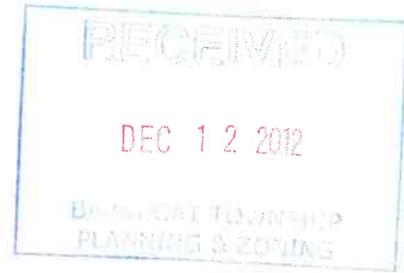




**BIRDSALL SERVICES GROUP**  
ENGINEERS & CONSULTANTS



# Stormwater Management Reexamination Report

*For:*

***TOWNSHIP OF BARNEGAT, OCEAN COUNTY, NJ***

*Adopted by:*

***TOWNSHIP OF BARNEGAT PLANNING BOARD***

***NOVEMBER 2012***

*Prepared by*

***John J. Hess, P.E., P.P., C.M.E.***

*New Jersey Professional Engineer License No. 31199  
New Jersey Professional Planner License No. 03467*

***Sanyogita S. Chavan, P.P., A.I.C.P.***

*New Jersey Professional Planner License No. 05933  
Original is sealed*

529 North Main Street  
Barnegat, NJ 08005  
Phone: (609) 698-1144 Fax: (609) 698-6814

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## I. Introduction

The New Jersey Municipal Land Use Law (MLUL) in Section 40:55D-93 requires that a municipality regularly re-examine a prepared Stormwater Management Plan and associated stormwater control ordinances adopted to implement the prepared Plan. Birdsall Services Group (BSG) has been retained by the Township of Barnegat to prepare a Stormwater Re-examination Report to satisfy the MLUL requirements and to assist the Township in evaluating its current and projected needs. Pursuant to the criteria set forth within Section 40:55D-89 of the MLUL this Report will include the following information:

- A summary of major problems and objectives relating to stormwater management in Barnegat Township at the time of the adoption of the previous Municipal Stormwater Management Plan and Stormwater Ordinance.
- The extent to which such problems and objectives have been reduced or have increased subsequent to such date.
- The extent to which there have been changes in the assumptions, policies and objectives of the Stormwater Management Plan.
- The specific changes and amendments recommended for the Stormwater Management Plan and Stormwater Ordinance.

The Township of Barnegat adopted a draft stormwater plan in March 2005 along with its stormwater ordinances in April 2006 in accordance with the NJDEP Municipal Separate Storm Sewer System (MS4) regulations and permits which were promulgated in February 2004. As the authorized agency pursuant to the NJDEP MS4 regulations, the County reviewed the plan and ordinance documents and issued a deficiency letter in June 2006 with a subsequent letter dated November 28, 2007 outlining the requested changes. The Township of Barnegat revised the Plan as per the County's recommendations and submitted the same to the Pinelands Commission and Ocean County for approval, which was granted on May 9, 2008. Subsequently the Township of Barnegat adopted the revised Stormwater Management Plan on July 22, 2008 henceforth referred to as the "2008 Stormwater Management Plan;" and the Statement of Objectives, Land Use Plan, Circulation Plan and Historic Preservation Plan Elements of the Master Plan on April 26, 2011, henceforth referred to as the "2011 Master Plan." This Report analyzes the 2008 Stormwater Management Plan and the 2011 Master Plan along with the ordinances to recommend any required amendments. Additionally, BSG will identify major projects and planning efforts and assess their potential impacts of development upon the Township's stormwater management infrastructure.

## II. Major Problems and Objectives relating to stormwater management at the time of adoption of the Municipal Stormwater Management Plan and Master Plan

The first provision of N.J.S.A. 40:55D-89 of the MLUL requires that the Re-examination Report shall include:

“The major problems and objectives relating to land development in the municipality at the time of adoption of the last re-examination report.”

The 2008 Stormwater Management Plan set forth the following goals:

1. Reduce flood damage, including damage to life and property.
2. Minimize, to the extent practical, any increase in stormwater runoff from any new development.
3. Reduce soil erosion from any development or construction project.
4. Assure the adequacy of existing and proposed culverts, bridges and other in-stream structures.
5. Maintain groundwater recharge.
6. Prevent, to the greatest extent feasible, an increase in nonpoint pollution.
7. Maintain the integrity of stream channels for their biological functions, as well as for drainage.
8. Minimize pollutants in stormwater runoff from new and existing development to restore, enhance and maintain the chemical, physical and biological integrity of the waters of the state, protect public health, safeguard fish and aquatic life and scenic and ecological values, enhance the domestic, municipal, recreational, industrial and other uses of water.
9. Minimize pollutants in stormwater runoff from new and existing development to protect public safety through the proper design and operation of stormwater basins.

The 2008 Stormwater Management Plan noted the following challenges within the Township of Barnegat:

1. NJDEP’s Ambient Biomonitoring Network (AMNET) documents the health of the State’s waterways by sampling for benthic macroinvertebrates. Based upon the AMNET data, streams are classified as “non-impaired,” “moderately impaired,” or “severely impaired.” There are over 800 AMNET sites throughout the State; of which only one (1) site is located in Barnegat Township. The site, located on the Oswego River at Route 539, is classified as moderately impaired for benthic macroinvertebrates.

2. Apart from the site mentioned above, there were various sites on three additional water bodies in Barnegat Township namely the Double Creek Estuary, Barnegat Bay and Barnegat Bay Coastal Tributaries are listed as impaired with total coliform as per NJDEP's 2004 Integrated List of Waterbodies. The 2008 Plan noted that the Township did not have development conditions or uses within the above estuaries that traditionally contribute to total coliform exceedance such as agricultural farms, malfunctioning septic systems, etc.
3. Brighton at Barnegat and Pinewood Estates are two mobile home parks in Barnegat Township, which are located within the Pinelands Area. These have been served by septic systems and that the Township had contacted the Pinelands Commission regarding the feasibility of serving these developments with Public Sewer. Public Sewerage of these areas would likely result in significant decreases in coliform counts within these areas.
4. Barnegat Township intended to address stormwater point sources through existing Best Management Practices (BMPS) of the MS4 program as practicable and in accordance with its MS4 permit obligations.
5. The Township had adopted wildlife feeding and pet waste ordinances which are enforced by the Township. In addition, the Township intended to implement geese control measures.
6. The 2008 Stormwater Plan also set forth the following recommendations:
  - a. Enforcement of local No Discharge Zone, including Barnegat Bay.
  - b. Endorsement of Clean Marina Programs.
  - c. Marina Best Management Practices such as providing and managing Marina pump out facilities, etc.
  - d. As part of the Township's Municipal Separate Storm Sewer Permit, as outlined in its Stormwater Pollution Prevention Plan, existing inlets and stormwater management facilities are inspected annually and repairs / maintenance are made. Any existing identified water quantity and erosion problems are assessed and abated to the maximum extent practicable.
  - e. All future major development will be in compliance with the NJDEP Stormwater design standards as set forth within NJAC 7:8, including average annual recharge.

The Township of Barnegat adopted an Environmental Resource Inventory in March 2009, which identifies the following issues within the Township:

1. As per NJDEP's Known Contaminated Sites GIS data for the year 2008, there are seven (7) contaminated sites documented within Barnegat Township. These include two (2) marinas, Bob's Bay Marina and Sun Harbor Marina, the Edwin B. Forsythe NWR (Barnegat Refuge), Plaza Dry Cleaners, and three private homes.

**Table 1: NJDEP Site Remediation Program Active and Pending Contaminated Site Inventory in Barnegat Township**

<b>Active Sites with Confirmed Contamination</b>			
<b>Site ID (Master File)</b>	<b>PI Number</b>	<b>PI Name</b>	<b>Line Address</b>
368935	456409	112 Winward Drive	112 Winward Dr.
371796	460125	12 Maple Avenue	12 Maple Ave.
224231	292684	12 Spar Court	12 Spar Ct.
369612	457360	139 Barnegat Boulevard	139 Barnegat Blvd.
365435	451712	14 Midway Court	14 Midway Ct.
364100	449921	151 Windward Drive	151 Windward Dr.
222140	290118	175 Village Drive	175 Village Dr.
221851	289750	38 Schooner Avenue	38 Schooner Ave.
352176	434658	4 Bilge Avenue	4 Bilge Ave.
363876	449648	4 Ensign Avenue	4 Ensign Ave.
358004	442667	56 Georgetown Boulevard	56 Georgetown Blvd.
364558	450507	6 9th Street	6 9th St.
357718	441747	69 Windward Drive	69 Windward Dr.
362353	447523	972 West Bay Avenue	972 W Bay Ave.
15692	12028	Bobs Bay Marina	459 E Bay Ave.
15149	6729	Cumberland Gulf 126433	334 S Main St.
15157	G000037604	Plaza Dry Cleaners	580 N Main St.
15158	26923	Sun Harbor Marina	451 E Bay Ave.
<b>Pending Sites with Confirmed Contamination</b>			
<b>Site ID (Master File)</b>	<b>PI Number</b>	<b>PI Name</b>	<b>Line Address</b>
195597	256834	1092 West Bay Avenue	1092 W. Bay Ave.
375642	465563	23 Village Drive	23 Village Dr.
178018	233278	44 Bowline Street	44 Bowline St.
200667	263987	92 Barnegat Boulevard	92 Barnegat Blvd.
65994	G000000007	Edwin B. Forsythe NWR (Barnegat Refuge)	700 W. Bay Ave.

Source: NJDEP Site Remediation Program Active Sites With Contaminated Contamination, prepared 5/9/2008  
 NJDEP Site Remediation Program Pending Sites With Contaminated Contamination, prepared 5/9/2008

As depicted in Table 1, above, the inventory identified 18 known contaminated sites with active remediation and five (5) contaminated sites with pending confirmation. Additionally, there are 154 sites located within the Township that have been remediated.

2. The majority of Barnegat Township is serviced by the Barnegat Township Water and Sewer Department. The Township water and sewer department complies with the Safe Water Drinking and Water Allocation requirements of the NJDEP. The Township acquires its drinking water supply from seven (7) public supply wells.
3. The groundwater for Barnegat is sourced from the Atlantic City 800-foot sand aquifer. The USGS Report entitled "Simulation of proposed increases in groundwater withdrawals from the Atlantic City 800-foot sand, New Jersey Coastal Plain" indicates that water from the updip area of the Pinelands reportedly had been intruding into the 800-foot sand aquifer. Approximately sixty-three percent (63%) of the groundwater that infiltrates into the Township of Barnegat's wells originate from the Pinelands aquifer and twenty-seven percent (27%) from the Kirkwood-Cohansey Aquifer. However NJDEP has assessed Ocean County as having adequate water supplies, which was indicated by the adequacy of the County's watersheds during the period of severe drought in 2002.
4. As a preventive measure the Township of Barnegat has implemented water restriction requirements within its ordinance as listed below:
  - a. Code Section 74-21.2 regulates outdoor water use by giving the Township the power to revoke it if determined that the supply of water is too low and setting forth dates and times for usage.
  - b. Code Section 74-21.3 regulates the dates and times for outdoor water use/irrigation restrictions for residences, houses or other structures with even and odd street numbers.
5. As of January 1, 2009, the municipal sewer system in Barnegat Township had 6,654 connections (customer households); 77 miles of sewer mains, 43,824 feet of force mains and 15 pump stations in addition to any privately owned and operated sewage pumping stations. The Township does not contain a sewage treatment plant. All sewage is sent to the Ocean County Utilities Authority (OCUA) for treatment prior to discharge into the Atlantic Ocean. The Township of Barnegat is in discussions with the NJDEP and Ocean County planning staff regarding the extent of sewer service within its boundaries.

The Township of Barnegat adopted the Statement of Objectives, Land Use Plan, Circulation Plan and Historic Preservation Plan Elements of the Master Plan on April 26, 2011. The following section identifies the following Land Use issues that are relevant to stormwater issues within the Township:

1. Goal I: To maintain the existing quality of life in Barnegat Township by encouraging a balance of appropriate residential and non-residential land uses, by providing guidelines for the fostering of historic preservation and recreational facilities to meet the needs of all residents.
  - a. Objective f: To regulate development along the shoreline of Barnegat Bay in order to ensure continuing recreational access to the Bay by Township residents.
  - b. Objective h: To adopt a landscaping ordinance for the portion of the Township located under the purview of the Pinelands Comprehensive Management Plan.
  
2. Goal II: To promote sustainable or “green” design and development in order to achieve a more environmentally and socially responsible, healthy, and prosperous environment that improves the quality of life for Barnegat Township residents.
  - a. Objective a: To adopt a Green Building and Environmental Sustainability Plan Element of the Master Plan, which encourages the efficient use of natural resources and the protection of ecosystems, consideration of the impact of buildings on the local, regional, and global environment, conservation and reuse of water, treatment of storm water on-site, and the optimization of sustainability through site orientation and design.
  - b. Objective b: To update the Township’s land use ordinance to encourage development applications that incorporate sustainable development design, methods, materials and practices.
  - c. Objective c: To encourage and implement the use of solar and wind energy and other alternative energy methods and resources to satisfy the energy needs of the Township and its residents.
  - d. Objective d: To perform energy audit to pinpoint areas where energy is being used inefficiently and to identify ways to increase the efficiency while reducing operating costs.
  
3. Goal III: To protect the environmental quality of the Township's natural resources in order to preserve the balance of its ecological systems and safeguard the future health and welfare of its residents.
  - a. Objective a: To encourage the preservation of all environmentally sensitive lands within the entire Township.
  - b. Objective b: To encourage the protection of all wetlands areas in the Township in accordance with the provisions of the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A) and, where applicable, the Coastal Area Facility Review Act (CAFRA).

- c. Objective d: To adopt a riparian zone ordinance in order to help protect riparian areas located along surface waterbodies and protect and enhance the water quality of these waterbodies.
- d. Objective e: To adopt a wellhead protection ordinance in order to more closely regulate permitted uses within wellhead protection areas and help prevent the migration of potential pollutants into the groundwater of wells located within these areas.
- e. Objective f: To update the Environmental Review Ordinance, Section 55-148(E), to bolster existing environmental impact statement requirements.
- f. Objective g: To consider removing uses associated with large areas of disturbance from the list of uses currently permitted within the Preserved Waterfront (PW) Zone ordinance.
- g. Objective h: To adopt a steep slope ordinance in order to regulate the development on areas containing steep slopes and minimize the potential for erosion, soil failure, stream siltation, and contamination of surface waters caused by the misuse of steep slope areas.

### III. Extent to which such problems and objectives have been reduced or increased

The second provision of 40:55D-89 of the MLUL requires that the Reexamination Report address:

*“The extent to which such problems and objectives have been reduced or have increased subsequent to such date.”*

The Township of Barnegat contains a significant amount of environmental constraints including an extensive wetlands complex along its eastern boundary, other scattered wetlands areas, Category One streams, threatened and endangered species and wellhead protection areas. Additionally, the entire land area located to the east of the Garden State Parkway is under the purview of the Coastal Area Facility Review Act (CAFRA) while the entire land area to the west of the Garden State Parkway is under the purview of the Pinelands Comprehensive Management Plan. A significant portion of the CAFRA area also contains the Edwin B. Forsythe National Wildlife Refuge. Therefore the combination of the regulatory and environmental constraints severely limits the amount of developable land within the Township. Regulated activities proposed within the Township must comply with State and Federal regulations including the Flood Hazard Area Control Act Rules, the Coastal Zone Management Rules, the Freshwater Wetlands Protection Act, the Pinelands Comprehensive Management Plan and other regulations.

The Township of Barnegat currently has the following environmental ordinances in effect.

1. Section 55-126.6, Floodplain Regulations, discusses the implementation of the land use rules and regulations promulgated by the NJDEP for floodways and the flood-fringe portion of a flood hazard area.
2. Section 55-126.9, Shade Trees, sets forth the standards for planting trees throughout the entire Township.
3. Section 55-162.2, Landscaping, sets forth the standards for landscape requirements to the east of the Parkway, including standards for open space areas and plantings for detention basins.
  - a. Paragraph E sets forth standards for open space, wherein it is encouraged that open space areas be included in all developments. This section recommends a preservation open space in areas adjacent to and inclusive of wooded areas, wetlands, and streams, etc. and a recreational open space comprised of lands for active and passive recreation.

- b. Paragraph J requires all land development plans to identify and locate potential historic resources as well as natural amenities, such as specimen trees, waterbodies, streams, wetlands, and groves of trees.
  - c. Paragraph L regulates the clearing and protection of vegetation in order to maximize the opportunity to incorporate significant areas of existing vegetation into the design of the development and to minimize damage to vegetated areas.
  - d. Paragraph M sets forth the standards to preserve and protect specimen trees. Specimen trees include the largest known individual trees of each species in the State of New Jersey as included on the list of said trees maintained by the NJDEP Bureau of Forestry, and the Shade Tree Commissions of Ocean County and Barnegat Township.
4. Section 55-162, Buffers, mandates the preservation of natural wooded tracts as an integral part of all site plans and requires that these tracts be calculated as part of the required buffer area. Additionally, Section 55-162 includes reforestation of stormwater management areas as a design option, which creates a revegetated natural stormwater management asset over time. Indigenous species are required to be utilized in the reforestation design. Further, this Ordinance includes measures for selective clearing and protection of vegetation and the preservation of specimen trees.
  5. Section 55-295, Vegetation, Landscaping and Screening, regulates cutting trees and precludes clearing wooded areas, including New Jersey's Record Trees as published by the NJDEP. The ordinance requires that existing vegetation be incorporated into the landscape design where practical.

Additionally the Township of Barnegat has adopted the following ordinances

6. A Fertilizer Application Ordinance to regulate the outdoor application of fertilizer so as to reduce the overall amount of excess nutrients entering waterways and hence enabling the protection and improvement of surface water quality. It should be noted that this ordinance is not applicable to commercial farms but that it is expected that commercial farmers implement best management practices in accordance with conservation management plans or resource conservation plans developed for the farm by the Natural Resource Conservation Service and approved by the Soil Conservation District Board.
7. Riparian Ordinance adopted pursuant to Water Pollution Control Act, NJSA 58:10A-1 et. seq., Water Quality Planning Act, NJSA 58:11A-1 et. seq., Spill Compensation and Control Act, NJSA 58:10-23 et. seq., Soil Erosion and Sediment Control Act, NJSA 4:24-39 et. seq. and Flood Hazard Area Control Act, NJSA 58:16A-50 et. seq. As the riparian areas within the Pinelands section are under the

purview of the Pinelands Comprehensive Management Plan, this ordinance was adopted to designate riparian zones and to provide for land use regulation in order to protect the streams, lakes and other surface water bodies within the portion of Barnegat Township located outside of the Pinelands Area. The purpose of this ordinance is to protect the water quality of watercourses, reservoirs, lakes and other significant water resources, to protect the riparian and aquatic ecosystems, to provide for the environmentally sound use of the land resources and to complement existing state, regional, county and municipal stream corridor protection and management regulations and initiatives.

8. An Environmental Impact Statement Ordinance was adopted which amended and supplemented Section 55-117D(2) entitled "Environmental Review" to be more comprehensive and to increase its influence on development within the Township. This ordinance requires a Report assessing the environmental impacts of a development project in terms of geology, topography, aquifer / water supply, stormwater management plan, surface water quality and stream corridor protection, wastewater management, floodplains, soils, steep slopes, wetlands, vegetation, wildlife, aquatic biota, Threatened and Endangered species, air quality, environmental contamination etc., and summarizing potential adverse environmental impacts and measures to mitigate the same.
9. Steep Slope Ordinance adopted to regulate the intensity of use in areas of steeply sloping terrain in order to limit soil loss, erosion, excessive stormwater runoff, the degradation of surface water and to maintain the natural topography and drainage patterns of land.
10. A Wellhead Protection Ordinance was adopted, which amended Chapter 55, in the interest of safeguarding the drinking water sources within Barnegat Township as protection of water resources is an objective of the New Jersey Development and Redevelopment Plan as well as New Jersey Source Water Assessment Plan, developed pursuant to the Federal Safe Drinking Water act. The ordinance established an overlay zone that prohibited uses such as gasoline, automobile or motorized vehicle service stations, repair garages and shops; automobile or motorized vehicle body shops; heavy manufacturing uses; land application or wastewater and sludge; new and used automobile and motor vehicle sales and service; quarries and mining operations; underground petroleum or chemical storage; storage of any hazardous or regulated material; collection and transfer facilities or parking or storage of vehicles used for hazardous materials, solid wastes that contain hazardous materials or radioactive materials; contractor's storage yards; dry cleaners; outdoor road salt stockpiles; and subsurface sewage disposal systems
11. Barnegat Township has worked with the Office of Planning Advocacy, the New Jersey Department of Environmental Protection and other State entities in order to

delineate a new Town Center boundary to replace the Barnegat Coastal Town Center designation that expired on February 7, 2005. The Town Center area is developed and zoned for a variety of commercial and residential uses. On December 7, 2011, Township received Initial Plan Endorsement and Town Center and Core designation from the State and in accordance with the Planning and Implementation Agreement (PIA) adopted by the State Planning Commission adopted revised parking standards, which permitted shared parking provisions and share parking agreements between different businesses in the Town Center as well as Commercial Core.

Township intends to apply to the NJDEP for a Waiver from this rule upon the enactment of the Rule Proposal "Waiver of Department Rules", N.J.A.C. 7:1B.

A Water Allocation Permit issued to Barnegat Township that became effective on August 1, 2009 outlines the limit requirements for all of the wells. According to the permit the maximum amount of water that may be pulled from all of the wells in Barnegat (including Well 9) is 5,800 gallons per minute, or 154 million gallons per month and 1,162 million gallons per year. In addition, in order to provide additional backup pumping capacity, the Township plans to construct a future well (a/k/a "Well 10"). Currently, Well 10 is in the planning stages, and has been preliminarily cited to be located near the western boundary of the water service area near Pancoast Road. Well 10 will provide for more flexibility for operations when any of the other wells are down for maintenance purposes.

In 2006 the NJDEP approved an increase in water allocation from 400.9 million gallons per year to the current levels of 1,162 million gallons per year. However, water consumption records indicate the actual annual diversion has not increased significantly. Although there has been a significant increase in the population, the annual diversion has only increased from 635.1 million gallons per year in 2006 to 764.5 million gallons per year in 2010, representing an increase of 20.37 percent.. This is well below the existing permitted diversion allocation of 1,162 million gallons per year and also well below the NJDEP's projected water usage for Barnegat Township of 900 million gallons per year.

Based on the current Census data and NJTPA estimates, the population of the Township is estimated to grow 15.97% between 2010 and 2025, representing a great reduction over the growth rate experienced between 1970 and 2010. Additionally, the Township expects more commercial development in the future relative to residential as majority of the large vacant properties are located within commercial zones. As is stated above, Barnegat drew 764.5 million gallons of water in 2010, which is 2.094 million gallons per day (gpd). Applying a 15.97 percent increase (reflective of the estimated population increase noted above) to current water usage results in an projected increase to 2,428,464 gpd, or 886,609,668 gallons per year. Therefore, the projected water usage in 14 years from now (886,609,668 million gallons per year) will still be well below the allocated 1,162 million gallons per year. From this analysis, it is clear that the estimated population growth will not cause the water usage to increase above the permitted allocation of water.

It is important to note that water allocation for residential uses is based upon an assumed average of 300 gpd per residential unit (N.J.A.C 7:14A-23.3 Projected

flow criteria – 3 bedroom unit or larger). As per N.J.A.C 7:14A-23.3, water usage rates for similar age-restricted housing units average only 225 gpd. As Barnegat Township has a higher population of senior citizens as compared to both the Statewide and Countywide populace, the large amount of age-restricted housing associated with this segment of the population should require less water than similar family units. Therefore, the allocation identified above which is based upon the 300 gpd figure is an overestimation of the water usage within the Township. This finding further demonstrates that the Township has water capacity that is more than adequate to satisfy projected future population growth through the 2025 time horizon.

### C. Reinstatement of the Town Center and Other Development Activity

Work was completed on the Garden State Parkway exit 67, which consists of a newly constructed southbound entrance ramp and a northbound exit ramp as well as widening the West Bay Avenue overpass. The widening of the West Bay Avenue overpass consisted of expanding the bridge from two lanes to five lanes. A stormwater basin associated with this construction activity has been installed, which addresses any stormwater run-off generated due to the increase in impervious surfaces created with this activity. Additionally, there has been development along Lighthouse Drive consisting of a CVS Pharmacy and a WAWA store, which would add to the stormwater run-off and has been provided with necessary stormwater management facilities in compliance with the NJDEP Municipal Separate Storm Sewer System (MS4) regulations.

The Township is in the process of reinstating its CAFRA Town Center and Commercial Core and redefining its boundaries as a part of the Plan Endorsement Process. The proposed CAFRA Town Center located within the Suburban Planning Area will increase the maximum permitted impervious surface coverage to 70 percent while the designated CAFRA core will increase the maximum permitted impervious surface coverage to 80 percent pursuant to N.J.A.C. 7:7E-5B.4 of the Coastal Zone Management Rules. Therefore this will contribute to an increase in the impervious surface coverage limits than what currently is permitted by ordinance.

## V. Specific changes recommended for the stormwater management plan or the development regulations

The fourth provision of 40:55D-89 of the M.L.U.L. requires that the Re-examination Report address:

*“The specific changes recommended for the master plan or development ordinances, if any, including underlying objectives, policies and standards or whether a new plan or regulations should be prepared.”*

To comply with this provision, BSG reviewed the existing development ordinances and proposed ordinances to recommend the following changes:

1. The following recommendations noted within the 2008 Stormwater Management Plan are included within this Re-examination Report:
  - a. Enforcement of local No Discharge Zone, including Barnegat Bay.
  - b. Endorsement of Clean Marina Programs.
  - c. Marina Best Management Practices such as providing and managing Marina pumpout facilities, etc.
2. The two mobile parks located to the west of the Garden State Parkway are within the purview of the Pinelands Comprehensive Management Plan. These are served by septic system. The 2008 Stormwater Management Plan had recommended that these get connected to the public sewer system. The owners of these two developments have declined to connect to the sanitary sewer system and are in the process of repairing the existing septic systems at the site. This Re-examination Report continues to encourage that these two development get connected to the public sewer system.
3. Revise uses within the PW Preserved Waterfront Zone District to remove those with large areas of disturbance such as schools and golf courses from being permitted uses within the Zone District.
4. The Township has adopted Wellhead Protection ordinance which established a wellhead protection area that prohibited certain uses that would impair the quality of ground water. It is recommended that the CN Neighborhood Commercial and C-PHD Planned Highway Development Commercial Zone District ordinances be revised to preclude automotive filling station, automotive car repair and car wash in order to reconcile and establish consistency with the uses prohibited within the overlain Wellhead Protection Areas in these zone districts.

5. It is recommended to modify ordinances to allow for vehicle overhang into a vegetated area and thereby reduce the impervious surface coverage.
6. Encourage owners to use pervious paving materials such as pavers, concrete or asphalt porous pavement and reinforced lawn. It is recommended that these be located away from Category One streams, areas near drinking water supply wells and areas of high aquifer recharge. On private properties such porous paving should be sited at least 100 feet from a drinking water supply well.
7. Encourage subdivision development to integrate bioretention basins and other structural BMP's through the development site than one centralized location as this will enable addressing stormwater runoff issues close to the source.
8. It is recommended to encourage deed restrictions or adopt ordinances that prohibit alteration or elimination of on-lot low impact development BMPs approved for use and officially identify them as well. Additionally, request land owners to properly maintain the structural low impact development BMPs located on individual owners properties.
9. Stormwater Management facilities are encouraged to qualify U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) certification and are recommended to include features such as vegetated swales, rainwater recycling and include non-structural surfaces such as pervious pavement, grid pavers, etc. With the reinstatement of the Town Center and Commercial Core and the subsequent increase in impervious coverage requirements pursuant to the CAFRA requirements, it is recommended that the post development peak discharge rate and quantity strive to achieve 25 percent less than pre-development. It is recommended that the ordinance be adopted to reflect the same.