings	7,500 sf							MF-08	
		Townhouses	5 acres	10 du/acre							
	R-2	Municipal Buildings Parks and Playgrounds	7,500 sf								
		Multi-Family Dwellings Municipal Buildings Parks and Playgrounds	25 ac 7,500 sf 7,500 sf	8 du/ac		60%			2002-08	4770	MF-0
R-2T	Townhouses Municipal Buildings Parks and Playgrounds	5 acres	8 du/ac			30%		2002-08	4770	MF-0	
Mixed-Use	RLC	Single Family Dwellings Municipal Buildings Retail and Service Business and Professional Offices Parks and Playgrounds	7,500 sf			70%		2002-08	4770	MU-0	
		Single Family Dwellings Municipal Buildings	7,500 sf 10,000 sf								
		Retail and Service Business and Professional Offices Restaurants	10,000 sf 10,000 sf 10,000 sf			70%			2002-08	4770	MU-0
		Hotels and Motels	1 acre								
Commercial	HC	Retail and Service Restaurants	10,000 sf 10,000 sf			50%		Codified	n/a	C-0	
		Hotels and Motels Municipal Buildings	1 acre 10,000 sf								
		Diners & Drive-Ins Municipal Buildings	10,000 sf 7,500 sf								
		Retail and Service Business and Professional Offices Theaters/Indoor Assembly Halls Restaurants	7,500 sf 7,500 sf 7,500 sf 1 acre 10,000 sf			70%			2002-08	4770	C-0
Industrial	I*	Manufacturing/Light Machinery Research Fabrication Warehouses Public Utilities Municipal Buildings	1 acre			70%		2002-08	4770	I-01	
* Note: The I zone was formerly called the LI zone.											
Land Use Ordinance: Adopted 5/14/1979, revised through 1/18/89 (no recpt) & ord 2002-8, last reviewed 12/14/06 (recpt 5796)											
Zoning Map: Adopted 9/4/1997 (recpts 4544 & 5015)											
Table Print Date: 12/14/2006											

Neptune Township

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-1	Detached Single Family	12,500 sf	3.4du/acre		35%	25%	00-40	4115	SF-10	
	R-2	Detached Single Family	10,000 sf	4.3du/acre		40%	30%	00-40	4115	SF-10	
		Maninas	10,000 sf			40%	25%				
	R-3	Detached Single Family	7,500 sf	5.8du/acre		45%	30%	00-40	4115	SF-05	
	R-4	Detached Single Family	5,000 sf	8.7du/acre		65%	50%	00-40	4115	SF-05	
	HD-R-1	Detached Single Family	1,800 sf	24.2du/acre		90%	85%	00-40	4115	SF-0	
		Detached Single Family	1,800 sf	24.2du/acre		90%	85%				
	Multi-Family Residential	R-5	Detached Single Family	5,000 sf	8.7du/acre		65%	50%	00-40	4115	MF-15
			Multi-Family Residential	120,000 sf	10du/acre		55%	30%			
			Townhouses	120,000 sf	8du/acre		55%	30%			
HD-R-2		Age Restricted Residential	4,000 sf	18du/acre		75%	55%	00-40	4115	MF-24	
		Detached Single Family	18,000 sf	48du/acre		90%	85%				
		Multi-Family Residential									
Mixed-Use	B-3	Long-term Care Facilities						00-40	4115	MU-0	
		Detached Single Family	10,000 sf	8du/acre							
		Multi-Family Residential	10,000 sf	8du/acre							
		Marinas/Marine Sales	10,000 sf			80%	40%				
	PUD	Restaurants	10,000 sf					02-42	4941	MU-0	
		Detached Single Family	5,000 sf	8.7 du/ac			30%				
	R-2/LI Option	Adult Retirement Community	100 ac			min 20% op sp max 15% of tract	30%	00-56	4256	MU-0	
		Retail, Service, and Offices					30%				
		Multi-Family Residential					30%				
		Detached Single Family	10,000 sf	4.3 du/ac		40%	30%				
C	Light Industry	40,000 sf		1.6		70%	00-40	4115	MU-0		
	Detached Single Family	200,000 sf				80%					
HD-B-1	Adult Retirement Community	200,000 sf				80%	00-40	4115	MU-24		
	Service & Offices	200,000 sf			1.0	80%					
B-1	Detached Single Family	3,600 sf	24.2du/acre			95%	02-14	4824	MU-24		
	Retail, Service, and Offices	3,600 sf				95%					
C-1	Retail, Service, and Offices	15,000 sf		0.6		80%	00-40	4115	C-50		
	Senior Citizen Apartments	15,000 sf	(27 du/ac)	1.10		80%					
Commercial	C-2	Retail, Service, and Offices	2.5 acres			75%	00-40	4115	C-50		
		Hotels	2.5 acres			65%				30%	
	C-3	Hotels	50,000 sf				65%	00-40	4115	C-50	
		Service & Offices	50,000 sf		0.6		30%				
	C-4	Automobile Dealership	50,000 sf				65%	03-35	5088	C-50	
		Retail, Service, and Offices	50,000 sf		0.6		30%				
	C-5	Automobile Dealership	50,000 sf				65%	03-35	5088	C-12.5	
		Retail, Service, and Offices	50,000 sf		0.6		30%				
	C-6	Retail, Service, and Offices	15,000 sf				80%	03-35	5088	C-12.5	
		Retail, Service, and Offices	15,000 sf		0.6		30%				
C-7	Retail, Service, and Offices	15,000 sf				80%	00-40	4115	OB-0		
	Retail, Service, and Offices	15,000 sf		0.6		40%					
Office	Professional Offices	20,000 sf				80%	03-35	5088	OB-0		
	Service & Offices	15,000 sf		0.6		35%					
Industrial	High Tech LI (PCD)	Office & Hotel	5 ac		2.7	70%	00-56	4256	OB-10		
	Professional Offices	40,000 sf				40%					
Conservation/ Recreation	LI	Research Laboratories	40,000 sf		1.6	70%	00-40	4115	I-0		
	Light Industry	40,000 sf				40%					
Land Use Ordinance:	HD-R	Non-Commercial recreation	none			none	00-40	4115	Cont/Rec		
	Adopted 7/24/2000										
Zoning Map:	Adopted 11/10/03										
Table Print Date:	12/14/2006										

revised through 9/27/04 (recpt 5242), last reviewed 12/14/06 (recpt 5462)

Ocean Township

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-1	Single Family Dwellings	40,000 sf			75%	20%	1564	2380	SF-40	
		Single Family Dwellings (Cluster)	30,000 sf	1u/acre		75%	20%	1657	2692		
		Golf Course Country Club	50 acres			75%	20%	1936	4863		
	R-1T	Single Family Dwellings	40,000 sf		1u/acre		75%	20%	1564	2380	SF-40
		Single Family Dwellings (Cluster)	22,500 sf			75%	20%	1657	2692		
	R-2	Single Family Dwellings (Cluster)	16,875 sf		1.7u/acre		75%	25%	1881	ord.com	SF-20
		Single Family Dwellings	18,750 sf				80%	25%	1564	2380	
	R-3	Single Family Dwellings (Cluster)	14,000 sf		2u/acre		75%	25%	1657	2692	SF-20
		Single Family Dwellings	100ac/6,000 sf		2.5du/gac		75%	40%	2003	5305	
	PAC (O-2, R-3, O-1/20)	R-5	Single Family Dwellings	7,500 sf			90%	35%	1585	2458	SF-05
Detached Single Family			5,000 sf			90%	35%	1564	2380		
Multi-Family Residential	PAC (R-1)	Single Family Dwellings	50ac/6,000sf	2.5du/gac-370 max			40%	1679	2817	MF-0	
		Duplexes	5,000 sf/du	2.5du/gac-370 max			40%	1679	2817		
	R-7	Multi-Family Dwellings	25 acres		10u/acre		60%	27%	1564	2380	MF-08
		Senior Citizen Apartment Develop.	8 acres		16du/gac-200 max		60%	27%	1564	2380	
	SCA (O-2, O-1/20)	AR-3/PRD	Detached Single Family	14,000 sf	2.5u/acre		85%	27%	1564	2380	MF-08
			Affordable Residential Develop.	25 acres	3.2du/gac		85%	27%	1564	2380	
			Senior Citizen Housing Complexes	7 acres	14u/acre		85%	27%	1564	2380	
			Senior Independent Living	15 acres	6du/gac		85%	27%	1662	ord.com	
			Townhouses		8du/40,000 sf		85%	27%		ord.com	
	R-4	R-4HO	Detached Single Family	10,000 sf			90%	27%	1564	2380	MF-15
Senior Housing				20du/ac		90%	27%				
Mixed-Use	R-3/PRD	Detached Single Family	10,000 sf			90%	27%	1564	2380	MF-15	
		Senior Housing		20du/ac		90%	27%				
		Detached Single Family	2ac/18,750 sf		16%	80%	25%	1564	2380		
	T-1	C-6*	Townhouses	35 acres	3.2du/gac		80%	27%	1564	2380	MU-0
			Office	2 acres	16%	80%	10%	1502	4715		
	C-1	C-3	Single Family Dwellings	10,000 sf			90%	27%	1564	2380	MU-0
			Professional Offices	10,000 sf		27%	90%	27%	1564	2380	
	Commercial	C-1	Community Mixed Use	28 acres	100 dus max		90%	14%	2013	5445	MU-08
			Retail, Office & Service			20%	90%	27%	1564	2380	
		C-3	RSSF (C-4)	Retail, Office & Service	10,000 sf			27%	27%	1564	2380
Retail, Office & Service				20,000 sf		30%	27%	1939	ord.com		
O-1/20		O-1/40	Retail, Office & Service	1 acre			27%	27%	1886	4158	C-12.5
			Retail, Office & Service	20 acres		30%	27%	1943	ord.com		
O-1/80		O-2	Retail, Office & Service	2 acres			27%	27%	1564	2380	C-50
			Regional Shopping Center	40 acres		30%	75%	1679	2817		
Office		O-1/20	Retail, Office & Service	3 acres			27%	27%	1564	2380	C-50
			Office, Service & Lab	20,000 sf		35%		1679	2817		
Industrial	I-1	Office, Service & Lab	40,000 sf			27%	27%	1564	2380	OB-0	
		Office, Service & Lab	80,000 sf		30%	27%	1564	2380			
Public	SRI Shrewsbury Riv Isl	Office, Service & Lab	5 acres			27%	27%	1564	2380	OB-01	
		Office, Service & Lab	30ac/3.5 ac		30%	75%	1991	ord.com			
Land Use Ordinance Zoning Map:	Adopted 1/8/1992, rev through 5/25/05 (recpt 5445), last reviewed 12/14/06 (recpt 5903)	Office, Service & Lab - Cluster	40,000 sf			75%	27%	1564	2380	OB-01	
		Light Industrial			54%		1991	ord.com			
Table Print Date:	12/14/2006										

Note: C-6 split is dictated by ordinance maximums as follows:
60% 1st floor Commercial, 40% 2nd floor office, 25% 2nd floor res.

Oceanport

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-1	Single Family	30,000 sf	1.5 du/ac			30%	codified		SF-20
	R-2	Single Family	15,000 sf	3 du/ac			30%	codified		SF-10
	R-3	Single Family	12,000 sf	3.7 du/ac			30%	codified		SF-10
	R-4	Single Family	10,000 sf	4.5 du/ac			30%	codified		SF-10
Multi-Family Residential	R-7.4	Single Family	7,500 sf	4 du/ac or 5.8 du/ac			30%	codified		SF-05
	R-5	Single Family Two Family	10,000 sf 7,000 sf/du	4.5 du/ac 6.3 du/ac			30% 30%	codified		MF-0
Mixed-Use	RMO	Multi-family Development (fee simple owner)	20 ac	6 du/ac			25%	codified		MF-0
	RM	Multi-family Dwellings	5 ac	12 du/ac			30%	codified		MF-08
Commercial	V-C	Single Family retail, service & off. w/2-3 floor res shopping centers elderly housing	6,000 sf 6,000 sf 5 ac	16 du/ac 800sf min unit		80% 80% 80%	40% 40% 40%	codified 07/17/03 codified	5052	MU-15
	B-2	horse racing/clubhouses	15,000 sf	50 du max/dev		80%	40%	codified		C-50
	B-1	professional office	80,000 sf				25%	codified		OB-01
	I	office, manufacture, labs	62,500 sf 40,000 sf				35%	codified		I-0
<i>Note: items in red reflect interpolation. Max BC in red reflects adding the principal and accessory use BC percentages together.</i>										
Ordinance:	Adopted 9/30/2002 (recpt 5007), revised through 07/17/03 (recpt 5052), last reviewed 12/14/06 (recpt 5524)									
Zoning Map:	Adopted 12/16/1996									
Table Print Date:	1/24/2011									

Red Bank

Zone/District Name	Zone ID	Principal Use	Min. Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	RA	Detached Single Family	6,500 sf				35%	Codified 2004	5249	SF-05	
	RB	Detached Single Family	3,500 sf				40%	Codified 2004	5249	SF-0	
	RB-1	Detached Single Family	4,500 sf				40%	Codified 2004	5249	SF-0	
	RB-2	Attached Single Family	3,000 sf				45%	Codified 2004	5249	SF-0	
Multi Family Residential		Detached Single Family	3,500 sf				40%	Codified 2004	5249	MF-08	
		Two Family	7,000 sf				40%	Codified 2004	5249	MF-08	
	AH Overlay	Multifamily Residential	1.95 acres	16du/gac			65%	2006-53	5907	MF-08	
		Detached Single Family	3,500 sf				40%				
		Attached Single Family	3,000 sf				45%				
	RD	Two Family	7,000 sf				40%	Codified 2004	5249	MF-08	
		Garden Apartments	120,000 sf	15du/gac			75%				
		Townhouses	120,000 sf	12du/gac			80%				
		Retail, Office & Service	10,000 sf		1.0		40%	Codified 2004	5249	C-0	
		Medical Facilities and Office	20,000 sf		4.0		85%	Codified 2004	5249	OB-0	
Commercial	HB (Highway)										
Office/Business	MS (Medical Service)										
Mixed-Use	NB	Retail, Service & Office with 2nd Floor Residential	none	4 units/bldg	1.75		85%	Codified 2004	5249	MU-0	
	CCD-1	Retail, Service & Office with 2nd Floor Residential	none	4 units/bldg	2.25		90%	Codified 2004	5249	MU-0	
	CCD-2	Retail, Service & Office with 2nd Floor Residential	none	4 units/bldg	2.25		90%	2005-24	5447	MU-0	
	PO (Professional)	Office and Single Family Res.	7,500 sf				80%	Codified 2004	5249	MU-0	
	BR-1		Detached Single Family	4,500 sf				35%			
			Garden Apartments	45,000 sf	14du/gac			75%	Codified 2004	5249	MU-08
			Townhouses	25,000 sf	12du/gac			80%			
			Retail, Office & Service	10,000 sf		2.1		85%			
			Detached Single Family	4,500 sf				35%			
	BR-2		Garden Apartments	45,000 sf	14du/gac			75%			
			Townhouses	25,000 sf	10du/gac			80%			
			Retail, Office & Service	10,000 sf		2.0		85%			
	WD		Detached Single Family	5,000 sf				35%			
			Garden Apartments	45,000 sf	16du/gac			75%			
			Townhouses	45,000 sf	10du/gac			65%			
		Retail, Office & Service	20,000 sf		1.0		85%				
Industrial	I	Manufacturing & Warehouse	none				85%	Codified 2004	5249	I-0	
	LI	Office, Manuf. & Warehouse	none				85%	Codified 2004	5249	I-0	
Land Use Ordinance: Codified 2004 (through supplement 10 - 12/31/03 - receipt 5249), rev through 11/13/06 (receipt 5907), last reviewed 12/14/06											
Zoning Map: Adopted 12/31/04											
Table Print Date: 1/24/2011											

Green = estimated from ordinance requirement for unoccupied open space.

Roosevelt

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-40 w. Pub. Sewer	Detached Single Family cluster	40,000 sf 20,000 sf	8du/gac		20%		97-3 79-4	520	SF-40
	AH	Single Family Residential	60,000 sf			20		97-34	5544	SF-40
	R-100	Detached Single Family w/o public sewer	100,000 sf 100,000 sf			30%		97-3	520	SF-80
	R-AG 400	Detached Single Family Agriculture	10 acres 10 acres			15%		97-3	520	SF-80
Multi Family Residential	PCD	Detached Single Family	10,800 sf/24,000 sf	0.6du/gac		35		97-27	3932	MF-0
		Two Family	24,000 sf	0.5du/gac		35		97-26	4374	
		Multi Family Residential		0.7du/gac		35		97-26	4374	
Commercial	C-40 w. Pub. Sewer	Retail and Offices	40,000 sf			30%		97-3	520	C-12.5
Land Use Ordinance: 04/1979 rev. through 10/21/05 (rcpt 5544), last reviewed 12/14/05, codified ordinance pending (rcpt 5855), not yet adopted										
Zoning Map: 12/11/2001										
Table Print Date: 12/14/2006										

Rumson

Land District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	FAR	Max. I.S.*	Max. B.C.*	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-1	Detached Single Family	1.5 acres					10/90		SF-80
	R-2	Golf Course/Country Club	100 acres					10/90		SF-40
	R-3	Detached Single Family	1.0 acres					4/92		SF-20
	R-4	Tennis Courts/Country Club	8 acres					4/92		SF-10
	R-5	Detached Single Family	.75 acres					4/92		SF-05
	R-6	Detached Single Family	10,000 sf					4/92		SF-05
Mixed-Use	H-BP	Home Professional Offices	6,000 sf					4/92		SF-05
		Barley Point Seasonal Residences	5,000 sf			20%		12/05/02	4935	SF-05
		Detached Single Family	30 ac	57 units						
		2nd Floor residential	6,000 sf				21%	4/92		
		Business and Prof. Offices	12,000 sf				18.5%	05/06/04	5198	MU-0
		Service	12,000 sf				18.5%	4/92		
		Detached Single Family	12,000 sf				21%	4/92		
		2nd Floor residential	6,000 sf				18.5%	05/06/04	5198	MU-0
		Retail and Offices	12,000 sf				18.5%	4/92		
		Detached Single Family	10,000 sf				21%	01/20/00	3991	MU-0
Public	NB	2nd Floor residential	12,000 sf				18.5%	05/06/04	5198	MU-0
	POS	Retail and Offices	12,000 sf				18.5%	4/92		Con/Rec
		Public Facilities/Open Space	n/a					4/92		
		Detached Single Family	3 ac					4/92		
*See Ordinance 10/97, (recpt 3709) to find calculations for Building Coverage and Impervious Surfaces.										
*See Mixed Use Affordable Housing Overlay for POB, GB & NB 2nd floor residential uses.										
*See ordinance adopted 05/19/05 (recpt 5452) for FAR calculations										
Land Use Ordinance:	Adopted 6/12/90, revised through 05/19/05 (recpt 5452), last reviewed 12/14/06 (recpt 5652)									
Zoning Map:	Adopted 12/6/89, revised through 12/05/02 (recpt 4935)									
Table Print Date:	12/14/2006									

red = estimate

Sea Bright

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I. S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-1	Single Family Residential	7,500 sf				30%	4/17/1989	3428	SF-05
	R-2	Single Family Residential	4,000 sf				50%	4/17/1989	3428	SF-0
Mixed-Use	B-1	Single Family Residential	4,000 sf				50%	4/17/1989	3428	MU-08
		Multi Family A	4,000 sf				50%	4/17/1989	3428	
		Multi Family C	80,000 sf	15du/gac			85%	76-98	3766	
Commercial	B-2	Retail, Service, and Offices	4,000 sf				50%	n/a	1772	MU-0
		Marinas, Restaurants, Offices	25,000 sf				30%	n/a	1772	
		Multi Family A	4,000 sf				50%	n/a	1772	
Conservation	B-3	Swim Clubs	50,000 sf				20%	n/a	1772	C-50
		CP (Coastal Protect.)	n/a					n/a	3428	Con/Rec
Land Use Ordinance:	12/15/1980 (no recpt), revised through 05/17/05 (recpt 5421), last reviewed 12/14/06 (recpt 5510)									
Zoning Map:	Aug., 1996, revised through 05/06/03 (recpt 4996)									
Table Print Date:	12/14/2006									

Industrial	HC/PO	Retail and Service Business and Professional Offices Banks/Financial Facilities Telegraph and Express Offices Light Industrial	120,000 sf 40,000 sf	60% 65%	30% 40%	670 737	3628	I-01
	LI	Light Industrial Manufact. Process, and Assem. Banks/Financial Facilities Business and Professional Offices Automobile Sales	40,000 sf	65%	40%	670		I-0
ROWL	LIR-60	Scientific Research/Engineering Admin., Bus., Exec., and Prof. Offices	60,000 sf	60%	30%	670		ROWL-0
	LIR-88	Scientific Research/Engineering Admin., Bus., Exec., and Prof. Offices	88,000 sf	60%	30%	670		ROWL-0
Land Use Ordinance:	Adopted 05/11/1987, codified 1994, revised through 06/21/04 (recept 5181), last reviewed 12/14/06 (recept 5820), ordinance 873 (recept 5755) not yet adopted.							
Zoning Map:	Adopted 7/23/1984 Armd. 3/1990							
Table Print Date:	1/24/2011							

Spring Lake Heights

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-1	Detached Single Family	40,000 sf	1du/acre						
		Cluster Development	10,000 sf	1du/acre		25%	Codified	3505	SF-40	
		Municipal Facilities	40,000 sf							
		Detached Single Family	7,500 sf	5.8du/acre		20%	Codified	3505	SF-05	
		Municipal Facilities								
Single Family Residential	R-2	Detached Single Family	9,000 sf	4.8du/acre		20%	Codified	3505	SF-05	
		Municipal Facilities								
		Detached Single Family	6,000 sf	7.2du/acre		25%	Codified	3505	SF-05	
		Municipal Facilities								
		Detached Single Family	7,500 sf	5.8du/acre		25%	Codified	3505	SF-05	
Multi-Family Residential	R-ML	Detached Single Family								
		Attached Single Family								
		Two Family Residential	1 acre	7du/acre			Codified	3505	MF-0	
		Townhouses								
		Multi-Family Dwelling								
Commercial	B-2	Garden Apartment								
		Retail and Service	18,000 sf			50%				
		Banks/Fiduciary Institutions	10,000 sf			40%	Codified	3505	C-0	
		Restaurants/Nightclubs								
		Municipal Facilities								
Office	B-1	Banks/Fiduciary Institutions								
		Business and Professional Offices	10,000 sf			40%	Codified	3505	OB-0	
		Municipal Facilities								
Land Use Ordinance:	Adopted 1989 (recept 3505), revised through 12/26/00 (recept 4537), last reviewed 12/14/06									
Zoning Map:	Adopted 12/1988, Amd. 6/11/1990									
Table Print Date:	12/14/2006									

Spring Lake Borough

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-1	Detached Single Family	15,000 sf			40%	25%	28-2001	ord.com	SF-10
	R-2	Detached Single Family	7,500 sf			55%	25%	28-2001	ord.com	SF-05
	R-3	Detached Single Family	11,250 sf			45%	25%	15-2003	ord.com	SF-10
Senior Citizen Residential	CS-SC	Detached Single Family	11,250 sf			45%	25%	26-2002	ord.com	MF-24
	RC	Senior Citizen Residential	135,000 sf	55 du/gac		80%	40%			
	GC	Retail, Service, and Offices	2,500 sf			70%		37-2000	ord.com	C-0
		Retail, Service, and Offices	7,500 sf			50%		37-2000	ord.com	C-0
Land Use Ordinance:	Adopted 03/12/1998 (recpt 3403), revised through ord. # 28-2004 (08/10/04 at ordinance.com), last reviewed 12/14/06 (recpt 5866)									
Zoning Map:	3/12/1998									
Table Print Date:	12/14/2006									

Tinton Falls

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	FAR	Max. I.S.	Max. B.C.	Ord. #	Receipt	Composite Zone	
Single Family Residential	AAR2	SF Senior Housing	5,000 sf	4.1 du/ac		65	48	04-1129	5220	SF-05	
	R-1	Detached Single Family w/ septic	60,000 sf					99-1000	3948	SF-40	
		Detached Single Family	40,000 sf			15%		99-1000	3948		
		Detached Single Family (Cluster)	30,000 sf			18%		99-1000	3948		
	R-2	Agriculture	5 acres				n/a	99-982	4394	SF-20	
		Detached Single Family	30,000 sf			18%		99-1000	3948		
		Detached Single Family w/ septic	60,000 sf					99-1000	3948		
		Detached Single Family (Cluster)	20,000 sf			22%		99-1000	3948		
	Multi Family Residential	SI	Agriculture	5 acres			n/a	99-892	4394	SF-20	
		R-2 (SCO)	Detached Single Family	30,000 sf				18%	Sup 6	ord.com	SF-20
Mixed-Use	R-4 (SCO)	R-2 & Senior Citizen Res.	10 acres	12 du/ac	0.20	30%		99-1000	3948	MF-08	
	R-3	R-4 & Senior Citizen Res.	15 du/ac						99-1000	3948	MF-15
		Detached Single Family	11,500 sf	4.2 du/gac		25%			Sup 5	ord.com	MF-0
		Detached Single Family (Cluster)	7,500 sf	4.2 du/gac		32%					
		Townhouses	4 acres	4.2 du/gac		40%	n/a				
		Garden Apartments	2 acres	4.2 du/gac		25%	n/a				
	Duplex and Other Plex	5,000 sf	4.2 du/gac		25%	12%					
	R-4	Detached Single Family	11,500 sf	5 du/gac		25%			Sup 5	ord.com	MF-0
		Detached Single Family (Cluster)	7,500 sf	5 du/gac		32%	23%				
		Townhouses	4 acres	5 du/gac		40%	n/a				
AAC	Garden Apartments	2 acres	5 du/gac		25%	n/a		Sup 5	ord.com	MF-0	
	Duplex and Other Plex	5,000 sf	5 du/gac		25%	12%					
Mixed-Use	R-5	Townhouses, Senior Housing	50 acres	2.8 du/ac		40%	25%	03-1108	5075	MF-0	
	SO-15A	Affordable Townhouses/Apts	30 acres	8.5 du/ac		70%	35%	05-1140	5316	MF-08	
		Detached Single Family	11,500 sf	3.0 du/gac		25%	16%	99-892	4394	MU-0	
		Detached Single Family (Cluster)	7,500 sf	3.0 du/gac		32%	23%	99-892	4394		
	Offices	See Ord.			50%		99-892	4394			
	SO-15B	Detached Single Family	11,500 sf	3.0 du/gac		25%	16%	99-892	4394	MU-0	
		Detached Single Family (Cluster)	7,500 sf	3.0 du/gac		32%	23%	99-892	4394		
	C-1	Offices	1.5 acres			50%		99-892	4394	MU-0	
		Detached Single Family	11,500 sf	3.0 du/gac		25%	16%	99-892	4394		
		Detached Single Family (Cluster)	7,500 sf	3.0 du/gac		32%	23%	99-892	4394		
IOP-10	Retail, Offices & Service	12,000 sf			0.3	65%		99-892	4394	MU-24	
	Manufact., Research, and Office	2 acres			0.10	35%		Sup 6	ord.com		
IOP-15	Active Adult Community	50 acres	3.2 du/ac					Sup 6	ord.com	MU-24	
	Cont. Care Retirement Comm.	100 acres	30 du/gac		50%*						
IOP-20	Manufact., Research, and Office	2 acres			0.15	50%		Sup 6	ord.com	MU-24	
	Active Adult Community	50 acres	3.2 du/ac		50%*						
IOP-25	Cont. Care Retirement Comm.	100 acres	30 du/gac		0.60	60%		Sup 6	ord.com	MU-24	
	Manufact., Research, and Office	2 acres			0.20	60%					
IOP-25	Active Adult Community	50 acres	3.2 du/ac		0.25	65%		30-1108	5075	MU-24	
	Cont. Care Retirement Comm.	100 acres	30 du/gac		0.60	50%*					

Wall Township

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	R-R	Detached Single Family	2 acres	0.6du/gac	15%	9%	# 1/79	299	SF-80		
	RR-5	Detached Single Family	5 acres	0.2du/gac	7%	6%	# 16-1992	3413	SF-80		
	RR-6	Detached Single Family	6 acres	0.16du/gac	6%	5%	# 16-1992	3413	SF-80		
	R-60	Detached Single Family	60,000 sf	0.6du/gac	20%	10%	# 1/79	299	SF-40		
	R-40	Detached Single Family	40,000 sf	0.9du/gac	20%	12%	# 16-1992	3413	SF-40		
	R-30	Detached Single Family	30,000 sf	1.2du/gac	25%	14%	# 1/79	299	SF-40		
	ML-25	Detached Single Family	25,000 sf	1.2du/gac	30%	15%	# 29-2006	5884	SF-20		
	R-25	Detached Single Family	25,000 sf	1.5du/gac	30%	15%	# 16-1992	3413	SF-20		
	R-20	Detached Single Family	20,000 sf	1.7du/gac	30%	17%	# 1/79	299	SF-20		
	R-15	Detached Single Family	15,000 sf	2.9du/gac	35%	19%	# 3-2002	3413	SF-10		
	R-10	Detached Single Family	10,000 sf	4.4du/gac	40%	22%	# 1/79	299	SF-10		
	R-7.5	Detached Single Family	7,500 sf	5.8du/gac	40%	25%	# 3-2002	3413	SF-05		
	R-5	Detached Single Family	5,000 sf	5,000 sf	50%	30%	# 16-1992	3413	SF-05		
	MLC-RAC	Detached Single Family	5,000 sf	2.2du/gac	50%	41%	# 47-2001	4728	SF-05		
	MH	Manufactured Housing		7du/gac			# 2-1994	3413	SF-0		
	MHP	Mobile Home Park		7du/gac			# 16-1992	3413	SF-0		
	Multi-Family Residential	HD-8	Multi-Family Residential Townhouses	10 acres 10 acres	8du/gac 6du/gac	50% 50%	30% 30%	# 16-1992	3413	MF-0	
		HD-12	Multi-Family Residential	10 acres	12du/gac	60%	30%	# 16-1992	3413	MF-08	
		ML-3	Detached Single Family	15,000 sf		3du/ac	40%	20%			
			Attached Single Family	2,000 sf		3du/ac	40%	20%	# 37-1991	3413	MF-0
			Townhouses/Apartments			6du/ac	40%	20%			
		ML-7	Single Family-Cluster/Zero Lot	2,000 sf		3du/ac	40%	20%			
		ML-7	Multi-Family Residential		7du/gac		40%		# 17-1999	4478	MF-0
ML-8A		Detached Single Family (Cluster)				50%	30%				
		Attached Single Family (Cluster) Townhouses/Quadplexes			6du/gac	50%	30%	# 15-1992	3413	MF-0	
ML-8B		Senior Citizen Residential Townhouses		8du/gac 8du/gac		50%	30%		3413	MF-0	
MLC-3		Attached Single Family Townhouses		3du/gac				# 10-1995	3413	MF-0	
MLC-3.4		Townhouses	15 acres	3.4du/gac		40%	15%			MF-0	
MLC-7		Attached Single Family		7du/gac				# 34-1987	3413	MF-0	
MLC-8		Attached Single Family		8du/gac				# 34-1987	3413	MF-0	
MLC-8A	Attached Housing Units		8du/gac				# 13-1986	3413	MF-0		
ML-12	Townhouses, etc.		12du/gac		40%		codified		MF-08		
ML-12A	Townhouses Quadplexes		23du/gac		60% 60%		# 13-1998	3839	MF-15		
ML-13C	Flats/Apartments				60%				MF-08		
MLC-9	Senior Citizen Residential	1.9 acres	13.68du/ac				# 47-2001	4728	MF-08		
MLCC	Attached Single Family Congregate Care Residential	6 acres 4 acres	9.2du/gac 0.16du/gac		6%	5%	# 34-1987	3413	MF-08		
ML-PD-GM	Detached Single Family	2 acres	30du/gac	FAR=0.35	40%	20%	# 23-2006	5807	MF-15		
	Attached Single Family Townhouses* Golf Course		3du/gac		15% 30%	9% 20%	# 24-1994	3413	MF-0		
MLC-RAC-2	Detached Single Family Recreation Facilities Offices	5,000 sf	3.6du/gac		25% 25%	25%	# 2-1997	4303	MF-0		

Commercial	HB-20	Retail, Office, and Service	20,000 sf		65%	20%	# 12-2005	5392	C-12.5
	HB-40	Retail, Office, and Service	40,000 sf		65%	20%	# 12-2005	5392	C-12.5
	NB	Retail, Office, and Service	20,000 sf		65%	20%	# 12-2005	5392	C-12.5
	HB-80	Retail, Office, and Service	80,000 sf		65%	20%	# 12-2005	5392	C-50
	HB-120	Shopping Centers	80,000 sf		65%	20%	# 12-2005	5392	C-50
		Retail, Office, and Service	120,000 sf		65%	20%	# 12-2005	5392	C-50
	HB-200	Shopping Centers	120,000 sf		65%	20%	# 12-2005	5392	C-50
		Retail, Office, and Service	200,000 sf		60%	20%	# 12-2005	5392	C-50
	MLC-HB-200	Shopping Centers	200,000 sf		60%	20%	# 12-2005	5392	C-50
		Retail, Office, and Service	100,000 sf		65%	20%			C-50
	CR-10	Shopping Centers	100,000 sf		65%	20%			C-50
		Office and Service	10 acres		55%	20%	# 11-2004	5165	C-50
	CR-40	Commercial Rec	10 acres		38%	10%	# 26-1998	4320	C-50
		Commercial Rec	40 acres		38%	10%			C-50
	Office-Business	OB-20	Bus & Prof Offices	20,000 sf		65%	20%	# 12-2005	5392
OB-40		Bus & Prof Offices	40,000 sf		65%	20%	# 12-2005	5392	OB-0
OB-120		Shopping Centers	120,000 sf		65%	20%	# 12-2005	5392	OB-01
		Bus & Prof Offices	120,000 sf		65%	20%			OB-01
OP-2		Office and Service	2 acres		60%	20%	# 12-2005	5392	OB-01
Research-Office-Warehouse-Laboratory	OP-10	Office and Service	10 acres		50%	20%	# 12-2005	5392	OB-10
	OL-2/OR-2	Office and Service	2 acres		65%	20%	# 2-2000	3998	ROWL-0
	OL-5/OR-5	Printing and Fabrication	5 acres		60%	20%	# 9-2005	5353	ROWL-0
	OL-10/OR-10	Security and Commodity Brokers	10 acres		55%	20%	# 9-2005	5353	ROWL-10
		Airports	100 acres		15%	5%	# 16-1992	3413	ROWL-10
Industrial	GI-2	Office and Service	100 acres		15%	5%	# 16-1992	3413	ROWL-10
	GI-5	Office and Service	2 acres		65%	20%	# 16-1992	3413	I-01
		Manufacturing and Fabrication	2 acres		65%	20%			I-01
	GI-10	Printing and Fabrication	5 acres		65%	25%	# 16-1992	3413	I-01
		Security and Commodity Brokers	10 acres		55%	25%	# 16-1992	3413	I-10
<i>Note: red = Zone listed in ordinance, but not on map. OLI in ordinance, OR on map.</i>									
Land Use Ordinance:		Revised through 11/21/06 (recpt 5807), last reviewed 12/15/06.							
Zoning Map:		Revised through 11/21/06 (recpt 5807)							
Table Print Date:		1/24/2011							

West Long Branch

Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	Net Density	Max. I.S.	Max. B.C.>	Ord. #	Receipt #	Composite Zone
Single Family Residential	R-22	Single Family Dwellings	22,500 sf			30%	23%	09-10	6520	SF-20
		Public Use	22,500 sf							
	R-15	Single Family Dwellings	15,000 sf			38%	25%	08-9	6201	SF-10
		Public Use	15,000 sf							
R-10	Single Family Dwellings	10,000 sf			40%	30%	09-10	6520	SF-10	
	Public Use	10,000 sf								
Multi-Family	MF	Multi-Family Dwellings	2 ac	8du/ac		50%	25%	09-10	6520	MF-0
		Single Family Dwellings	10 ac	(18du/ac)		50%	30%	08-7	6192	MF-15
	SH	Senior Single Family Dwellings	15,000 sf	10du/gac	8du/ac	38%	25%	09-10	6520	MF-08
		Senior Multi-family Dwellings	5 ac			50%	25%			
SH-1	Senior Single Family Dwellings	15,000 sf	10du/gac		38%	25%	08-7	6192	MF-08	
	Senior Multi-family Overlay	5 ac			50%	25%				
Mixed-Use	RP	Single Family Dwellings	22,500 sf			50%	30%			MU-0
		Bus/Prof Off & Financial Inst	22,500 sf							
Commercial	HC	Retail and Service								
		Bus/Prof Off & Financial Inst	10 ac	8du/ac		50%	30%	09-10	6520	MU-08
	NC	Restaurants								
		Retail and Service	22,500 sf			65%	40%	09-10	6520	C-12.5
Industrial	HC	Restaurants								
		Bus/Prof Off & Financial Inst	5 ac			65%	35%	09-10	6520	C-50
	OP	Theaters								
		Motels								
Office-Business	I	Light Manufacturing								
		Sci. and Research Laboratories Prof. Admin. & Exec. Offices Planned Commercial Develop.	10 ac			65%	30%	09-10	6520	I-10
Office-Business		Institutions/Schools	5 acres				30%	Codified		OB-01
Land Use Ordinance:	Adopted 11/4/1987 (no recpt), revised through 9/15/09 (recpt 6520), last reviewed 05/13/10 (recpt 6520)									
Zoning Map:	Adopted 3/1997									
Table Print Date:	5/13/2010									

Upper Freehold

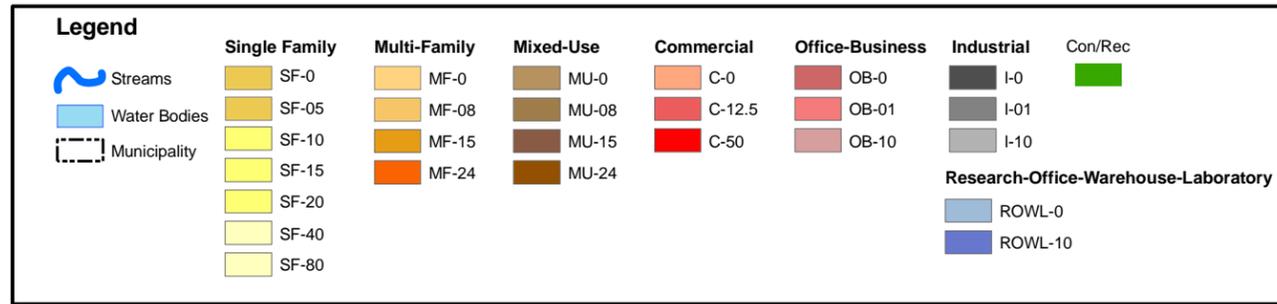
Zone District/Name	Zone ID	Principle Use	Min. Lot Area	Max. Density	FAR	Max. I.S.	Max B.C.	Ord. #	Receipt #	Composite Zone	
Single Family Residential	AR (Ag./Residential) with Farmland/Open Space Cluster (50 ac)	Detached Single Family	3 acres	0.45 du/ac*		15%	10%	120-2003	5094	SF-80	
		Agriculture	6 acres	50% of tract							
		Detached Single Family	12,000 sf	1.123 du/gac		40%	25%	87-2002	4752	SF-20	
		Age Restricted	6,600 sf	1.667 du/gac		50%	40%				
		Detached Single Family	5 acres		14%	9%	120-2003	5094	SF-80		
		Agriculture	5 acres		14%	9%					
		Detached Single Family	2 acres		15%	10%	81-410	4279	SF-80		
		Agriculture	2 acres		15%	10%					
		Conservation Areas/Open Space									
		Mixed-Use	VN (Village Neighbor.)	Detached Single Family	10,890 sf	allowed on 2nd floor of retail, office or shopping centers		40%	25%	81-406	4279
		Flats**	5 acres								
		Agriculture	10,890 sf		0.2	60%	15%				
		Retail, Service, and Offices									
	CC (Community Comm.)	Agriculture	6 acres		0.2	55%					
		Flats**		allowed on 2nd floor of retail, office or shopping centers							
		Retail and Office	1 acre		0.2	55%		81-407	4279	MU-0	
		Animal Hospitals	1 acre		0.2	55%					
		Shopping Centers	6 acres		0.25	55%					
	HD (Highway Develop.)	Agriculture	6 acres		0.2	55%					
		Flats**		allowed on 2nd floor of retail, office or shopping centers							
		Retail and Office	1 acre		0.2	55%		81-407	4279	MU-0	
		Funeral Homes	1 acre		0.2	55%					
		Research and Warehouse	1 acre		0.2	55%					
		Shopping Centers	6 acres		0.25	55%					
Industrial	ROM	Agriculture	5 acres		0.175	40%					
		Research Laboratories	5 acres		0.175	40%					
		Limited Manufacturing	5 acres		0.175	40%		81-408	4279	I-01	
		Hotels and Motel	5 acres		0.175	40%					
		Research, Office, Manufact. Parks	3 acres		0.175	40%					
		Research, Office, and Manufact.	3 acres		0.2	40%		81-409	4279	I-01	
		Warehousing and Assembly	3 acres		0.2	50%					
		Research, Office, Lab	5 acres		0.25	60%					
		Warehouses	3 acres		0.25	60%					
		Motels/Hotels	3 acres		0.30	60%		117-2003	5083	I-01	
Corporate Complexes	20 acres		0.25	60%							
Child Care Centers	1 acre		0.125	37.5%							

Note: * In the Farmland/Open Space cluster provision for the AR zone, the maximum density is 0.334 du/ac with a 35% density bonus if at least 50% of the tract is preserved for farmland or open space. This yields a 0.45 du/gac density.

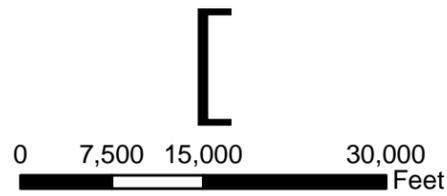
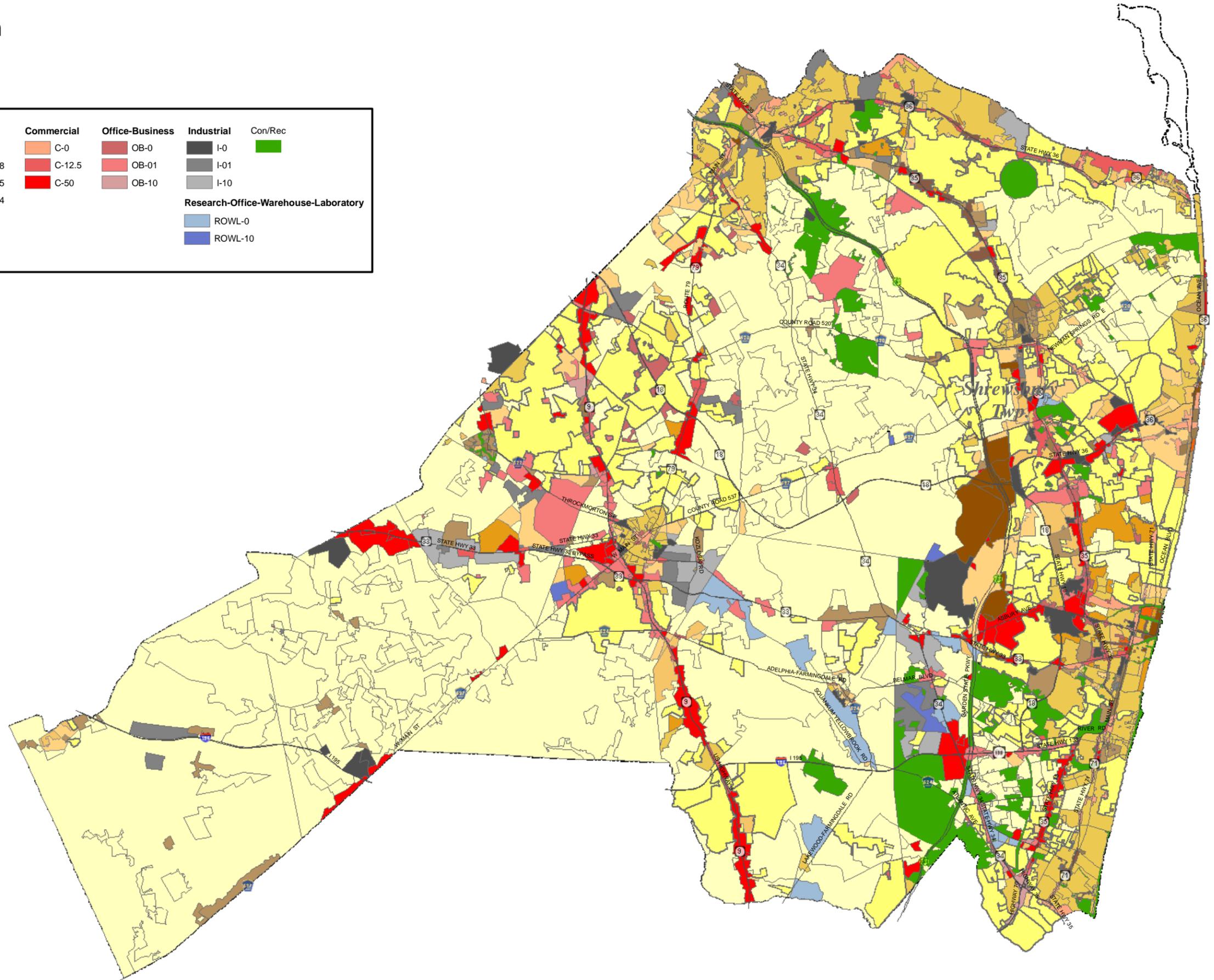
Note: ** Flats in Mixed Use zones are permitted as a 2nd floor use and when built, they can be the only 2nd floor use. Therefore, flats represent 50% of the allowable FAR. Minimum flat size is 500SF of habitable area. Assume 10% of the floor area is not habitable (stairs, halls, etc.).

Land Use Ordinance:	11/27/1997	rev. through 02/08/05 (recept 5325), last reviewed 12/15/06 (recept 5899)
Zoning Map:	2/1/1998	
Table Print Date:	12/15/2006	

Monmouth County Wastewater Management Plan Composite Zone Map



Composite Zone by Category	
Commercial	Minimum lot area (square feet)
C-50	50,000
C-12.5	12,500-49,999
C-0	0- 12,499
Industrial	Minimum lot area (acres)
I-0	Under one acre
I-01	1.0 – 9.9
I-10	10+
Multi-Family	Dwelling units (d.u.) per gross acre (gac)
MF-0	0-8.0
MF-08	8.1-15.0
MF-15	15.1-24
MF-24	24.1+
Office/Business	Minimum lot area (acres)
OB-0	Under 1 acre
OB-01	1.0-9.9
OB-10	10.0+
Research/Office/Warehouse/Labs	Minimum lot area (acres)
ROWL-0	Under 10 acres
ROWL-10	10.0+
Single Family	Minimum lot size (square feet)
SF-80	80,000+
SF-40	40,000-79,999
SF-20	20,000-39,999
SF-10	10,000-19,999
SF-05	5,000-9,999
SF-0	0.0-4,999



DATE: January 1, 2011
Source: MCPB, MCGIS

**NJPDES PERMIT TABLE OF INDUSTRIAL AND NON-
PROCESS WASTEWATER DISCHARGERS**

Industrial and Non-Process Wastewater Dischargers

NJPDES	PI ID	PI Name	Discharge Category Code	Outfall Designator	Receiving Stream	Receiving Stream Class	Municipality	Facility Address Line 1	City	State	Zip	Site Lot	Site Block	Permitted Flow (MGD)	Site Latitude	Site Longitude
NJ0002623	46036	LOWE'S HOME CENTER	B	003A	Husky Brook	FW2-NT(C2)	Eatontown Boro	118 RT 35 S	Eatontown	NJ	07724	6	64	0.072	40.297319	74.055634
NJ0005762	46733	OHMSETT FACILITY BLDG R24	B	001A	Sandy Hook Bay	SE1(C2)	Middletown Twp	NWS EARLE WATER FRONT RT 36	Middletown Twp	NJ	077370000			2.6	40.417075	74.070999
NJ0025453	46899	SHORELANDS WATER CO INC TREATMENT PLNT #1	B	001B	East Creek	SE1(C2)	Hazlet Twp	17 PINE KNOT AVE	Hazlet	NJ	07730	64.01	120	0.045	40.426248	74.160708
NJ0025461	46900	SHORELANDS WATER CO WATER TREATMENT PLANT #2	B	001B	East Creek (Raritan Bay)	FW2-NT(C2)	Holmdel Twp	HUNTERS LN	Holmdel	NJ	07730	29	50	0.032	40.41002	74.170626
NJ0029190	46365	FREEHOLD BOROUGH WTP	B	001A	McGellaird's Brook	FW2-NT(C2)	Freehold Twp	144 WATERWORKS RD	Freehold Twp	NJ	07728			0.002	40.275879	74.289785
NJ0031887	46581	HARBOR ROAD WTP	B	001A	Deep Run	FW2-NT(C2)	Marlboro Twp	HARBOR RD	Marlboro	NJ	077460000	26	33	0.29	40.356053	74.252407
NJ0034924	46090	ATLANTIC HIGHLANDS WTP	B	001A	Many Mind Creek	FW2-NT(C2)	Atlantic Highlands Boro	END OF LINCOLN AVE	Atlantic Highlands	NJ	07716			0.012	40.411466	74.042225
NJ0050563	46021	WL GORE & ASSOC INC - JERSEY SHORE	B	001A	Hurleys's Pond Brook	FW2-NT(C2)	Wall Twp	1746 RT 34	Wall	NJ	07719	78	942	0.0467	40.184641	74.111711
NJ0053511	47034	MSC TRAIING CTR	B	001A	Yellow Brook via onsite pond	FW2-TM(C2)	Freehold Boro	1029 HIGHWAY 33 E	Freehold	NJ	077280000	183	72	0.009	40.230558	74.201072
NJ0064386	46587	UNITED WATER MATCHAPONIX	GW	K-01			Manalapan Twp	RT 527 103 WILSON AVE	Manalapan	NJ	07726	46.01	47	0.8	40.312553	74.365718
NJ0076694	47125	JAMES J HOWARD MARINE SCIENCES LAB	B	001A	Sandy Hook Bay	SE1(C2)	Middletown Twp	MAGRUDER RD BLDG 74	Sandy Hook	NJ	07732			0.5	40.45831	74.002012
NJ0081809	47190	CHASE MANHATTAN BANK	GW	T01T			Holmdel Twp	OPERATIONS & ADMINISTRATION	Holmdel	NJ	077330000	33-34	11	0.01112	40.362696	74.187591
NJ0087301	46582	MARLBORO PSYCHIATRIC HOSP STP	GW	H01H			Marlboro Twp	RTE 520	Marlboro	NJ	07746	13	207		40.343175	74.239768
NJ0101290	46664	TNSA SEWAGE TREATMENT PLANT	GW	S01S			Neptune Twp	634 OLD CORLIES AVE	Neptune Twp	NJ	077540384	4.08	47	8.5	40.201151	74.062997
NJ0101338	46806	HOLMDEL WASTEWATER TREATMENT FACILITY	GW	P01P			Holmdel Twp	23 MAIN ST	Holmdel	NJ	07733	15	13	0.04	40.347155	74.188287
NJ0101451	46910	SOUTH MONMOUTH REGIONAL STP	GW	S01S			Wall Twp	1235 18TH AVE	Wall	NJ	077190000	17	72	8.5	40.167477	74.044516
NJ0101486	46346	PRESTONE PRODUCTS CORPORATION	GW	I01I			Freehold Boro	250 HALLS MILL RD	Freehold	NJ	077280000	6	78		40.242359	74.247029
NJ0105856	46666	NESTLE USA INC	GW	J01J			Freehold Boro	61 JERSEYVILLE AVE	Freehold	NJ	07728	4	93		40.251299	74.267432
NJ0108146	46628	MONMOUTH CNTY RECLAMATION CENTER	GW				Tinton Falls Boro	6000 ASBURY AVE	Tinton Falls	NJ	07753	19.01	131		40.248557	74.107828
NJ0115487	48251	MAZZA	GW	I01I			Tinton Falls Boro	3230 SHAFTO RD	Tinton Falls	NJ	07753	26	145		40.230331	74.109258
NJ0116165	48308	FREEHOLD CARTAGE INC	GW	001A			Freehold Boro	825 RT 33	Freehold	NJ	07728	18	43			
NJ0125130	49028	JCP&L BELMAR FORMER MFG GAS PLANT	BGR	001A	Shark River	FW2-NT/SE1(C2)	Belmar Boro	13TH AVE & RAILROAD AVE	Belmar	NJ	07719	2	137	0.0201	40.176936	74.028437
NJ0129534	47082	PINE BROOK STP	GW	S01S			Manalapan Twp	2 UTILITY RD	Manalapan	NJ	077260390	8	29		40.316846	74.355944
NJ0136301	50635	AT&T COMMUNICATIONS INC FREEHOLD FACILITY	GW				Freehold Twp	175 West Main Street	Freehold Twp	NJ	07728			0.0034		
NJG0086240	46335	EXXON SERV STA #32556	B4B	001A	Toms River	FW2-NT(C2)	Millstone Twp	CORNER RTE 537 & RTE 571	Millstone Twp	NJ	085100000	11	59		40.165258	74.41783
NJG0134929	49806	NEW JERSEY NATURAL GAS	B4B	001A	Many Mind Creek	SE1(C2)	Atlantic Highlands Boro	FOOT OF WEST LINCOLN AVE	Atlantic Highlands	NJ	077160000	10	124	0.072	40.411719	74.04153
NJG0138941	91748	OWF LLC	B4B	001B	Jumping Brook	FW2-NT/SE1(C2)	Neptune City Boro	703 OLD CORLIES AVE	Neptune City	NJ	07724			0.0288	40.203975	74.069384
NJG0145581	48401	REED AND PERRINE INC	B4B	001B	Weamaconk Creek	FW2-NT(C2)	Manalapan Twp	393 MAIN ST	Manalapan	NJ	07726	22	64	0.006	40.280838	74.330352
NJG0145963	208367	CONOCO PHILLIPS FACILITY #2634837	B4B	001D	Milford Creek	FW2-NT(C2)	Manalapan Twp	360 RT 9 N	Manalapan	NJ	07726	5	229	0.0216	40.314046	74.303979
NJG0155390	228097	LACANTINA MEXICAN RESTAURANT	B4B	001B	Shark River	SE1(C1)	Neptune City Boro	71 W SYLVANIA AVE	Neptune City	NJ	07753			0.000004	40.197853	74.030576
NJG0155811	231274	SALS AUTO REPAIR	B4B	001B	Shark River	FW2-NT/SE1(C2)	Neptune City Boro	68 W SYLVANIA AVE	Neptune City	NJ	07753			0.0216	40.196668	74.027523
NJG0156221	234346	SHELL SERVICE STATION #138291	B4B	001D	Many Mind Creek	SE1(C2)	Atlantic Highlands Boro	195 1ST AVE & RT 36	Atlantic Highlands	NJ	07716	1	106	0.0015	40.409632	74.040147
NJG0157279	241485	LUCENT TECHNOLOGIES INC	B4B	001A	Hop Brook	FW2-TM(C2)	Holmdel Twp	101 CRAWFORDS CORNER RD	Holmdel	NJ	077333030	73.01	11	0.01	40.366598	74.168332
NJG0157295	243129	NJDOT STATE HIGHWAY RT 33	B4B	001E	Wesley Lake	FW2-NT/SE1(C2)	Neptune Twp	RT 33 SECTION 9A CORRIDOR CORLIES AVE	Neptune Twp	NJ	07753			0.014		
NJG0160113	256301	GULF SERVICE STA # 204631	B4B	001D	Compton Creek	FW2-NT/SE1(C2)	Middletown Twp	412 RT 36 & WILSON AVE	Middletown	NJ	07758			0.014	40.425553	74.102918
NJG0160211	257635	CUMBERLAND FARMS FACILITY # 126458	B4B	001E	Weasel River	FW2-NT(C1)	Howell Twp	4001 RT 9 N	Howell	NJ	07731	3	54.01	0.0288	40.152791	74.229773

APPENDIX A: BUILD OUT MODEL WHITE PAPER

Monmouth County Build-Out Model

Linda J. Brennen, PP, AICP

January 2005

INTRODUCTION

In 1998, the Environmental Planning Section of the Monmouth County Planning Board undertook a study of zoning trends in the county that led to the development of the *Monmouth County Composite Zoning Study 2000*. Zoning was reviewed in 25 of the county's 53 municipalities, and categorized into composite zones. This study recognized that the next steps were to complete the categorization for the remaining 28 municipalities, assemble up to date zoning maps for all 53 municipalities, make any necessary revisions to accommodate change, and then have these maps digitized into a geographic information system. Once this was completed, a model would be developed to make build-out projections. It was anticipated that this work could be completed through funding received for the development of a county wide wastewater management plan, as this plan would provide the test case for use of this information for wastewater flow projections. In the end, the digitizing of the zoning maps was funded through the grant, but all modeling work was done internally.

Beginning in 2001 and continuing into 2002, a model was developed and refined that would project population, employment and sewerage flows. Digitizing the zoning maps into the county Geographic Information System (GIS) and updating of the zoning information were completed simultaneously during the summer of 2002 and test cases were run through the model. The model projected population growth from 1995 to 2000 for a small sample of diverse municipalities. The results were compared to the census reports. Amazingly, the projections were within 3% of the census numbers in most cases. The worst case was approximately 6% greater than the census count, but as it was a small town, the actual number was not substantially higher. The Monmouth County Planning Board accepted the model for use.

This white paper, which has been updated periodically, provides the detail that explains how the model works, how it can be applied, what factors were chosen for use and how the model has been expanded and refined over time.

MUNICIPAL ZONING

Tables were created for each municipality identifying each zone district and the applicable requirements of that zone; such as minimum lot size, maximum density, floor area ratio, building coverage, impervious coverage, and mix of uses, where applicable. Permitted uses were reviewed to determine the appropriate composite zone category. The zones were further sub-categorized in accordance with the 2000 Composite Zoning Study.

When preparing to run the model, the GIS layers are manipulated to identify vacant, developable land by municipal zone, as separate polygons. The land use/land cover GIS layer is from the 1995 NJDEP fly-over. The zoning layer has been updated over time. Adopted zoning changes through at

least December 31, 2004 were included for the final Cross Acceptance model runs. Known, undevelopable vacant lands are subtracted out, such as dedicated parkland, deed restricted farmland, and NJDEP mapped wetlands. Study area boundaries can be overlaid for specific projects and the information can be clipped. Study area boundaries can be such things as a municipal boundary, a utility franchise area boundary, or a highway corridor.

Data tables are created from the GIS layers that identified each polygon with all the accessory information that is available. These data tables are imported into Microsoft Excel workbooks and tabulated. In the first worksheet, totals are reported on the area of each zone in both square feet and acres. Both units are used to provide a cross check later on. A second worksheet is then constructed where municipal zoning requirements are used to determine the maximum amount of development that could be expected from each zone. Formulas were constructed for each zone based on that zone's adopted requirements. Since the ultimate goal of this model is to project maximum development potential in the future, whether for sizing a sewerage treatment plant or looking at the carrying capacity of a highway, the most intense development option is used in each zone that allows more than one development option.

For residential zones, the total developable area is multiplied by the maximum density, if expressed in dwelling units per acre. If density is expressed in square foot lot sizes, the maximum density is calculated after subtracting out an averaged 10% factor for such development limiting features as infrastructure. Ten percent is used as an industry standard and county Planning Board staff experience held this percentage to be reasonable for patterns generally seen in Monmouth County.

Non-residential zones (specifically those categorized as Office-Business, Research-Office-Warehouse-Laboratory, Commercial, or Industrial) often have allowable development density expressed in one of three ways: Floor Area Ratio, Impervious Coverage, or Building Coverage. However, some municipalities do not include such regulations in their zoning and others that provide only an impervious cover maximum do not specifically limit building size. During 2003, a study of the relationship between impervious cover and building cover requirements was made to assist in determining what part of the impervious cover could be assumed, on a general level, to represent the building footprint. The study further analyzed relationship patterns between coverage regulations and composite zone categories to allow for an extension of average developable building areas into zones without regulations. The study results were reported in a draft white paper issued to the Monmouth County Planning Board. That paper was titled, *Impervious Cover Study: Twenty Monmouth County Municipalities*, and was dated November 2003. Average building cover maximums by composite zone were incorporated into the projection model when the specific zoning did not provide a FAR or regulate building cover. When a FAR was given for the zone, the total developable land area was simply multiplied by the FAR. When a building cover maximum was provided, it was multiplied by the developable land total for that zone. The potential development for each zone is totaled.

Impervious cover projections are also calculated by the model for use in stormwater management planning. Where no impervious cover limit was specified in the municipal zone regulations, the average coverage noted in the impervious cover study white paper for that composite zone category was used.

Zones that allow varied forms of development are treated differently to accommodate the potential for varied development patterns. Conservation/Recreation (Con/Rec) and Mixed Use zones are examples. Some Con/Rec zones allow only recreation development and were then treated as such. However, some allow both recreational and residential development. In these cases they were treated as mixed use zones. Where the pattern of development for a mixed-use zone was known or dictated by the zoning regulations, that pattern was accounted for in the model. Where it was not known nor dictated by zoning regulations, a 50/50 split was assumed. The total developable land area was divided into residential and commercial components. The residential portion was multiplied by the applicable density factor and the commercial portion was multiplied by the applicable FAR or coverage factor.

The worksheets are modified when zoning regulations change. If the geography of the municipal zoning changes, the GIS data is rerun and the calculation tables revised or rerun, depending on the significance of the revision.

Once the individual zone developability has been calculated, totals of developable land area (in acres and square feet) and potential development (in dwelling units and/or square feet) are summed by composite zone category for further modeling.

PROJECT SPECIFIC PROJECTIONS

A second model workbook was developed that has a series of tables in several worksheets. One worksheet exists for each composite zone category to make projections by category. In the case of Con/Rec and Mixed Use zone categories, separate worksheets exist for each component of the composite zone: residential and non-residential. Factors fed into the projection model include the developable land acreage by composite zone and potential development (dwelling units and/or square footage) from the zoning workbook.

Tables within this workbook allow projections to be made to a specified study horizon year, or allow study area boundaries that are different than the municipal boundaries. Formulas are also embedded in this workbook that convert units to population and square footage of non-residential space into employees. The population and employment projections are further analyzed to project additional sewage flows. These are all examples of the project specific projections that can be made through this model.

To project to a specific horizon period, municipal development trends are required. Until 2000, the Monmouth County Planning Board prepared annual reports that provided detailed information on development activity by municipality. These reports were reviewed for the years 1991 through 2000. Yearly averages of new single family lots and multi-family dwelling units for that period in each municipality were determined. Average square feet of commercial, office, industrial and commercial recreation development were also determined for the same period for each municipality. These numbers were fed into a projection factors table and used throughout the workbook to estimate the number of years it would take to reach the build-out of each zone with vacant land. When no development occurred in one of these categories in a given municipality over the trend period, a factor of 1 dwelling unit or 10 square feet was used, and identified in the workbook. This

allowed the projection formulas to calculate without a mathematical error resulting from a factor of zero, while also assuming that the vacant land would eventually be developed or that expansion of current non-residential uses could occur where the land was available. Furthermore, use of these factors and the choice of a specific horizon period allowed the development of tables that could make projections for that chosen horizon year. For example, if a 20 year study period was chosen in 2002, the horizon date would be projected into the future 20 years: 2022. Projections for the horizon year are provided by multiplying the annual average development factors by the number of years it takes to get to the horizon from the base data year (e.g. assuming 1995 land use/land cover, multiply by 27 years). If/Then statements were embedded in the horizon projection tables to prevent projections that would exceed the possible growth allowed by zoning at build-out.

In 2004 more recent data became available that would allow the trend averages to be updated. Several municipalities, during the Cross Acceptance meetings, expressed a desire to have more recent trends used, as they felt that the development trends they had experienced during the 1990's had changed. The new data was analyzed and a 7 year trend average was calculated for the period 1997-2003. The model was revised to recalculate for all municipalities using these development trends.

For employment estimates, factors of employees per 1000 square feet were originally taken from the Trip Generation Handbook prepared by ITE. This handbook was used because it is an acceptable industry standard that employed a number of available studies to determine specific employment quantity relationships to various uses. For each composite zone category, the ITE use or uses that most closely resembled the make-up of the composite zone provided the applicable employment factors. Where more than one use was applicable, the factors were averaged. Each table that projects employment clearly identified the ITE employment factor or factors applied for that category. In December 2004 the Council on Affordable Housing (COAH) released *Chapter 94, Substantive Rules of the New Jersey Council on Affordable Housing for the Period Beginning Dec. 20, 2004*. In these rules COAH staff included Appendix E, which provided projection factors of employees per 1000 sq. ft. for various uses. Since new numbers were now available specifically for use in New Jersey, the model was immediately revised to substitute the COAH factors for the ITE factors and new runs were prepared for all 53 municipalities as part of the process of Cross Acceptance of the state plan. All model runs after December 3, 2004 used the COAH factors for employment projections.

The workbook is formatted to produce projections by municipality, as several of the factors used are provided on a municipal basis, such as the census person per household ratio used to calculate projected population. The model can, however, be used to estimate change in a part of a municipality, rather than the whole, simply by using a study area boundary when developing the GIS clip and applying ratios related to the developable part of the zone within the study area compared to the overall developable acres of that zone in the municipality.

Summary tables are provided that gather together the additional sewerage flow, population and employment estimates for the horizon year and at build-out. These numbers can be added to base flow, base population, and base employment figures from the year of the data. For example, when using data from the 1995 fly-over, these additional figures need to be added to 1995 base figures.

WORKBOOK REFINEMENTS OVER TIME

The workbooks continue to be further refined, as new information comes to light about the base data. Initial problems with how the raw data was assembled caused a double-counting in some parts of the county, leading to false predictions. It was later discovered that undeveloped parkland was considered developable within the raw data. This was corrected by overlaying municipal parks GIS layers, where available, and recalculating the raw data. Occasionally, large forested highway medians were included as developable parcels. When found, these were removed.

The model can be further manipulated to add new areas for projection. It is possible that HUC 14 data can be included in the future to allow impervious cover projections by HUC 14 subwatersheds so the county could provide this information for the municipalities that require it for their municipal stormwater management plans or for regional stormwater management plans. Trip generation is another area that will be investigated for future addition to the model projection capabilities. However, the land use/land cover data currently available will soon be 10 years old. Unless newer land use/land cover data becomes available to the county Planning Board in the near future, the ability to use the projection model with confidence will be severely limited.

**APPENDIX B: MUNICIPAL STORMWATER
MANAGEMENT PLANS**

Municipal Stormwater Management Plans

Municipality	Original Submission	Final Approval
Aberdeen Township	10/11/2005	5/16/2011
Allenhurst Borough	3/28/2007	3/16/2009
Allentown Borough	12/6/2006	12/17/2007
Asbury Park City	10/20/2006	5/19/2008
Atlantic Highlands Borough	1/11/2007	12/17/2007
Avon-By-The-Sea Borough	9/25/2006	4/21/2008
Belmar Borough	5/28/2008	7/20/2009
Bradley Beach Borough	5/8/2006	6/20/2011
Brielle Borough	6/13/2006	6/18/2007
Colts Neck Township	4/28/2006	5/19/2008
Deal Borough	3/28/2007	10/20/2008
Eatontown Borough	2/5/2007	7/21/2008
Englishtown Borough	7/3/2006	4/16/2007
Fair Haven Borough	12/14/2007	10/20/2008
Farmingdale Borough	6/6/2007	1/20/2009
Freehold Borough	1/3/2008	1/20/2009
Freehold Township	3/22/2006	12/18/2006
Hazlet Township	4/13/2006	2/20/2007
Highlands Borough	2/26/2007	11/19/2007
Holmdel Township	3/10/2006	8/21/2006
Howell Township	6/28/2006	11/17/2008
Interlaken Borough	1/4/2008	3/16/2009
Keansburg Borough	5/16/2006	3/16/2009
Keyport Borough	2/11/2008	4/20/2009
Lake Como Borough	11/7/2007	6/16/2008
Little Silver Borough	1/23/2007	10/20/2008
Loch Arbour Village	4/27/2007	12/15/2008
Long Branch City	5/2/2008	10/19/2009
Manalapan Township	9/11/2006	11/17/2008
Manasquan Borough	10/12/2006	5/18/2009
Marlboro Township	3/31/2006	11/20/2006
Matawan Borough	10/10/2006	10/15/2007
Middletown Township	10/26/2006	10/15/2007
Millstone Township	11/22/2005	8/18/2008
Monmouth Beach Borough	1/30/2007	1/22/2008
Neptune City Borough	1/23/2007	12/15/2008
Neptune Township	11/22/2005	10/19/2009
Ocean Township	3/23/2007	9/21/2009
Oceanport Borough	3/25/2008	9/21/2009
Red Bank Borough	10/12/2006	10/15/2007
Roosevelt Borough	8/23/2005	3/20/2006
Rumson Borough	1/6/2006	10/16/2006
Sea Bright Borough	1/22/2007	10/15/2007
Sea Girt Borough	4/27/2007	1/20/2009
Shrewsbury Borough	1/6/2006	3/20/2006
Shrewsbury Township	11/26/2007	11/17/2008
Spring Lake Borough	2/24/2006	10/15/2007
Spring Lake Heights Borough	5/4/2006	2/20/2007
Tinton Falls Borough	3/17/2006	11/15/2010
Union Beach Borough	3/30/2006	3/19/2007
Upper Freehold Township	3/31/2006	8/18/2008
Wall Township	8/20/2007	2/16/2010
West Long Branch Borough	3/21/2007	3/17/2008

APPENDIX C: RIPARIAN CORRIDOR PROTECTION
ORDINANCES

Riparian Corridor Protection Ordinances

	Municipality	Ordinance No.	Adoption Date	Letter stating no riparian corridors
1	Aberdeen Township			
2	Allenhurst Borough			
3	Allentown Borough			
4	Asbury Park City	--	--	5/11/2010
5	Atlantic Highlands Borough			
6	Avon-By-The-Sea Borough			
7	Belmar Borough			
8	Bradley Beach Borough			
9	Brielle Borough			
10	Colts Neck Township			
11	Deal Borough			
12	Eatontown Borough	16-2010	8/25/2010	
13	Englishtown Borough			
14	Fair Haven Borough			
15	Farmingdale Borough			
16	Freehold Borough			
17	Freehold Township	0-10-13	7/27/2010	
18	Hazlet Township			
19	Highlands Borough			
20	Holmdel Township	2010-22	8/19/2010	
21	Howell Township			
22	Interlaken Borough			
23	Keansburg Borough			
24	Keyport Borough			
25	Lake Como Borough			
26	Little Silver Borough			
27	Loch Arbour Village			
28	Long Branch City			
29	Manalapan Township			
30	Manasquan Borough			
31	Marlboro Township			
32	Matawan Borough			
33	Middletown Township			
34	Millstone Township	10-18	7/7/2010	
35	Monmouth Beach Borough			
36	Neptune City Borough			
37	Neptune Township			
38	Ocean Township			
39	Oceanport Borough			
40	Red Bank Borough			
41	Roosevelt Borough			
42	Rumson Borough			
43	Sea Bright Borough	--	--	7/2/2010
44	Sea Girt Borough			
45	Shrewsbury Borough	--	--	5/27/2010
46	Shrewsbury Township			
47	Spring Lake Borough			
48	Spring Lake Heights Borough			
49	Tinton Falls Borough			
50	Union Beach Borough			
51	Upper Freehold Township			
52	Wall Township			
53	West Long Branch Borough			

APPENDIX D: STREAM CLASSIFICATIONS

Appendix D Stream Classifications

N.J.A.C. 7:9B, Surface Water Quality Standards

(For further information, please reference this legislation)