



**Draft as Approved by the Highlands Council**

# **Township of Bedminster Highlands Preservation Area Master Plan Element**

Prepared by the State of New Jersey Highlands Water Protection and Planning Council in Support of the Highlands Regional Master Plan

**October  
2011**

**DRAFT**

**Note to Municipal Professional:** This cover page should be replaced in its entirety with one using the municipality's formatting, logo, etc., prior to municipal adoption.

# **PRESERVATION AREA ELEMENT**

## **DRAFT MASTER PLAN SUPPLEMENT TOWNSHIP OF BEDMINSTER SOMERSET COUNTY, NEW JERSEY**

**DRAFT FOR SUBMISSION TO THE NEW JERSEY HIGHLANDS WATER  
PROTECTION AND PLANNING COUNCIL TOWARD ACHIEVING  
PRESERVATION AREA PLAN CONFORMANCE WITH THE HIGHLANDS  
REGIONAL MASTER PLAN**

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The Planning Board presented, discussed, and accepted public comment on this draft Master Plan supplement at its duly-noticed public meeting of October 8, 2009. Copies of the document were made available for review by the public at least 10 days prior to that meeting, and adequate notice of the meeting advising that the Highlands Element was on the agenda for discussion and public comment, was provided.

This document is based on a model Highlands Element prepared and provided to all Highlands municipalities by the New Jersey Highlands Water Protection and Planning Council. Modifications required to tailor it for application to the Township of Bedminster were provided by the individual indicated below.

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**TOWNSHIP OF BEDMINSTER  
HIGHLANDS PRESERVATION AREA ELEMENT**

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**EXECUTIVE SUMMARY**

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Bedminster’s Rural Residential Zone, which blankets most of Bedminster Township including nearly all of the Highlands Preservation Area, strives to protect the countryside by requiring a light touch on the landscape. Bedminster’s adopted Master Plan includes:

- Land Use Plan
- Conservation Plan
- Recreation and Open Space Plan
- Circulation Plan
- Community Facilities Plan
- Water and Sewer Utility Services Plan
- Historic Preservation Plan
- Housing Plan
- Recycling Plan
- Farmland Preservation Plan
- Background Studies

This resource conservation-based Master Plan was the underpinning for the R-10 zoning, upheld by New Jersey’s Appellate Court over a decade ago as providing a comprehensive policy framework for resource conservation, with goals embraced at the local, County and State level.

Bedminster’s long-held local objectives are also underpinnings of the Highlands Regional Master Plan (RMP). Nonetheless, conformance to the Highlands RMP requires municipalities to adopt goals and policies consistent with the RMP. The goal of Highlands conformance is for municipalities to enact policies and regulations in the near term that implement the RMP provisions, and not to attempt to reconcile issues like duplication, which will be addressed at the later stage of plan conformance. As a result, some text in this Highlands Preservation Area Master Plan Element may appear duplicative of the adopted Master Plan.

This Preservation Area Master Plan Element, which incorporates the policies of the Regional Plan into the Bedminster Master Plan, is a component of mandatory conformance with the Highlands RMP required for Bedminster’s Preservation Area. Based on a model element developed by the Highlands Council, this Highlands Master Plan Element is a supplement to the adopted Master Plan and is governing whenever the RMP is more restrictive.

This ***Preservation Area Master Plan Amendment applies only to the Highlands Preservation Area*** and functions as an “overlay” (see Highlands Preservation Overlay Zone map) to assure that the Regional Plan policies for the Highlands Preservation Area are implemented at the local level. The underlying land use districts remain unchanged. Since the Preservation Area portion of Bedminster (north of Pottersville Road) represents only 6% of the township’s land area, conformance with the Highlands RMP will have little practical effect on most Bedminster landowners.

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Included in the Highlands Preservation Area Plan element are descriptions of policy objectives and recommended tools, as well as revisions to the following plan elements:

Land Use Plan  
Housing Plan  
Conservation Plan  
Circulation Plan  
Utilities Plan  
Land Preservation And Land Stewardship Plan,  
Sustainable Economic Development Plan,  
Community Facilities Plan,  
Historic Preservation Plan

As noted previously, RMP plan conformance for the Preservation Area affects a small minority of Bedminster landowners. However, for those affected, the RMP can be significantly more restrictive than the policies of the adopted Master Plan, which establishes the R-10 rural residential district throughout most of the Preservation Area.

Bedminster's Land Management Ordinance provisions, when combined, have the effect of requiring lots substantially larger than the 10-acre minimum for the zone, generally averaging closer to 20 acres per unit. For those able to subdivide, the minimum requirements in the Preservation Area in accordance with the N.J.A.C. 7:38 NJDEP Highlands Preservation Area Rules, and as referenced in the RMP, would be at least 25 acres for open field areas and 88 acres for wooded acreage.

It is important to note that the exemption provisions in the Highlands Act assure that existing churches and schools will be unaffected by the provisions of the RMP. Additionally, numerous homeowner exemptions are provided that allow adaptations of existing dwellings and the construction of new dwellings. As a result, the overall impact of conformance for the Preservation Area will be minimal for most landowners.

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## **INTRODUCTION**

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The Township of Bedminster is located in the New Jersey Highlands Region. It is one of 88 municipalities protected by and subject to the provisions of the Highlands Water Protection and Planning Act (“Highlands Act,” N.J.S.A. 13:20-1 et seq.). The Highlands Act was enacted by the State Legislature on August 10, 2004 for the purpose of protecting, enhancing, and restoring Highlands natural resources, in particular water resources, which provide drinking water to over 5 million New Jersey residents. The Highlands Act created the Highlands Water Protection and Planning Council (the “Highlands Council”) and charged it with crafting a comprehensive master plan for the Highlands Region.

The Highlands Regional Master Plan (RMP) was adopted by the Highlands Council on July 17, 2008, and became effective on September 8, 2008. The Township places value in the regional planning process that was undertaken to fully develop the RMP and acknowledges its role in furthering the vision that it represents.

The Highlands Region encompasses some 1,343 square miles in the northwest part of New Jersey. The Highlands Act designates about half of the seven-county Region as Preservation Area (415,000 acres) and the other half as Planning Area (444,000 acres). The Act requires that jurisdictions having lands in the Preservation Area conform to the Highlands RMP with respect to that area, while for lands located in the Planning Area, conformance is voluntary.

The Township of Bedminster is located partially in each, the Preservation and Planning Area. The municipality affirmatively seeks to align its land use planning program with the provisions of the RMP with respect to that portion of the municipality located within the Preservation Area only. For purposes of this document, these Preservation Area lands shall henceforth be referred to as the “Township Highlands Preservation Area.” This supplement to the Bedminster Township Master Plan, designated the “Highlands Preservation Area Element,” or “Preservation Area Element,” represents a first step toward achieving full conformance with the Highlands RMP.

During the 1990’s, Bedminster’s Master Plan adopted a resource capacity-based approach to land use policy that substantially predated the Highland Act or RMP. Bedminster’s 10-acre zoning, upheld by the Appellate Division as advancing the intent of the State Development and Redevelopment Plan (SDRP), has long limited the impacts of new development in rural Bedminster using environmental constraints and carrying capacity analysis in furtherance of enhanced objectives that are now articulated in the RMP. The adopted Bedminster Master Plan governs land use policy outside the Highlands Preservation Area, and the Preservation Area Element sets forth the policies that shall guide the future land use and development of Bedminster Township’s Preservation Area. It provides the rationale and the framework for the adoption of land use regulations that are protective of Highlands resources and consistent with the Highlands RMP. With regard to specific regulatory requirements, these shall apply only to non-exempt land use activities in the Preservation Area. “Non-exempt” land use and development refers to uses, activities,

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and development projects not expressly listed as exemptions in the Highlands Act (N.J.S.A. 13:20-28). It should be noted that Highlands Act exemptions are narrowly construed, such that certain regulatory requirements will apply even in association with exempt activities. For example, while the construction of a single-family dwelling may be authorized under Highlands Act exemption #1 or #2, such a dwelling would not be exempt from the application of an ordinance adopted pursuant to this Highlands Element, establishing standards and requirements governing the maintenance of septic systems. Land use activities, improvements, and development projects that are exempt from the Highlands Act shall remain subject to all other applicable provisions of the underlying municipal Master Plan, Zoning and Land Use Ordinances, and Development Regulations.

The Preservation Area Element amends each of the components of the municipal Master Plan, as provided in the sections that follow. Within the Preservation Area, the Preservation Area Element is intended to apply in conjunction with the language of the adopted Bedminster Township Master Plan to the maximum extent feasible. In the event of conflicts between the two, the Preservation Area Element shall supersede in the Preservation Area, unless the existing municipal Master Plan provisions are more restrictive.



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**POLICIES, GOALS & OBJECTIVES**

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In Bedminster Township, the Preservation Area encompasses the 6% area of the municipality north of Pottersville Road, which consists of approximately 1,009 acres of land (see Exhibit A, Bedminster Township Highlands Preservation Area).

The Township Highlands Environmental Resource Inventory (ERI) prepared by the Highlands Council with certain modifications added by Bedminster, and dated October 2011, provides detailed information concerning the physical features, natural resources and specific characteristics of the municipal Preservation Area. The ERI includes all of the information available through the Highlands Regional Master Plan and supporting technical documents, which document the wide array of natural and cultural resources that characterize the New Jersey Highlands Region.

The municipality recognizes the unique value of the Township Preservation Area and seeks to protect and enhance it, in keeping with the Highlands Act and the Highlands RMP. Accordingly, the overarching land use policy with respect to the Bedminster Township's Preservation Area is to place priority emphasis on the protection, enhancement and restoration of Highlands natural and cultural resources while ensuring that land use and development activities therein occur only in a manner and location that is consistent with the Highlands RMP.

In keeping with this policy, the following goals of the Highlands Act and Highlands RMP are reiterated by the municipality and shall guide the land use and development of the Township Preservation Area:

**A. PRESERVATION AREA GOALS**

1. To protect, restore, and enhance the quality and quantity of surface and ground waters;
2. To preserve extensive and, to the maximum extent possible, contiguous areas of land in its natural state, thereby ensuring retention of the unique and significant natural, scenic, and other resources representative of the Township Preservation Area;
3. To protect the natural, scenic, and other resources of the Township Preservation Area, including but not limited to contiguous forests, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora;
4. To preserve farmland, historic sites, and other historic resources;
5. To preserve outdoor recreation opportunities on publicly and privately owned land;
6. To promote conservation of water resources;

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7. To promote Brownfield remediation and redevelopment, where applicable;
8. To promote compatible agricultural, horticultural, equestrian, recreational, and cultural uses and opportunities within the framework of protecting the environment of the Bedminster Township Preservation Area; and
9. To prohibit or limit to the maximum extent possible construction or development which is incompatible with preservation of this unique area.

**B. GENERAL PURPOSES OF ZONING**

The afore-listed goals for the use and development of lands located within the Bedminster Township Preservation Area are consistent with and intended to apply equally and in conjunction with the purposes of zoning as expressed by the New Jersey Municipal Land Use Law (MLUL) (N.J.S.A. 40:55D-1 et seq.). Nothing in the body of the Preservation Element shall be construed to imply that the provisions of the MLUL are not also applicable to the Township in exercising its authority to engage in land use planning and regulation pertinent to the Preservation Area.

The intents and purposes of the MLUL (N.J.S.A. 40:55D-2) are expressly incorporated herein for application to Township land use planning and management of the Preservation Area, as follows:

- a. To guide the appropriate use or development of all lands under Township jurisdiction, in a manner which will promote the public health, safety, morals, and general welfare;
- b. To secure safety from fire, flood, panic and other natural and man-made disasters;
- c. To provide adequate light, air and open space;
- d. To ensure that the development of Bedminster Township does not conflict with the development and general welfare of neighboring municipalities, the county, or the state as a whole;
- e. To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions and preservation of the environment;
- f. To encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies;
- g. To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all citizens;

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- h. To encourage the location and design of transportation routes which will promote the free flow of traffic while discouraging location of such facilities and routes which result in congestion or blight;
- i. To promote a desirable visual environment through creative development techniques and good civic design and arrangement;
- j. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the Township and to prevent urban sprawl and degradation of the environment through improper use of land;
- k. To encourage planned unit developments, where appropriate, which incorporate the best features of design and relate the type, design and layout of residential, commercial, industrial and/or recreational development to the particular site;
- l. To ensure sufficient availability of senior citizen community housing;
- m. To encourage coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and to the more efficient use of land;
- n. To promote utilization of renewable energy resources; and
- o. To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to complement municipal recycling programs.

**C. RELATIONSHIP BETWEEN HIGHLANDS ACT & MLUL**

The Municipal Land Use Law gives authority to New Jersey municipalities to govern land use and development within their borders. The Highlands Act augments that authority to allow municipalities the power to enforce the goals, policies, objectives, and programs of the Highlands Regional Master Plan. The Highlands Act and the RMP together provide the regional perspective from which local decisions and actions will emanate.

As a result of the passage of the Highlands Act, the future of land use planning has significantly changed for both municipalities and counties in the Highlands Region. Accordingly, the criteria for approval of development applications under the ordinances that ultimately effectuate this Preservation Element will incorporate aspects of both the Municipal Land Use Law and the Highlands Act.

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**LAND USE PLAN**

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**A. HIGHLANDS ZONES AND SUB-ZONES**

The Township Preservation Area includes the Highlands Zones and Sub-Zones listed and described below. These Zones are configured as depicted in Exhibit A (“Bedminster Township Highlands Preservation Area”) and are herewith incorporated into the Land Use Plan as an overlay to the existing Land Use Plan. The Highlands Council delineation of Highlands Zones finds basis in the underlying natural resources, the extent of existing development and supporting infrastructure, and the potential to support new development and/or redevelopment. Highlands Zones are intended to ensure that the density and intensity of future development and/or redevelopment do not exceed the capacity of the land, natural resources, and existing infrastructure to support it.

The Highlands Zones in the Bedminster Preservation Area include three primary zones (the Protection Zone, Conservation Zone, and Existing Community Zone) and two sub-zones (Conservation Zone–Environmentally Constrained Sub-Zone and Existing Community Zone–Environmentally Constrained Sub-Zone), each with its own purpose, application and development criteria.

1. **Protection Zone.** The Protection Zone consists of the highest quality natural resource value lands that are essential to maintaining water quality, water quantity and sensitive ecological resources and processes. Land acquisition is a high priority for lands in the Protection Zone and development activities will be extremely limited. Any development will be subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands and natural resources.
2. **Conservation Zone.** The Conservation Zone consists of areas with significant agricultural lands interspersed with associated woodlands and environmental features and the protection of these woodlands and environmental resources is paramount. The Conservation Zone is intended primarily for agricultural use and development, including ancillary and supporting uses and activities that are consistent with the environmental constraints. Non-agricultural development activities will be limited in area and intensity due to infrastructure constraints and resource protection goals. Where non-agricultural development does occur it must be designed to ensure compatibility with environmental conservation and agricultural uses.
  - a. **Conservation Zone–Environmentally Constrained Sub-Zone.** The Conservation Zone–Environmentally Constrained Sub-Zone consists of significant environmental features within the Conservation Zone that should be preserved and protected from the adverse impacts of agricultural and non-agricultural development. Development activities will be limited and subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands.

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**3. Existing Community Zone.** The Existing Community Zone consists of areas of concentrated development representing existing communities. These areas tend to have limited environmental constraints due to previous development patterns, and may have existing infrastructure that can support additional development and/or redevelopment. Where served by adequate supporting infrastructure, lands within the Existing Community Zone are suited to higher densities and intensities of development (see Section C, below) than other Zones and Sub-Zones.

- a. **Existing Community Zone–Environmentally Constrained Sub-Zone.** The Existing Community Zone–Environmentally Constrained Sub-Zone consists of significant contiguous critical habitat, steep slopes and forested lands within the Existing Community Zone that should be protected from further fragmentation. They serve as regional habitat “stepping stones” to larger contiguous critical habitat and forested areas. As such, they are not appropriate for significant development, and are best served by land preservation and protection. Development is subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands.

**B. LAND USES**

The intents and purposes for each municipal land use category or zoning district, as set forth by the underlying Land Use Plan, are herewith amended to recognize and give priority to the intents and purposes listed above for the Highlands Zones and Sub-Zones. As to land use classifications (e.g., single- or multi-family residential, commercial, industrial) and specific permitted land uses, a thorough review and comparison between municipal and Highlands Zones must be undertaken to assess compatibility and to determine whether zoning amendments (pertinent to non-exempt development) are necessary to achieve consistency. Until such time as that examination is complete, permitted uses shall remain in effect for non-exempt development, with the significant caveat that each is subject to compliance with: a) all resource constraints (discussed at length in the Conservation Plan Element); b) all applicable provisions of both the NJDEP Highlands Water Protection and Planning Act Rules (N.J.A.C. 7:38) and the New Jersey Department of Agriculture (NJDA) Agricultural Development in the Highlands Rules (N.J.A.C. 2:92); and c) the density and intensity requirements set forth in the section that follows (see Section C, Density and Intensity of Development).

Specific immediate changes to permitted uses will include the following, each pending the adoption of implementing ordinance provisions approved by the Highlands Council:

**1. *Agricultural Resource Area.***

- a. Upon adoption of the appropriate regulatory provisions, permitted principal uses for any lands defined and delineated as part of the “Agricultural Resource

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Area” (as defined and delineated in the Agriculture Retention/Farmland Preservation Plan of this Preservation Area Element) shall include agricultural, equestrian and horticultural uses (at minimum, as defined by the Highlands Act); permitted accessory uses to such agricultural and horticultural uses shall include ancillary, incidental and/or otherwise related supporting uses and the accessory structures devoted to such uses.

- b. Upon adoption of a Lot Size Averaging Development Ordinance, the permitted principal residential use for any zoning district, or portion of any zoning district, which is located within the “Agricultural Resource Area” and which otherwise permits detached single-family residential development as a principal use, shall be restricted to residential lot size averaging development wherever the minimum thresholds (e.g., lot size) for residential lot size averaging development pursuant to the Lot Size Averaging Development Ordinance can be satisfied (see Section D). Any lawfully existing or approved single-family residential development in the Agricultural Resource Area as of the date of adoption of the implementing Ordinances, if permitted by the underlying municipal Zoning Ordinance, shall remain a permitted use.
2. ***Carbonate Rock Area.*** Upon adoption of the appropriate regulatory provisions, the following principal and/or accessory uses and/or structures, where otherwise permitted by the municipal ordinance, shall be explicitly prohibited from any portion of the Preservation Area designated a “Carbonate Rock Area” (as defined and delineated in the Conservation Plan Element) or from any lands identified as draining into a designated Carbonate Rock Area: solid waste landfills, hazardous waste storage and disposal facilities, hazardous materials storage and handling facilities, and underground storage tanks.
3. ***Prime Ground Water Recharge Area.*** Upon adoption of the appropriate regulatory provisions, any principal and/or accessory use or structure related or devoted to such use, which is designated as a Major Potential Contaminant Source (PCS) by the Township (see Appendices A and C), where otherwise permitted by the municipal ordinance, shall be expressly prohibited from any portion of the Preservation Area delineated as a “Prime Ground Water Recharge Area” (as defined and delineated in the Conservation Plan Element).

**C. DENSITY AND INTENSITY OF DEVELOPMENT**

The physical potential for development and/or redevelopment in each Highlands Zone and Sub-Zone of the Township Preservation Area is limited by existing natural features, resource protection priorities, and the capacity of the land and available infrastructure to support it. This section sets forth a capacity-based planning framework intended to ensure that future development and redevelopment do not exceed carrying capacity.

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To the extent that the existing development density and intensity standards of the underlying zone districts (as defined and applied under the existing Land Use Plan and Zoning Ordinance) are consistent with the parameters of this section, they shall remain in effect. Where any density or intensity goals of the existing Land Use Plan are inconsistent with these limits, they are herewith modified with respect to the Preservation Area, to the extent necessary to conform to the Highlands RMP. For purposes of these provisions, density of development standards refer to the requirements of the underlying Zoning Ordinance that regulate the permitted number of dwelling units per acre of land, whether specifically defined as density standards or set forth as minimum lot size requirements for application to specific zoning districts. Intensity of development standards refer to those requirements used to define the relationship between the permitted extent, form and location of development of a lot, to the size, shape, and configuration of the lot on which it is situated (e.g., floor area ratio, building coverage, lot coverage).

In the context herein, modifications to the underlying density or intensity of development standards will occur only to the extent that existing standards conflict with provisions of the Highlands Act, NJDEP Preservation Area Rules, or RMP, in particular those concerning water availability or available septic system yield. These modifications shall not apply to lawfully existing or approved development in the Preservation Area at the time of adoption of the ordinances that effectuate such provisions. They shall apply, however, if modifications or improvements to such existing development result in an increase in demand for water availability or septic system yield (excluding any increase directly attributed to exercise of a Highlands Act exemption).

Permitted densities and intensities of development shall comport with the provisions of the Highlands RMP, Highlands Council Technical Reports and all data related thereto, and the applicable provisions of the Preservation Area Rules adopted by the NJDEP (N.J.A.C. 7:38). As provided therein, the framework for setting development density/intensity guidelines relies primarily on water and wastewater capacity analyses, with natural resource constraints to be applied largely on a project-specific basis at the development review level.

Permitted density and intensity allowances for the Preservation Area must also reflect municipal intents with respect to growth and development of the community. A comprehensive analysis will be required as follow-up to adoption of the Preservation Element, to determine specific density and intensity allowances for future non-exempt development within the Preservation Area. The Board will, with the assistance of its professionals, complete this analysis to determine: 1) the capacity for future growth and development of the Preservation Area (based on the RMP, Technical Reports, NJDEP Rules); 2) the extent to which such growth may be appropriate within the relevant portions of the community; and 3) the specific allocation of such growth and development over the Highlands Zones and Sub-Zones.

Until such time as the full analysis can be completed, applications for development within the Preservation Area require reviews for consistency on a project-by-project basis. The

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major criteria for assessing the proposed density/intensity of development include the following:

1. **Base Maps/Data.** Base data regarding water availability appear in the technical information provided in the Conservation Plan and associated mapping identified as Exhibit R, the Township Preservation Area map of Net Water Availability. Exhibit R is herewith adopted and incorporated as a component of the Preservation Area Element.
2. **Water Availability.** As provided under Conservation Plan Element Section G, Water Resources Availability.
3. **Public Water Supply and Wastewater Utilities.** Where properties are served by existing water and wastewater utility infrastructure having sufficient available capacity, the density and intensity of new development shall be consistent with the requirements of existing zoning.
4. **Public Water Supply Utilities – Key Provisions.** New, expanded, or extended public water systems are prohibited unless approved through issuance of either a Highlands Applicability Determination indicating that a project is exempt from the Highlands Act, or a Highlands Preservation Area Approval with waiver pursuant to N.J.A.C. 7:38.
5. **Wastewater Utilities – Key Provisions.** New, expanded or extended wastewater collection and treatment systems and community on-site treatment facilities are prohibited unless approved through issuance of either a Highlands Applicability Determination indicating that a project is exempt from the Highlands Act, or a Highlands Preservation Area Approval with waiver pursuant to N.J.A.C. 7:38.
6. **Septic Systems – Key Provisions**
  - a. **Major Highlands Development.** Development proposals involving the installation of one or more new individual subsurface disposal systems (or aggregate of equivalent disposal units as provided at N.J.A.C. 7:38) shall meet NJDEP septic system density requirements as set forth at N.J.A.C. 7:38. In the case of Lot Size Averaging Development, the septic system density for the developed portion of the site shall be based on a nitrate dilution target not to exceed 10 mg/L, determined by application of the modified Trela-Douglas Nitrate Dilution Model, as provided below.
  - b. **Non-Major Highlands Development.**
    - i. **Nitrate Targets.** The following nitrate dilution targets shall apply to the calculation of septic system yields:
      - **Existing Community Zone (and Sub-Zones) – 2 mg/L, maximum**



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- **Conservation Zone (and Sub-Zones)** – 1.87 mg/L, maximum
  - **Protection Zone (and Sub-Zones)** – 0.72 mg/L, maximum
- ii. **Lot Size Averaging Development Nitrate Targets.** New residential lot size averaging development (see Section D) shall have a gross septic system density (for all parcels involved in the development proposal) based on the nitrate dilution target applicable to the Highlands Zone (5b.i, above). The septic system density for the developed portion of the site, however, shall be based on a nitrate dilution target not to exceed 10 mg/L.
- iii. **Septic System Density/Yield.** Septic system densities will vary not only on the basis of nitrate targets for each Zone (as above), but by HUC14 subwatershed, on the basis of drought ground water recharge. Septic system yields will further vary based on the amount of undeveloped and underdeveloped lands where septic system densities can be applied.
- iv. **Nitrate Dilution Model.** Development proposals involving any need for new or increased septic system capacity shall demonstrate compliance with the nitrate targets in 6b.1 and, where applicable, 6b.ii above. Such compliance shall be determined by application of one of the following methods:
- The modified Trela-Douglas nitrate dilution model used by the NJDEP (for more information please see <http://www.highlands.state.nj.us/njhighlands/planconformance/>), but with recharge based on drought conditions. This model provides the minimum acreage required per septic system, to ensure that recharge is sufficient to achieve a specified nitrate dilution target. The following factors, representative of a one-family household, or wastewater generation of 300 gallons per day, shall be used as inputs to the model: a household size of 4 persons, average nitrate loading of 10 pounds per person per year, and drought ground water recharge for the HUC14 subwatershed as dilution.
  - The chart of minimum average lot sizes by HUC14 subwatershed and Highlands Zone (including sub-zones) provided by the Highlands Council indicating the minimum average land area necessary for each new septic system (or equivalent system yield based on an average 300 gallons per day of wastewater generation). A copy of the chart is available at: <http://www.highlands.state.nj.us/njhighlands/planconformance/>.

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- v. **Application of Results.** The septic system yield for a proposed project shall be determined by dividing the total project area by the minimum acreage required per septic system, as determined by one of these models. For non-residential development, the resulting acreage is that necessary to support every 300 gallons of daily wastewater flow generated by the proposed non-residential use (see conversion factors below). Where a project site is located within more than one HUC14 subwatershed, septic system yields shall be computed for and applied to each portion of the site, accordingly.

This approach shall be applied on a project-specific basis by subwatershed. The subwatershed yield shall in no case be exceeded.

- For purposes of these analyses, the RMP septic system yield rules apply (see the Highlands Council *Regional Build-Out Technical Report*). For residential uses, the calculation assumes wastewater generation of 300 gallons per household per day. The RMP equivalent dwelling unit (EDU) value for non-residential septic uses equates to 2,400 square feet of Office/Commercial space and 18,182 square feet of Industrial space. Additional conversion factors are to be determined on a case by case basis for each possible use.
- For detached single-family residential development, where the underlying density allowances of the Township Master Plan and zoning regulations are higher than those in the NJDEP Highlands Rules, minimum lot areas shall be established based on the standards in the NJDEP Highlands Rules. If a Highlands Council-approved Lot Size Averaging Development Ordinance (see Section D, following) has been adopted, its provisions shall apply and may take precedence in making this determination, if so provided therein.
- For all other forms of development, projects shall be evaluated on the basis of overall wastewater disposal need and the capacity of the calculated septic system yield to support it.

**D. CONSERVATION RESIDENTIAL DEVELOPMENT**

In furtherance of the goals and objectives of the Preservation Area Element, and of the State Development and Redevelopment Plan (SDRP), this Land Use Plan supports conservation development. This concept allows flexibility in the design and lay-out of development projects, providing opportunity for new construction while addressing other priorities, such as: protecting environmentally sensitive areas, preserving large contiguous areas of open

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space and agricultural land, and enabling the continuation of existing agricultural and/or horticultural land uses.

Specifically, this Plan provides for conservation development in the Agricultural Resource Area (as defined and delineated in the Agriculture Retention/Farmland Preservation Plan Element of this Preservation Element), wherein residential development shall be concentrated on a limited portion of a much larger tract, with the remaining land permanently deed-restricted for agriculture (as a priority), conservation or open space in accordance with the Lot Size Averaging Ordinance.

To effectuate this component of the Land Use Plan, an RMP-consistent, Highlands Council-approved Lot Size Averaging Development Ordinance must be adopted setting forth provisions applicable to such development, including but not limited to: minimum tract size, density and intensity allowances, applicable bulk standards, developed- and preserved-area allocations, and site design parameters, such as the use of smart growth principles and Low Impact Development practices (see Section I). Standards must also regulate conservation easements to ensure that they provide adequate resource protection, monitoring, and enforcement. These will include requirements for Farm Conservation Plans where preserved areas are dedicated to agriculture (see the Agriculture Retention/Farmland Preservation Element). This ordinance will be developed once The Highlands Council Conservation Design Development Guidelines have been prepared to assist in development of these regulatory provisions.

As follow-up to adoption of the Preservation Element, the Board will examine the opportunities for conservation development in the Preservation Area. The Board will seek appropriate locations based on water and wastewater treatment capacity (as discussed at Section C, above), natural resource constraints, proximity to transportation and other support infrastructure, suitability by Highlands Zone and Sub-Zone, potential to enhance community character, and efforts to achieve center-based development while preserving the environs. The proposed Lot Size Averaging Development Ordinance must be designed to maximize environmental protection and agricultural conservation while minimizing the overall number of isolated lot size averaging developments in keeping with all other considerations.

The Lot Size Averaging Development Ordinance will incorporate all applicable provisions of the Highlands RMP, including the density provisions discussed at Section C, above. Upon adoption of a Lot Size Averaging Development Ordinance, the permitted residential subdivision standards for any zoning district, or portion of any zoning district, which is located within the "Agricultural Resource Area" and which otherwise permits residential development as a principal use, shall immediately be restricted to residential lot size averaging subdivision development wherever the minimum thresholds for residential lot size averaging development pursuant to the Lot Size Averaging Development Ordinance can be satisfied. Any lawfully existing or approved residential development in the Agricultural

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Resource Area as of the date of adoption of the implementing Ordinances, if permitted by the underlying municipal Zoning Ordinance, shall remain a permitted use.

It is the long-term intent to require that where residential units of any kind are permitted in conjunction with, or as an accessory to any use in the Agricultural Resource Area, site development shall be “clustered using a lot averaging approach” in accordance with conservation design requirements. This goal will be addressed through future supplements to the Lot Size Averaging Development Ordinance or other land use ordinances, as appropriate.

**E. LAND USE INVENTORY**

Planning for the future of the Preservation Area requires a clear understanding and assessment of existing land uses and development within the Preservation Area, in the areas surrounding the Preservation Area, and throughout the municipality. The Bedminster Township Land Use Inventory prepared by Banisch Associates, Inc., is representative of land use and development conditions within the municipality through 2002 (see Exhibit B, “2002 Land Use/Land Cover”) and requires an update to accurately represent existing land uses.

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**HOUSING PLAN**

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The overriding policy of the Housing Plan is to ensure provision of a variety of housing opportunities sufficient to address the needs of the community, including the need for affordable housing, while at the same time respecting the density limits of the Highlands Element Land Use Plan, the resource constraints applicable to the Highlands Area, and the numerous other policies, goals and objectives set forth by the Township Master Plan. The Housing Plan furthers MLUL purposes of zoning (at N.J.S.A. 40:55D-2, specifically 2a., 2e., 2g., 2l.) and fulfills the requirements of the New Jersey Fair Housing Act (N.J.S.A. 52:27D-301 et seq.) which in keeping with New Jersey Supreme Court doctrine, as expressed in the “Mount Laurel” decisions, recognizes that every municipality in a “growth area” has a constitutional obligation to provide, through its land use regulations, a realistic opportunity for provision of a fair share of its region’s present and prospective needs for housing for low- and moderate-income families.

**A. GOALS AND OBJECTIVES**

In furtherance of Township efforts to ensure sound planning, this Plan incorporates the following goals and objectives with respect to future housing in the Highlands Area:

1. To the extent feasible, the zone plan will guide anticipated new residential development into compact, center-based projects (optional addition: incorporating a mix of housing types and/or mixed residential/commercial uses).
2. To provide a realistic opportunity for the provision of the municipal share of the region’s present and prospective needs for housing for low- and moderate-income families.
3. To the maximum extent feasible, affordable housing units shall be incorporated into any new residential construction that occurs within the Highlands Area including any mixed use, redevelopment, and/or adaptive reuse projects.
4. To preserve and monitor existing stocks of affordable housing.
5. To reduce long term housing costs through:
  - a. The implementation of green building and energy efficient technology in the rehabilitation, redevelopment and development of housing. Recent innovations in building practices and development regulations reflect significant energy efficiency measures, and therefore cost reductions, through building materials, energy efficient appliances, water conservation measures, innovative and alternative technologies that support conservation practices, and common sense practices such as recycling and re-use.

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- b. The promotion of the use of sustainable site design, efficient water management, energy efficient technologies, green building materials and equipment, and retrofitting for efficiencies.
  - c. Maximizing the efficient use of existing infrastructure, through such means as redevelopment, infill and adaptive reuse.
6. To use a smart growth approach to achieving housing needs:
- a. Use land more efficiently to engender economically vibrant communities, complete with jobs, houses, shopping, recreation, entertainment and multiple modes of transportation.
  - b. Support a diverse mix of housing that offers a wide range of choice in terms of value, type and location. In addition, seek quality housing design that provides adequate light, air, and open space.
  - c. Target housing to areas with existing higher densities and without environmental constraints, within walking distance of schools, employment, services, transit and community facilities with sufficient capacity to support them.

**B. PLAN BACKGROUND & SUMMARY**

Bedminster's Housing Element and Fair Share Plan (December 2008) was submitted to the Council on Affordable Housing by the 2008 deadline and is incorporated herein by reference. The Housing Plan received certification from COAH on December 9, 2009. Bedminster's original 1985 Court-ordered fair share obligation was 819 affordable units<sup>1</sup>. This created a mandate to build over 4,000 dwelling units, along with associated shopping and office space in tiny Pluckemin, where Henry Knox once trained the Pluckemin Artillery. In the process of satisfying this Court mandate, a sleepy village with a Revolutionary pedigree was radically transformed by the blanket of development that was arrayed over Schley Mountain.

Bedminster began to incur the fiscal burdens of this development during the 1980's, and as the Township proceeded in good faith to meet the 819-unit mandate, the Council on Affordable Housing was established and developed a statewide fair share methodology that found Bedminster's fair share obligation to be 177 affordable units, not 819. This total was less than 25% of the original obligation imposed by the Court, and would have required less than 1,000 total units to be built in Pluckemin. In 1994 Bedminster returned to Judge Eugene R. Serpentelli and secured a reduction in the fair share obligation from 819 affordable units to 698, a number that Bedminster subsequently has fully satisfied.

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<sup>1</sup> Allan-Deane Corp. v. Bedminster Tp., 205 N.J. Super. 87. (Law Div. 1985).

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As seen below, new inclusionary construction at The Hills and Timberbrooke produced 644 units, while an additional 50 senior rental units were developed through a partnering effort between Bedminster and the developer.

Project Name	Total Units Constructed	Affordable Units to Prior Round	Rental Bonus Credits*	Affordable Units/ Credits to Prior Round	Affordable Units Carried Forward to Third Round
Hills family rental units	102	38	38	76	64
Hills for sale units	518	16		16	502
Pluckemin Park	50	38		38	12
Timberbrooke	24	24		24	
<b>Total</b>	<b>694</b>	<b>116</b>	<b>38</b>	<b>154</b>	<b>578</b>

Bedminster also developed a rehabilitation program that produced 4 units of credit, meeting the 698-unit adjusted Court imposed obligation.

The latest COAH rules have further reduced Bedminster’s “prior round” obligation to 154, which is satisfied by 116 affordable units and 38 rental credits. This allows Bedminster to carry nearly 600 “extra credits” into the third COAH cycle. It is noteworthy that Judge Serpentelli, in response to Attorney Henry Hill’s objections to adjusting Bedminster’s fair share number, predicted in 1994 that Bedminster had clearly met any obligation it would incur well into the 21<sup>st</sup> century.

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**CONSERVATION PLAN**

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Bedminster's adopted Conservation Plan has long guided land use policy and was a critical underpinning when the Appellate Division upheld Bedminster's low density R-10 zoning. Based on a detailed assessment of natural resource capabilities and limitations, Bedminster recognized the important role of the Conservation Plan in defending the challenged R-10 Rural Residential zoning.

Section 300 of the Bedminster Master Plan comprises the Conservation Plan, which addresses the following areas of concern:

- Agriculture
- Energy and Air Quality
- Forest Resources
- Groundwater
- Scenic Resources
- Steep Slopes
- Stream Corridors and Surface Water
- Threatened and Endangered Species
- Wetlands
- Light Pollution
- Relationship to Other Plan Elements

The basis for this Conservation Plan Element supplement is the Highland Preservation Area Environmental Resource Inventory (ERI), which is herewith adopted and incorporated in its entirety as an integral component of the Master Plan. The ERI (which will be further supplemented through the Plan Conformance process) was developed based on the vast store of resource information, technical data, and scientific analyses that provide foundation for the Highlands Regional Master Plan, including all Highlands Technical Reports and guidance documents. The ERI identifies, categorizes and delineates the wide array of natural resources and resource areas existing in the Township Preservation Area, and serves as a preeminent guidance document in Preservation Area community planning. In keeping with the general goals of the Highlands Element, it is the overarching policy of the Conservation Plan to safeguard the natural resources of the Bedminster Township Preservation Area, ensuring sustainable use of renewable resources, protecting environmentally critical areas, and preserving significant natural areas. This policy directly advances the intents and purposes of the Highlands Act and is consistent with and furthers a number of the specific purposes of zoning as set forth under the MLUL (N.J.S.A 40:55D-2).

**A. FOREST RESOURCES**

The following strategies recommended in Bedminster's adopted Conservation Plan, which are designed to preserve, protect and improve the forest resources in the Township, are highly compatible with the intent and purposes of the Highlands RMP:.



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- a. A woodland conservation program, including identification of the floodplain, mesic and upland forest stands on the tract should be required as part of any application for development.
- b. Performance standards should be established limiting the extent of forest removal, based on the quality of the forest type. Priority wooded areas for preservation include unique forest types, woodlands adjacent to public water supply tributaries, habitats critical for endangered and threatened species, specimen trees, large wooded patches, 100-year floodplains, wetlands, stream corridors, and slopes of 15 percent or greater.
- c. Performance standards should encourage the preservation of habitat areas that are as large and circular as possible, gradual and undulating at the edges and connected by wildlife corridors wide enough to maintain interior conditions (i.e. 300' or more).
- d. Hedgerows and forest areas along traveled roadways and established property boundaries should be retained and enhanced, where appropriate, with native species.
- e. Woodland areas along open space corridors should be preserved and interconnections among existing woodlands should be promoted.
- f. Reforestation and afforestation of open spaces, resulting from conservation subdivision designs, should be required to enhance habitat, promote recharge and reduce surface runoff, erosion and flooding through the use of native species.
- g. A construction mitigation plan, which minimizes and mitigates construction-related impacts on woodlands, should be required prior to disturbance of more than 10,000 square feet of woodlands.
- h. A local permitting process should be developed for isolated lots, to prevent the removal of trees and other vegetation from an area greater than 1,500 square feet unless on- or off-site replacement is provided.
- i. Lower residential density standards may promote the retention of forests in Bedminster.

Preservation Area Forest Resource delineations appear in the ERI maps duplicated herein at Exhibit E, "Forest Resource Area," Exhibit F, "Total Forest Area," and Exhibit G, "Forest Subwatersheds."

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This Plan seeks to balance the need to protect forest resources, biodiversity and water resources with the economic use and continued sustainable management of forests. It encourages active stewardship of forest resources in order to optimize the benefits and services forests provide such as clean air, clean water, soil protection, recreation area, wildlife habitat, and availability of forest products. The below-listed goals and objectives will guide the regulation and management of Bedminster Township Preservation Area Forest Resources.

1. To protect and preserve extensive and, to the maximum extent possible, contiguous forests.
2. To limit development in the Forest Resource Area.
3. Where development is permitted in the Forest Resource Area, to avoid deforestation and require submission of and compliance with a Forest Mitigation Plan.
4. To prohibit clear-cutting in the Forest Resource Area except in accordance with a Forest Management Plan approved by the State Forester.
5. To require compliance with NJDEP Preservation Area Rules (N.J.A.C. 7:38) regarding forest protection in the case of all “major developments,” as defined therein.
6. To ensure that site-specific forest resources are identified through project review and that those to remain are protected both during the construction of an approved development project and by conservation easement post-construction.
7. To prohibit clear-cutting within any portion of the Total Forest Area except pursuant to a Forest Management Plan approved by the State Forester.
8. To permit forestry activities within a Forest Resource Area or within the forested lands within a High Integrity Forest Subwatershed only in compliance with an approved Forest Management Plan.
9. To maintain forest cover in the natural and built environment of the Bedminster Township Preservation Area to the maximum extent possible.

**B. HIGHLANDS OPEN WATERS AND RIPARIAN AREAS**

Bedminster’s Conservation Plan focuses attention on a range of strategies needed to protect the integrity of riparian corridors from development impacts, and recommends the following management approaches:

- a. Vegetated buffers at least one hundred fifty (150') feet from each side of the stream centerline along all streams.

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- b. A stream corridor protection program, modeled after the program established by the Delaware and Raritan Canal Commission, which seeks to protect the stream corridor and adjacent wetlands, floodplains, and contributory uplands with steep slopes
- c. Management strategies and monitoring standards for stream corridor areas.
- d. Where past land use practices have resulted in the removal of trees along stream corridors, management practices should include the reestablishment of the tree cover.
- e. Outreach to neighboring municipalities to develop consistent and/or compatible management strategies along stream or river corridors.

Additionally, in order to mitigate potential impacts to the Township's surface waters, the following management approaches are recommended:

- a. Water quality best management practices should be adopted or refined, to protect the quality of surface waters and promote maximum habitat values. These include:
  - Arrange development on the least porous soils, to promote infiltration and reduce sediment and pollutant loading,
  - Buffer strips and techniques to maximize overland flow, such as grassed swales and filter strips,
  - Regional stormwater management approaches and extended detention facilities,
  - Wet ponds (retention basins) and wetland or marsh creation,
  - Infiltration practices to detain runoff, including trenches, basins, drywells and other structural solutions, and
  - Water quality inlets and oil/grit separators.
- b. Reductions in permitted residential densities and impervious coverage

Section 311 of the adopted Bedminster Conservation Plan recognizes the preemptive State and Federal regulation of wetlands, but also recommends land management approaches for protected wetlands and transition areas and a system to periodically monitor and enforce conservation easement restrictions. It also recommends that wetlands transition areas required by the New Jersey Freshwater Wetlands Protection Act be defined as critical areas in the Land Management Ordinance and that permitted development be arranged to avoid

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*all* significant wetlands, and to locate necessary road crossings at the point of minimum impacts.

Highlands Open Waters and Riparian Areas within the Preservation Area appear in ERI mappings duplicated herein at Exhibit H, "Highlands Open Waters" and Exhibit I, "Highlands Riparian Areas." Closely related and also duplicated herein, are Exhibit J, "Watershed Value," and Exhibit K, "Riparian Integrity." This Plan recognizes and incorporates the descriptions, definitions, delineations, and values regarding Highlands Open Waters and Riparian Areas as discussed in the ERI.

Highlands Open Waters are defined by the Highlands Act as all springs, streams including intermittent streams, wetlands, and bodies of surface water, whether natural or artificial (excluding swimming pools), located wholly or partially within the boundaries of the Highlands Region. The Highlands Act and the Highlands RMP establish the importance of providing protective buffers adjacent to Highlands Open Waters. Key functional values that such buffers provide or contribute to, include but are not limited to habitat, stormwater and flood water retention and filtration, water quality protection, temperature moderation, aquatic ecosystem integrity and channel integrity. Highlands Riparian Areas are the lands associated with and bordering Highlands Open Waters, but often extending beyond the Highlands Open Water buffers, that provide critical hydrologic, ecologic and pollutant attenuation functions for the Open Waters.

The below-listed goals and objectives will guide the regulation and management of Highlands Open Waters and Riparian Areas in the Township Preservation Area.

1. To protect, restore and enhance Highlands Open Waters and Riparian Areas.
2. To require protective buffers adjacent to Highlands Open Waters of sufficient width and composition to protect the integrity of the water resource from impairment due to proximate land uses and/or development activities. Minimum standards for such buffers should be consistent with those of the NJDEP and the RMP.
3. To limit disturbances within established Highlands Open Waters buffer areas to previously disturbed areas, only, with jurisdiction over any waivers from this restriction left to the Highlands Council and/or the NJDEP, as applicable. Approval of buffer disturbances in previously disturbed areas should occur only where an applicant can satisfactorily demonstrate that: a) the encroachment cannot be avoided, b) the disturbance is the minimum feasible, and c) any adverse impacts will be mitigated to result in no net loss of functional value (in accordance with the functional value assessment methodology provided in the ERI).
4. To seek opportunities to restore the functional value of Highlands Open Waters buffers where existing development or land uses have reduced or impaired their quality.

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5. To seek opportunities to enhance Highlands Open Waters buffers by improving functional values while ensuring no net loss (see ERI assessment methodology).
6. To develop a Stream Corridor Protection and Restoration Management Plan that identifies: a) substantially impaired Highlands Open Waters buffer areas in the municipality; b) opportunities for mitigation, restoration, and stabilization of such impaired buffer areas; and c) stream corridor areas that require buffers in excess of minimum standards and the characteristics necessary to provide optimum functional value.
7. To prohibit modifications to Riparian Areas in the Protection Zone except where a waiver is approved by the NJDEP or the Highlands Council.
8. To limit disturbance of existing natural vegetation or increases in impervious area within High and Moderate Integrity Riparian Areas in all other Zones and Sub-Zones to the minimum feasible in areas beyond Highlands Open Waters buffer requirements; protect the water quality of adjacent Highlands Open Waters; and maintain or restore habitat value of the Riparian Area.
9. To restrict modifications to Riparian Areas in Existing Community and Conservation Zones, other than those addressed by Objective 8, above, that would alter or be detrimental to the water quality and habitat value of a Riparian Area.
10. To require use of Low Impact Development Best Management Practices (see Section I) for any development activity proposed within a Riparian Area to minimize both alteration of natural vegetation and increase in impervious area and to provide for mitigation through restoration of impaired Riparian Areas in the same HUC14 subwatershed.

**C. STEEP SLOPES**

Bedminster's Conservation Plan (Section 307) identifies concerns regarding development of steep slopes and the resulting environmental impacts, including increased soil erosion and sedimentation, decreased surface water quality, decreased soil fertility, increased overland flow, decreased groundwater recharge, and altered natural drainage patterns. In order to reduce the potential for these negative impacts the Conservation Plan recommends:

- a. Strict adherence to development standards, which limit the extent of disturbance to critical steep slopes.
- b. Strategies, which relate the intensity of development to the occurrence of steep slopes and which may include reductions in permitted residential unit yield.

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Steep slopes within the Preservation Area appear in the ERI mapping duplicated herein at Exhibit L, “Steep Slope Protection Areas.” This Plan recognizes and incorporates the descriptions, definitions, delineations and values regarding steep slopes as discussed in the ERI.

Bedminster Township is particularly concerned with the potential negative impacts of land development practices that do not properly consider the constraints and challenges presented by steep slope areas. As discussed in the ERI, disturbance of such areas can trigger erosion and sedimentation, resulting in the loss of topsoil. Silting of wetlands, lakes, ponds and streams damages and degrades wetland and aquatic habitats, especially trout streams, which require rigorous water quality protections. Steep slope disturbance can also result in the loss of habitat quality, degradation of surface water quality, silting of wetlands, and alteration of drainage patterns. These processes, when severe, can result in land slumping and landslides that can damage both developed property and ecosystems. The severity and extent of slopes, soil characteristics, and land cover all affect the potential for damages from the disturbance of steep slopes.

Accordingly, the below-listed goals and objectives will guide the regulation and management of the Township’s Preservation Area Steep Slope Protection Areas.

1. Maps and delineations of Steep Slope Protection Areas should be updated and improved as better information becomes available (i.e., through enhanced mapping anticipated to be made available from the Highlands Council) and/or as new areas are identified through project reviews pertaining to individual sites and properties.
2. Land disturbance within all Steep Slope Protection Areas should incorporate Low Impact Development (see Section I) techniques to minimize the extent of such disturbance and the potential negative impacts resulting from it.
3. Land disturbance within areas of Severely and Moderately Constrained Slopes should be prohibited altogether, with exceptions only for linear development meeting the requirements of NJDEP Preservation Area Rules (at N.J.A.C. 7:38-3.8(c)1-4).

**D. CRITICAL HABITAT**

Section 310 of the adopted Bedminster Conservation Plan recognizes that threatened and endangered wildlife species are indicators of ecological diversity and environmental quality and, by extension, human health. The extensive number of species in the Township was cited as a testament to the historical emphasis on land stewardship and the Conservation Plan recommended that the Township pursue the following actions:

- a. Prepare an ongoing inventory of the threatened and endangered species;

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- b. Assure strict adherence to all relevant Township, County, and State laws in order to prevent adverse impacts on the survival of threatened and endangered species ;
- c. Develop a list of habitat requirements for endangered species, and map and preserve critical habitats through the planning process or development review process; and
- d. Reduce permitted residential density.

Critical Habitat within the Preservation Area appears in the ERI mapping duplicated herein as Exhibit M, "Critical Wildlife Habitat." This Plan recognizes and incorporates the descriptions, definitions, delineations and values regarding Critical Habitat as discussed in the ERI.

Biodiversity is the variety of plant species, animal species, and all other organisms found in a particular environment and is a critical indicator of ecological integrity. Habitat protection is critical to maintaining biodiversity including the many rare, threatened and endangered plant and animal species of the Highlands Region. There are three categories of Critical Habitat in the Highlands Region: 1) Critical Wildlife Habitat (habitat for rare, threatened or endangered animal species); 2) Significant Natural Areas (regionally significant ecological communities, including habitat for documented threatened and endangered plant species); and 3) vernal pools (confined, ephemeral wet depressions that support distinctive, and often endangered, species that are specially adapted to periodic extremes in water pool levels). Critical Wildlife Habitat areas are designated based on the presence of, and associated habitat required for, the survival and propagation of species of concern.

Of the three categories of Critical Habitat, Bedminster's Preservation Area contains only the first. The below-listed goals and objectives will guide the regulation and management of Bedminster Township Preservation Area Critical Wildlife Habitat.

- 1. To prohibit the direct impact of new human development or expansion or increased intensity of existing development within Critical Habitat.
- 2. To promote the restoration and enhancement of impaired lands in Critical Habitat.
- 3. To develop and adopt a Habitat Conservation and Management Plan(s), including minimum performance standards and criteria as outlined below, for the protection, enhancement and restoration of lands within Critical Habitat.
  - a. Require use of Low Impact Development Best Management Practices (see Section I) to, in this order: 1) avoid the disturbance of Critical Habitat, 2) minimize impacts to Critical Habitat, and 3) mitigate all adverse modification to Critical Habitat so that there is no net loss of habitat value. Habitat value is determined by quantity (e.g., acreage), quality (e.g., core forest vs. edge forest), type (e.g., scrub-shrub), and function (e.g., winter hibernacula for timber

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- rattlesnakes). The mitigation requirement of no net loss of habitat value shall ensure that all four elements are accounted for and included in the mitigation design. Mitigation must meet the habitat and life-cycle requirements of the specific impacted species.
- b. Establish criteria for mitigation of disturbed Critical Habitat. Mitigation should be required for all adverse modification to Critical Habitat so that there is no net loss of habitat value.
  - c. Establish performance standards for the enhancement or restoration of historically disturbed Critical Habitat.
  - d. Provide a GIS or map-series Critical Habitat Overlay to identify Critical Habitat, that highlights:
    - i. Habitat in need of protection from fragmentation and other anthropogenic impacts;
    - ii. Habitat critical to maintaining wildlife and plant populations; and
    - iii. Habitat that serves other essential ecosystem functions, including, but not limited to, carbon sequestration and ground water recharge.
  - e. Develop guidelines for habitat stewardship, including, but not limited to prevention of habitat fragmentation through open space preservation and corporate, non-profit, and community involvement in creating, protecting, and restoring habitat.
4. To require that applications for development affecting Critical Habitat be subject to the standards and criteria outlined in the applicable Habitat Conservation and Management Plan.
- a. Prohibit direct impacts from new development or expansion or increased intensity of existing development that will jeopardize the continued existence of, or result in the likelihood of the destruction or adverse modification of Critical Habitat, except as permitted through the issuance of a waiver from the Highlands Council or the NJDEP.
  - b. Prohibit indirect impacts from activity that is off-site, adjacent to, or within Critical Habitat that will jeopardize the continued existence of, or result in the likelihood of the destruction or adverse modification of Critical Habitat, except as permitted through the issuance of a waiver from the Highlands Council or the NJDEP.
  - c. Prohibit modifications to the delineation of Critical Wildlife Habitat, except as permitted through the issuance of a waiver from the Highlands Council or the NJDEP.



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**E. CARBONATE ROCK**

Bedminster’s Conservation Plan acknowledges that the Township lies within two (2) physiographic provinces, with the area north of Pottersville Road being situated in the Highlands with gently sloping to steep upland areas underlain by quartzite, gneiss and limestone rock. As one of only three communities in Somerset County “...underlain by solution-prone carbonate rocks”, Bedminster’s Master Plan has long recognized the distinctive geologic characteristics of the Township’s northern tier.

Carbonate Rock Areas within the Preservation Area appear in the ERI mapping duplicated herein at Exhibit P, “Carbonate Rock Areas.” This Plan recognizes and incorporates the descriptions, definitions, delineations, and issues of concern regarding carbonate rock areas as discussed in the ERI.

Of particular concern to Bedminster Township, are the potential negative impacts of land development practices that do not properly consider the constraints and challenges presented by carbonate rock areas. As discussed in the ERI, dissolution of underlying carbonate rocks (such as limestone and dolomite) by surface water or ground water can cause surface depressions and the development of such features as sinkholes, sinking streams, enlarged bedrock fractures, caves and underground streams. Sinkholes function as funnels, directing surface water runoff into karst aquifers with little or no attenuation of any transported contaminants. Stormwater basins, septic system leaching fields, sewers, agricultural runoff, lawn runoff, underground pipelines, and soil disturbance may also contribute contaminants directly to ground water through karst features. Soils in sinkhole bottoms may be thin or non-existent. In addition to ground water concerns, karst areas can lead to public safety concerns. Sinkholes present a geologic hazard as they may undermine such infrastructure as stormwater basins, roads, sewer lines, septic systems, and natural gas lines.

Accordingly, the below-listed goals and objectives will guide the regulation and management of Bedminster Township Preservation Area Carbonate Rock Areas.

1. To continuously update and improve maps and delineations of Carbonate Rock Areas as better information becomes available (i.e., through enhanced mapping technologies) and/or as new areas are identified through project reviews pertaining to individual sites and properties.
2. To develop maps identifying all lands that drain into established Carbonate Rock Areas, for easy reference by applicants, reviewing officials, and Land Use Boards. This will ensure that consideration is given to the protection of affected Carbonate Rock Areas (whether on- or off-site) during the course of development reviews.
3. To carefully examine land development applications for potential impacts to Carbonate Rock Areas, whether by direct disturbance, or by indirect means such as introduction of additional stormwater runoff.

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- a. To require submission of any and all information, technical data, geotechnical studies and/or analyses that may be necessary to locate and determine the extent of affected carbonate rock features during the course of development reviews.
  - b. To ensure that potential carbonate-rock-related hazards to public health or safety, to existing structures (including public infrastructure), and to ground or surface water quality are avoided, minimized or otherwise addressed by incorporation of appropriate measures and/or design features into project plans prior to approval of such development applications. Preference should be given to nonstructural approaches, where feasible, such as avoiding carbonate rock features altogether, and ensuring that existing conditions relating to them (where satisfactory) are not modified.
4. To ensure that issues and concerns related to carbonate rock are similarly evaluated and addressed in the planning, design, construction and maintenance of public infrastructure projects, including those discussed in the Utilities Service and Transportation/Circulation Plan Elements of this Master Plan.
  5. To prohibit, from Carbonate Rock Areas and from lands identified as draining into such areas, the construction or installation of new uses, structures or facilities that present an unacceptable risk of discharge, including but not limited to: solid waste landfills, hazardous waste storage and disposal facilities, hazardous materials storage and handling facilities, and underground storage tanks.

**F. WATER RESOURCES AVAILABILITY**

Preservation Area water availability is represented by the ERI mapping duplicated herein at Exhibit R, "Net Water Availability." This Plan recognizes and incorporates the descriptions, definitions, analyses and issues of concern regarding water availability as discussed in the ERI. Based on the Low Flow Margin analytical method described in the ERI, Bedminster Township's four (4) Preservation Area HUC14 subwatersheds include 2 having positive net water availability, and 2 HUC14's that have been determined to be in deficit. Most of the Preservation Area portion of Bedminster has positive net water availability, although small areas of deficit are seen adjacent to Pottersville and east of Route 206.

The availability of water for human use is a critical factor in determining the capacity for growth and continued economic vitality in the Township Preservation Area. The availability of water for ecological purposes is critical to sustaining the aquatic ecosystems of streams, ponds and lakes. Of particular concern to the Township is the potential for overuse of water to reduce base flows, impair ecological function and integrity, and reduce the reliability of potable water supplies that the municipality depends upon.

Accordingly, the below-listed goals and objectives will guide the regulation and management of Township Preservation Area water availability.

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1. To protect, restore (if applicable) and enhance the availability of surface and ground water in the Bedminster Township Preservation Area.
2. To ensure that increasing water demands do not exceed Net Water Availability or exacerbate existing deficits of subwatersheds.
3. To strictly limit consumptive and depletive water uses to the water availability in each HUC14 subwatershed.
4. To provide limited water availability (Conditional Water Availability) within a Current Deficit Area with appropriate standards regarding its use and rigorous requirements for mitigation, effective only until such time as a municipal Water Use and Conservation Management Plan has been developed and adopted.
5. Within Protection Zone and Conservation Zone subwatersheds, to give highest priority for the use of non-agricultural Net Water Availability or Conditional Water Availability addressing a documented existing or imminent threat to public health and safety from contaminated domestic and other on-site water supplies that is of sufficient scale to justify a public water supply and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. To assign secondary priority to conservation design development that complies with the Lot Size Averaging Ordinance.
6. Within Existing Community Zone subwatersheds, to give highest priority for use of Net Water Availability or Conditional Water Availability to addressing a documented threat to public health and safety from contaminated water supplies. To assign secondary priority where appropriate, to infill development.
7. To encourage agricultural and horticultural enterprises located in Conservation Zone watersheds to minimize consumptive water uses through efficiency measures.
8. To require the use of water conservation, recycling and reuse methods (where appropriate) and devices for any redevelopment or development activity, including renovations to existing buildings, to minimize consumptive water use. This should include mandatory collection and use of stormwater to serve non-agricultural irrigation needs and to the extent feasible, other non-potable purposes.
9. To ensure that proposed public water supply and wastewater service areas, and new or increased water allocations and transfers will not directly or indirectly cause or contribute to a Net Water Availability deficit, and where feasible will help mitigate any existing deficit.
10. To ensure efficient and effective use of water availability, reduction and elimination of water deficits, and mitigation of new consumptive or depletive use in any Current Deficit Areas or subwatersheds that could become deficit areas based on projected development and water uses.

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11. To permit new consumptive or depletive water uses within a Current Deficit Area only under the auspices of a Water Use and Conservation Management Plan; or until such a Plan is in place, to permit such uses only within the allocated Conditional Water Availability and provided that mitigation of the proposed use is accomplished within the same HUC14 subwatershed through: a permanent reduction of existing consumptive and depletive water uses; ground water recharge in excess of the requirements of N.J.A.C. 7:8 (Stormwater Management Rules); or other permanent means.
12. To develop and implement a Water Use and Conservation Management Plan that sets forth the manner and mechanisms by which to achieve each of the preceding goals and objectives.
  - a. Where developed for Current Deficit Areas, the Plan must include provisions to reduce or manage consumptive and depletive uses of ground and surface waters as necessary to reduce or eliminate deficits in Net Water Availability, or to ensure continued stream flows to downstream Current Deficit Areas from Existing Constrained Areas, to the maximum extent practicable within each HUC14 subwatershed.
  - b. For Current Deficit Areas, the Plan must in addition include a detailed implementation plan and schedule indicating how and when the current deficit will be resolved in the applicable subwatershed(s) prior to approval of new water uses in the subwatersheds with the most severe deficits (e.g., in excess of 0.25 million gallons per day), and the plan shall be implemented prior to initiation of new water uses.
  - c. The Plan must also ensure that transfers between or from Highlands Subwatersheds occur only where no viable alternative exists to meet public health, safety and welfare needs and where no impairment of subwatershed resources will result.

**G. PRIME GROUND WATER RECHARGE AREAS**

Prime Ground Water Recharge Areas within the Preservation Area appear in the ERI mapping duplicated herein at Exhibit S, "Prime Ground Water Recharge Areas." This Plan recognizes and incorporates the descriptions, definitions and delineations for Prime Ground Water Recharge Areas (PGWRAs) as discussed in the ERI. Prime Ground Water Recharge Areas are those lands within a HUC14 subwatershed that most efficiently provide in the aggregate, 40 percent of total drought recharge volume for the HUC14 subwatershed, as determined in accordance with parameters set forth in the ERI. Protection of such areas is clearly vital to maintaining the quality and quantity of the ground water resources upon which both human and non-human communities in the Preservation Area so heavily rely.

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Accordingly, the below-listed goals and objectives will guide the regulation and management of Township Highlands Prime Ground Water Recharge Areas.

1. To protect, enhance, and restore the quantity and quality of Prime Ground Water Recharge Areas.
2. To require use of Low Impact Development (see Section I) and other Best Management Practices to maximize natural ground water recharge and minimize the need for engineered recharge methods.
3. To restrict land use and development activities that reduce natural ground water recharge volumes in PGWRAs or that may contribute to or result in degradation of ground water quality, whether directly or indirectly.
4. To avoid disturbance of lands identified as PGWRAs to the maximum extent feasible, and to minimize such disturbance where it cannot be avoided. Where disturbances do occur in PGWRAs, to require mitigation measures to enhance pre-construction recharge volumes.
5. To prohibit land uses and activities that pose significant risk of ground water contamination from locations delineated as PGWRAs. Such uses (and any structures devoted or related thereto) should include at minimum, those designated as Major and/or Minor Potential Contaminant Sources (PCS) by the Highlands Council (see Appendices A, B and C)).
6. To identify and implement opportunities for the restoration or enhancement of recharge in Prime Ground Water Recharge Areas and other lands through such means as the retrofit or rehabilitation of stormwater recharge facilities, land management improvements and reforestation.
7. To achieve a net improvement in ground water volume and quality through enhanced infiltration, pretreatment and other available means.

#### **H. WATER QUALITY**

Section 1204 of the adopted Bedminster Conservation Plan addresses the issue of *Groundwater Protection with* recommended groundwater protection efforts to address both past and future impacts of human activity, citing toxic substance discharges, non-point source (runoff) pollution, and sanitary waste disposal using subsurface septic disposal systems

The adopted Bedminster Conservation Plan calls maintenance of septic systems “an important aspect of groundwater protection”, noting that poor septic maintenance results in impaired operation and eventual groundwater and surface water pollution. It also recommends public outreach to advocate regular pumping of septic tanks and an

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assessment of existing groundwater conditions, through an environmental audit of groundwater quality that would identify:

1. Underground storage tanks.
2. Gas, fuel and sewer line locations.
3. Large septic systems for commercial/industrial users.
4. Permitted community septic systems.
5. Hazardous substance storage areas and facilities.
6. Permitted N.J.P.D.E.S. groundwater or surface water discharge facilities.

None of the 18 Bedminster Township facilities that had permits from the NJDEP Bureau of Underground Storage Tanks (BUST) to discharge treated water into the groundwater aquifers were situated in the Preservation Area according to Bedminster's Conservation Plan.

This Highlands Plan Element incorporates the descriptions, definitions and summary data regarding water quality by HUC14, as discussed in the ERI. In addition, it incorporates as Exhibit T, "HUC 14s on NJDEP Impaired Waters List.". Water quality affects drinking water, recreation, ecosystems and aesthetic beauty. The most common parameters that may impair surface and ground water quality are fecal coliform bacteria, phosphorus, temperature, arsenic and nitrate-nitrogen. These and other contaminants can either cause health risks if ingested or harm native biota, resulting in non-attainment of designated water uses for the water body.

Water quality is influenced by the type and intensity of land use adjacent to and upstream of the water body. Pollutants are contributed to the environment from a wide variety of nonpoint sources (NPS) including human development (through stormwater and residential runoff, septic systems, fertilizer applications on lawns, and Brownfields or sites (refer to Exhibit C "Highlands Contaminated Site Inventory"), domestic or captive animals, agricultural practices (crop farming, livestock, and manure applications), and wildlife (large populations). Pollutants from these sources can reach water bodies directly, through overland runoff, or through stormwater conveyance facilities. Point sources also exist, primarily wastewater treatment plants serving communities or industrial facilities.

Accordingly, the below-listed goals and objectives apply to the management and regulation of water quality in the Bedminster Township Preservation Area.

1. To protect, restore (if applicable) and enhance water quality in the Preservation Area.

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2. To remedy the pollutant sources associated with existing or historic land uses in conjunction with redevelopment opportunities.
3. To ensure that land use and development is permitted only in such locations, at such densities, and in such manner as to ensure sustainable use of Preservation Area water resources and continued protection and management of critical lands for water quality purposes.
4. To ensure that the municipal portion of any Areawide Water Quality Management Plan or Wastewater Management Plan will not directly or indirectly support development that would be in violation of any adopted Total Maximum Daily Load (TMDL) limits established by NJDEP.
5. To adopt and implement stormwater management controls through a municipal Stormwater Management Plan.
6. To require use of applicable Low Impact Development (see Section I) and Best Management Practices to protect the quality of ground and surface waters.

**I. LOW IMPACT DEVELOPMENT**

This Plan embraces the concept of Low Impact Development (LID) and seeks to ensure its maximum use in land development activities throughout the Preservation Area. LID encompasses a broad array of development and management techniques that can minimize or mitigate the potential adverse impacts of land use and development on the natural environment. LID is used in stormwater management, resource management, “green” building, and sustainable site design. In stormwater management for example, LID techniques can be employed to capture rainfall, filter it through existing vegetation, and maximize its absorption by on-site soils in order to recharge ground water supplies. In site design, LID would incorporate strategies to reduce site disturbance, limit impervious coverage, and integrate existing natural features affecting the site and/or its immediate surroundings into the proposed layout and design.

To accomplish such aims, specific LID standards should be developed and incorporated into Township land use regulations. Because LID practices and innovations continue to emerge, these should include, but by no means be limited to the following:

1. Stormwater management LID standards that preserve or mimic the natural hydrologic features and characteristics of the land.
  - a. Use of stormwater management features that maintain, restore and enhance the pre-existing natural drainage patterns of the site.
  - b. Limitations on impervious coverage allowances to maximize stormwater infiltration and reduce runoff.

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- c. Requirements for site-specific hydrologic studies which identify the velocity, volume and pattern of water flow into, through and flowing from a parcel proposed for development.
    - d. Requirements that stormwater management systems employ a “design with nature” approach by use of grass channels, dry swales, wet swales (vegetated channels designed to retain water or marshy conditions that support wetland vegetation), infiltration basins, bio-swales and water gardens, constructed wetlands, green roofs, and other low impact approaches to attenuate and control stormwater and provide multiple environmental benefits.
  2. LID practices that minimize land disturbance during construction activities.
    - a. Requirements for site-specific analysis of environmental features and constraints as an integral component of site design.
    - b. Limitations on site disturbance, soil compaction, clearing and grading to the minimum necessary to allow for permissible development.
    - c. Provisions to minimize soil erosion and airborne dust during construction and to protect streams and other water bodies from silt and sedimentation.
  3. LID best management practices where any development application proposes disturbance of a Preservation Area resource, including but not limited to Steep Slope Protection Areas, Forest Areas, Critical Habitat Areas, Highlands Open Waters and Riparian Areas, and Prime Ground Water Recharge Areas.
    - a. Preservation Area resources should be identified as a first step in site planning.
    - b. To the maximum extent practicable Preservation Area resources should be avoided or their disturbance minimized through site design.
    - c. The quality and value of Preservation Area resources located on development sites should be maintained by use of LID strategies that minimize the impacts of development to the maximum extent possible.
  4. LID practices in design of sites, buildings, structures and roadways. Development and redevelopment projects should follow a prescribed conservation design planning process that considers existing site features and site context; maximizes opportunities for open space and connections to open space systems; and incorporates LID practices in all aspects of stormwater management, site layout, and resource protection. In addition to the previously listed items (1-3, above) these include but are not limited to the following:
    - a. Use of water conservation measures in site layout and structures, including but not limited to such practices as water efficient landscaping (including use of



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native and drought-tolerant plant species), rain collection systems, use of gray water, and water-efficient landscape irrigation.

- b. Use of low maintenance landscaping that encourages retention and planting of native vegetation and minimizes lawn areas and use of fertilizers and pesticides.
- c. Use of pervious paving materials and minimization of impervious surfaces.
- d. Use of micro-climate conditions to maximize solar gain for winter heating and minimize solar gain during high temperature summer conditions.
- e. Re-use and recycling of building materials when development involves demolition.
- f. Inclusion of energy-efficient features in site layouts and buildings.
- g. Roadway design standards (subject to RSIS limitations) that incorporate LID techniques to address stormwater management, limit impervious coverage, ensure planting of native and drought-resistant vegetation, and integrate other “green street” design initiatives.

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**UTILITY SERVICES PLAN**

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The adopted Bedminster Water and Sewer Utilities Services Plan provides an inventory of the existing water and sewer infrastructure elements and reviews the need for, and future locations of, water supply and sewage treatment facilities and service areas. It cites a range of wastewater management facilities serving Bedminster, including centralized sewers, package treatment facilities and on-site septic systems, and notes that centralized sewers in the eastern highway corridor area serve most residences and businesses but that most of the land area within the Township is beyond the range of these sewer systems, and on-site septic systems prevail throughout central and western Bedminster.

The adopted Bedminster Water and Sewer Utilities Services Plan notes that there are no plans to expand wastewater facilities beyond adopted Sewer Service Areas. The centralized wastewater treatment capacity within Bedminster Township has been confined to the highway corridor area, and will not affect the Preservation Area, where septic systems are the primary method of wastewater treatment. On-site wastewater treatment systems in the Preservation Area serve the Willow School and the Purnell School.

The adopted Bedminster Water and Sewer Utilities Services Plan notes that Bedminster Township is provided potable water supplies from three primary sources (New Jersey American Water Company and private wells), and within the Preservation Area, "NJ American Water Company provides service to the Pottersville Road area and Pottersville, as well as areas south of Pottersville along Black River Road" where it serves about 80 customers.

It is the overarching policy of this Highlands Plan element to ensure that development of the Preservation Area does not exceed the available environmental and infrastructural capacity to support it. .

This Plan recognizes that future development must only occur within the carrying capacity of water resources, as to both quality and quantity. It also recognizes the importance of ensuring that water supply and wastewater utility capacities are made available in ways that provide maximum benefit within the constraints of water availability and water quality protection, and are used in ways that provide cost-effective and efficient service. Utility services support more dense development than on-site wells and septic systems, and therefore can provide for more housing and job creation per square mile. They also can result in more intensive environmental impacts, however, and a greater strain on available water resources. It is of particular concern to the Township, that utility service locations occur in the most appropriate portions of the Preservation Area and that development reliant upon wells and/or septic systems occur only at densities that can be sustained by existing environmental characteristics.

Accordingly, the below-listed goals and objectives will guide Bedminster Township's regulation and management of Preservation Area water and wastewater utilities, and use and maintenance of septic systems in the Preservation Area.

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- A. To prohibit the expansion or creation of public water supply systems, wastewater collection and treatment systems and community on-site treatment facilities in the Preservation Area unless approved through a Highlands Applicability Determination (HAD) or a Highlands Preservation Area Approval (HPAA), with waiver pursuant to the NJDEP Preservation Area rules at N.J.A.C. 7:38. An HPAA is a permit to undertake any major Highlands development in the Preservation Area, as regulated pursuant to the Highlands Act.
- B. To require that development supported by new or expanded public water supply systems and/or wastewater collection and treatment systems (where approved, as provided above) occur at a density and intensity that ensures efficiency and cost-effectiveness of the public infrastructure.
- C. To ensure that Carbonate Rock Areas are considered and appropriately protected in the design and construction of any new or expanded wastewater collection/treatment system.
- D. To ensure that on-site wastewater system discharges do not exceed the natural capacity of ground water to attenuate loadings, exacerbate existing nitrate impairment, or contribute to potential nitrate impairment for subwatersheds of the Preservation Area.
- E. To ensure that all development in areas not served by public water supply or wastewater collection and treatment systems is at a density that can be supported by on-site wells and subsurface septic systems, respectively. With respect to septic systems, to determine such densities on the basis of NJDEP Preservation Area Rules where applicable, with nitrate dilution analysis to apply to non-Major Highlands Development and to the developed portion of any Residential Lot Size Averaging Development.
- F. To ensure the development of a Township wide septic system management/maintenance plan.
- G. To maintain the Wastewater Management Plan for the Bedminster Township Preservation Area.

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**CIRCULATION PLAN**

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The existing Master Plan Circulation Plan Element provides detailed information on existing and proposed transportation infrastructure within, or providing access to and from the municipality, including information on all modes and supporting facilities and services. This Plan supplements the existing Element, as applicable to the Preservation Area, to include the additional information and goals and objectives listed below.

Bedminster's adopted Circulation Plan Element responds to the proposals outlined in the Land Use Plan Element, as well as the regional context with Interstate Highways 78 and 287 intersecting in the southeastern part of the Township, impacting on Township efforts to maintain its desirable rural nature. The Bedminster Circulation Plan considered the State Development and Redevelopment Plan (SDRP), the Somerset County Master Plan, the Somerset County Scenic Corridor and Roadway Study (July 1992), the Somerset County Circulation Element Update (August 2001), the 1994 Somerset County Master Plan Circulation Update, the 1999 Somerset County Traffic Calming Study, Access & Mobility 2025 (North Jersey Regional Transportation Plan), and Transportation Choices 2025 (New Jersey Department of Transportation Long Range Plan).

Noting that the majority of local roads in the Township are unpaved, the Circulation Plan cited the Township policy to improve roads only to the degree necessary to provide safe access to the Township's rural environs while also limiting non-local traffic on local roads and directing regional traffic to the County and State highways, which are intended to accommodate such traffic. Managing the rural character of paved roadways is also a priority objective of the Circulation Plan.

The adopted Circulation Plan finds that the County and State road network, and its multiple intersections in the Township's developed eastern corridor area, heavily impact the Township. One of these is Route 206, which bisects the Preservation Area in an area that is burdened by one such intersection at Pottersville Road.

The adopted Circulation Plan indicates that Route 206 north of Lamington Road is routinely used for pedestrian and bicycle access to Bedminster Village, Peapack, and Pottersville and recommends provisions for non-vehicular travel (large shoulders, a walking/bike path, or sidewalks).

The "Highlands Roadway Network" (Exhibit Y) and "Highlands Transit Network" (Exhibit Z) maps together illustrate the regional transportation network and facilities of the Township Preservation Area. Municipal roadways and transportation features interface with those of the region and the state as a whole, as discussed and illustrated in Bedminster's underlying Circulation Plan Element. The Planning Board does not currently anticipate or propose any modifications to the portion of the transportation system located within the Preservation Area.

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As discussed in the ERI, future and existing development and redevelopment in the Preservation Area relies upon a complex network of roads, railways and bridges serving not only the municipality, but the county, the region and the state as a whole. A variety of modes of transportation are vital to ensuring efficient movement of people and goods, including but not limited to automobile, bus, rail, truck, bicycle and pedestrian. By promoting smart growth principles and efficient land use, the municipality and the Highlands Region as a whole can expand access to a multi-modal transportation system while protecting environmentally sensitive areas and Highlands resources.

Accordingly, the following goals and objectives shall guide the development, improvement, and on-going management of the transportation network and supporting facilities of the Bedminster Township Preservation Area.

1. To ensure that transportation facilities and infrastructure are designed and located in a manner that achieves optimal efficiencies in land use and provision of service, while at the same time, protecting the environmental resources and critical environmental areas of the Preservation Area.
2. To enhance opportunities for pedestrian and bicycle access, mobility and safety, through provision of sidewalks, walking trails, pedestrian crosswalks, bicycle lanes and trails, bicycle racks, and networked linkages that both access and connect community facilities, parks, schools and shopping areas, with special focus on completion of the Hike/Bike pathway master plan.
3. To improve public safety through implementation of traffic calming measures in areas with high pedestrian activity.
4. To provide for safe and efficient pedestrian connections including features such as sidewalks, proper lighting, signage, shelters and “green street” initiatives such as those of the New Jersey Department of Transportation’s (NJDOT) Pedestrian Safety Initiative, with special attention to completing the Hike/Bike Pathway master plan.
5. To enhance roadway corridors and encourage pedestrian activity, where appropriate, by installation of ample sidewalk areas with aesthetic enhancements such as street trees, decorative lighting, and benches.
6. To promote safe routes for children to travel to and from school, potentially with the financial and technical assistance of NJDOT’s Safe Routes to School Program.
7. To optimize use of existing roadway capacity by appropriate means, such as increased bus, van, jitney and car pool ridership.
8. To identify roadways designated as scenic byways and, to the extent of municipal jurisdiction, to protect and preserve their defining characteristics in conjunction with the scenic viewsheds they provide access to.

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9. To recognize and support the unique needs of the agricultural industry to move farm vehicles and goods along transportation corridors, and to establish safe travel routes for farmers and agri-tourism, as appropriate in the Preservation Area, to ensure the safety and viability of farming as an occupation.
10. To evaluate the potential growth-inducing effects of roadway improvements that will increase traffic capacity, such as substantial new land use, new residents or new employment.
11. To prohibit road improvements in areas for which a Growth-Inducing Study demonstrates that proposed improvements do not support the resource protection and smart growth policies otherwise established by the Highlands Element, or that are likely to be growth-inducing for lands with limited or no capacity to support human development without adverse impact on Preservation Area resources.
12. To limit road improvements where roads are constrained by topography, adjacent forested lands, or other sensitive environmental features such as critical habitat and equestrian activity.
13. To ensure that road improvements are designed to enhance community character and to avoid adverse impacts to adjoining or otherwise affected properties.
14. To promote land use patterns that support a balance of jobs to housing as a means of reducing motor vehicle trips and average trip lengths.
15. To seek and encourage to the extent applicable, development and redevelopment in areas proximate to rail stations and along bus routes.
16. To promote development of mixed land uses, where appropriate, in locations that result in reduced motor vehicular trips and average trip lengths.
17. To permit and encourage use of shared parking areas, driveways, and other such infrastructure to limit paved surfaces and maximize efficiencies.
18. To ensure coordination between transportation planning and the Land Use Plan Element and to integrate smart growth principles into both.

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**LAND PRESERVATION AND LAND STEWARDSHIP PLAN**

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Bedminster's adopted Open Space and Recreation Plan Element provides detailed information on existing and proposed open space preservation and recreational opportunities in the community and outlines a coherent vision to provide Bedminster's residents with adequate active recreation facilities and protect and enhance Bedminster's natural and rural environment.

A central element of Bedminster's stewardship approach is Bedminster's Greenway Plan, which, in addition to public open spaces, includes the following:

- a. *Environmental*
  - 1. Stream corridors;
  - 2. Steep slopes;
  - 3. Forested areas;
  - 4. Grassland areas;
  - 5. Ridgelines;
  - 6. Threatened and endangered species habitat.
  
- b. *Cultural*
  - 1. Historic sites and districts;
  - 2. Traditional settlements and rural agricultural landscapes;
  - 3. Scenic corridors including unpaved roads;
  - 4. Former railroad rights-of-way;
  - 5. Pedestrian trails;
  - 6. Bikeways and hiking paths and trails.

Protection of natural resources is the primary objective of the Greenways of Bedminster. However, an extended greenway network also includes active recreation opportunities, such as are found at River Road Park, Miller Lane, and "The Pond".

The primary greenways include the North Branch of the Raritan River, the Lamington River (or Black River) and the Second Watchung Ridge. Within the Preservation Area greenway, elements include the primary greenway element of the Lamington River and two secondary greenway tributaries, Bamboo-Herzog Brook, which extends from Chester Township through the Pottersville National Register District, to join the Lamington and Axel Brook, which drains the area between Pottersville Road, Larger Cross Road and Long Lane.

The adopted Recreation and Open Space Plan identifies gateways that are essential elements of the Township's scenic character which are experienced by those entering Bedminster Township from neighboring municipalities. Several of these gateways, which are where the experience of Bedminster's countryside unfolds for the viewer, occur at the Township's borders that also form the boundary of the Preservation Area.

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Scenic roadways are also identified as elements in the greenway system in Bedminster's Conservation Plan offering the scenic vistas and viewsheds that merit management to protect community character.

This Highlands Plan element supplements the existing Element, as applicable to the Preservation Area, to include the information and goals and objectives listed below.

A mapped inventory of Preserved Lands in the Township Preservation Area, current through October 2011, appears at Exhibit AA, "Preserved Lands" (duplicated from the ERI). This Plan in addition incorporates Exhibit BB, "Highlands Conservation Priority Areas," and Exhibit GG, "Highlands Agricultural Priority Area." This Plan recognizes and incorporates the definitions, derivations and delineations used to develop these maps, as provided in the ERI.

Preserved Lands in the Bedminster Township Preservation Area include lands under ownership by the municipality, the county, the state, and non-profit land trusts. In addition, Preserved Lands includes dedicated easements (such as Conservation Easements) to the extent these are currently known and identified (i.e., by deed description) for mapping purposes. (The Planning Board recognizes and will address the need for a more complete inventory of all such easements in the post-Petition approval phase of Plan Conformance, with the assistance of the Highlands Council.) In total, the maps indicate 144 acres of Preserved Lands. Approximately 57% (82 acres) constitutes preserved farmland, and 43% (62 acres) is set aside for other preservation purposes.

Highlands Conservation Priority Area lands are those designated a high priority for preservation due to exceptional water and ecological resource value. The priority order derives from the Highlands Council Resource Assessment methodology, which identifies and ranks Highlands lands based on a combination of indicators, including but not limited to: watershed conditions, Highlands Open Waters, riparian areas, prime ground water recharge areas, forests, critical habitat and steep slopes.

The Highlands Agricultural Priority Area, lastly, consists of those lands determined by the Highlands Council, in coordination with the NJDA and the State Agriculture Development Committee (SADC), based on an agricultural resource assessment, to have the highest agricultural resource values.

The following goals and objectives will guide the future identification, prioritization, dedication, and stewardship of Preserved Lands in Bedminster Township's Preservation Area:

1. To recognize and consider Highlands Council prioritization criteria in addition to existing Township criteria, in making determinations regarding non-agricultural Land Preservation (whether by fee simple or easement dedication). Highlands priorities are ordered as follows:
  - a. Lands within Highlands Conservation Priority Areas; and



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- b. Lands within Highlands Resource Areas generally, including but not limited to forested portions of Forest Resource Areas, Critical Habitat Areas, and Riparian Areas, particularly any portion of a Resource Area designated as “High Integrity” or “High Resource Value.”
2. To recognize and consider Highlands Council prioritization criteria in addition to existing Township criteria, in making determinations regarding Agricultural Land Preservation whether by fee simple, easement dedication transfer of development rights, or other agricultural land conservation techniques. Highlands priorities are ordered as follows:
  - a. Farmland designated as Agricultural Priority Area (see Exhibit GG); and
  - b. Farmland located within an Agricultural Resource Area (see Exhibit FF).
3. To maintain a current Recreation and Open Space Inventory (ROSI) where required by the NJDEP Green Acres Program.
4. To seek ways to continue local land acquisition for preservation and stewardship programs or to expand existing open space and stewardship programs.
5. To identify lands subject to stewardship programs within this Land Preservation and Land Stewardship Plan and to provide that information to the Highlands Council.
6. To require that conservation or land stewardship easements imposed during the course of development applications be enforceable by the Highlands Council and at least one of the following entities, as qualified and amenable in accordance with the particular circumstances: Bedminster Township, the County Agriculture Development Board, the SADC, Green Acres, or a non-profit land trust organized pursuant to § 501 (c)(3) of the federal tax code and engaged in the protection of land for the purpose of providing long-term stewardship of land resources.
7. To establish a stewardship and monitoring program for preserved lands owned by or dedicated to the Township. This objective may be accomplished with the assistance of a non-profit land trust organized pursuant to § 501 (c)(3) of the federal tax code and engaged in the protection of land for the purpose of providing long-term stewardship of land resources.
8. To develop and implement a Forest Management Plan or Forest Stewardship Plan consistent with the standards of the NJ Forest Stewardship Program for application to municipally-owned forest lands.
9. To ensure periodic monitoring of easement restrictions protecting Critical Habitat Areas, associated species and ecological communities from any changes in land use or management practices that would impair these resources.

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10. To implement Riparian Area restoration practices on Preserved Lands that give priority to ecological and watershed protection measures.
11. To identify and preserve opportunities for outdoor recreation, including a variety of active and passive recreation options, in such locations and in such manner as to ensure environmental resource protections, while addressing the needs of the local population for physical activity, social interaction, connection with nature and the natural environment, and enjoyment of the outdoors.

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**AGRICULTURE RETENTION/FARMLAND PRESERVATION PLAN**

The existing Master Plan has an Agriculture Retention/Farmland Preservation Plan Element providing detailed information on existing and proposed farmland preservation priorities in the community.

Bedminster Township’s adopted Farmland Preservation Plan (FFP) is designed in recognition of the community’s pattern of development, which features the more intensive forms of development within the easterly highway corridor area. The Plan prioritizes retention of lands outside of these areas in order to retain the substantial countryside character, which pervades most of the Township. Citing the importance of agricultural and equestrian activity and use of land in shaping community character, the FPP notes that the Township has a solid agricultural land base, including many large parcels in common ownership. Bedminster’s heartland is dominated by a variety of agricultural uses and the proprietors of these lands in many cases have tended these farms for generations. In the Preservation Area, Bedminster’s farmland preservation efforts have permanently preserved the Piancone property, noted in the list below.

The purpose of the Farmland Preservation Plan is “to provide a blueprint for maintaining Bedminster’s agricultural character, and preserving and promoting the vitality of the agricultural industry in the Township” by protecting the agricultural heartland through a combination of strategies, including the acquisition of development rights through purchase or other means, including donations by landowners. Bedminster’s farmland preservation program has been quite successful to date, accounting for 1,909 acres through 2008, as seen in the table below:

**Preserved Farmland**

<b>Property</b>	<b>Program</b>	<b>Acres</b>
Marano I & II	Bedminster PIG	85.5
Marano III	Donation to County through Bedminster PIG	31.7
Harms	Bedminster PIG	29.6
Hayfields I & II	Bedminster PIG	71.4
EG Anderson I & II	County Easement Purchase	377
<i>Staats*</i>	<i>County Easement Purchase</i>	<i>37</i>
Doyle	County Easement Purchase	96.6
Marki	County Easement Purchase	29.9
Piancone I, II & III	State Direct (County and Municipal Cost shares)	147
Buffalo Country	State Direct Easement	357

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<b>Property</b>	<b>Program</b>	<b>Acres</b>
<i>Sneardowski Farm</i>	<i>County Purchase – farm leased</i>	<i>116</i>
Stanley	Private Agricultural Easement donation to Nonprofit	50
Todd Easement	Private Agricultural Easement donation to Nonprofit	60
Eweson	Private Agricultural Easement donation to Nonprofit	80
Filley	Private Agricultural Easement donation to Nonprofit	87
Merck	Private Agricultural Easement donation to Nonprofit	97
Stanley	Private Agricultural Easement donation to Nonprofit	50
Starr	Private Agricultural Easement donation to Nonprofit	32
Mantz	Agricultural and conservation easement purchase	14.2
Brady Easement donation	Private Agricultural Easement donation to Nonprofit	52
<b>TOTAL</b>		<b>1,900.9</b>

The focus of Bedminster’s adopted Farmland Preservation Plan is to develop a cohesive strategy that preserves the most productive agricultural lands for continued agricultural use, encourages the expansion of agricultural pursuits and a diversification of agricultural activities, and maintains the scenic character of the Township, particularly at the gateways where residents and visitors enter the Bedminster countryside.

This Plan supplements the existing Element, as applicable to the Preservation Area, to include the information and goals and objectives listed below.

A mapped inventory of Preserved Farmland in the Township Preservation Area, current through October 2011, appears at Exhibit DD, “Preserved Farms, SADC Easements, All Agricultural Uses.” In addition, this Plan incorporates Exhibit EE, “Important Farmland Soils,” Exhibit FF, “Agricultural Resource Area,” and Exhibit GG, “Highlands Agricultural Priority Area.” This Plan recognizes and incorporates the definitions, derivations, and delineations used to develop these maps, as provided in the ERI and in all background technical data which derive from: the NJDA, the SADC, the NJDEP, and the Natural Resources Conservation Service (NRCS), the Highlands RMP and Highlands Council *Sustainable Agriculture Technical Report*.

*Preserved Farmland* includes farms that are preserved through the SADC Farmland Preservation Program, farms that have final approval from the SADC, and farms under the SADC eight-year easement program. *All Agricultural Uses* includes lands currently serving farming and/or other agricultural purposes, whether permanently deed restricted or not. The map of *Important Farmland Soils* provides a delineation of the four farmland soil classifications as prepared by the U.S. Department of Agriculture (USDA), NRCS, Soil Survey Geographic Database for farmland soil quality, including:

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- a) Prime Farmland Soils – Soils having the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops. It has the soil quality, growing season, and moisture supply needed to produce high yields of crops when treated and managed according to acceptable farming methods. Prime farmland soils are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.
- b) Soils of Statewide Importance – Soils that produce high yields of crops when treated and managed according to acceptable farming methods. This soil may support yields as high as Prime farmland if conditions are favorable.
- c) Unique Farmland Soils – Soils used for special crops (such as cranberries in the New Jersey Pinelands). Unique soils are determined on a statewide basis by the State Soil Conservation Committee.
- d) Locally Important Farmland Soils – Soils designated and ranked by the County Agriculture Development Board. Locally Important soils include those soils that are not Prime or of Statewide Importance and are used for the production of high value food, fiber, or horticultural crops.

The Agricultural Resource Area consists of those areas of most concentrated and contiguous agricultural uses in the Preservation Area, using Important Farmland Soils as a critical factor in the delineation. Highlands Agricultural Priority Areas, lastly, are those determined by the Highlands Council, in coordination with the NJDA and SADC, based on an agricultural resource assessment, to have the highest agricultural resource values.

The overriding policy of this Plan is to ensure the long-term sustainability of agricultural resources and the viability of agriculture as a business in the Preservation Area. Achieving this aim requires maintenance of a healthy agricultural environment with a sufficient agricultural land base. Accordingly, the below-listed goals and objectives will guide the future land use and management of Bedminster Township's Agricultural Resource Area.

- 1. To promote farmland preservation and limit non-agricultural uses within the Agricultural Resource Areas.
- 2. To recognize and consider Highlands Council prioritization criteria in addition to existing Township criteria, in making determinations regarding Agricultural Land Preservation (whether by fee simple, easement dedication, transfer of development rights, or other agricultural land conservation techniques). Highlands priorities are ordered as follows:
  - a. Farmland designated as Agricultural Priority Area, as defined in the Land Preservation and Land Stewardship Plan Element and delineated in Exhibit GG; and
  - b. Farmland located within an Agricultural Resource Area, as defined above and delineated in Exhibit FF.

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3. To limit non-agricultural uses within the Agricultural Resource Area to the extent feasible, to those designed to support the preservation of farmland, avoid conflicts with agriculture, maintain and enhance the sustainability and continued viability of the agricultural industry, protect Important Farmland Soils, and meet the resource management and protection requirements of the Conservation Plan Element.
4. To require that, where preservation of agricultural lands within the Agricultural Resource Area is not feasible, any residential development be permitted only under conservation design parameters, such as lot-averaging development.
  - a. To require that lot-averaging or conservation design development within the Agricultural Resource Area support the preservation of farmland, avoid conflicts with agriculture, maintain and enhance the sustainability and continued viability of the agricultural industry, protect Important Farmland Soils, and meet resource management and protection requirements of the Conservation Plan Element.
  - b. To require that all lot-averaging or conservation design development within the Agricultural Resource Area be buffered appropriately to avoid conflicts between non-agricultural development and agricultural activities, and to protect existing agricultural uses and sensitive environmental resources.
  - c. To require that all land preserved in perpetuity for agricultural purposes as a result of lot-averaging be subject to a conservation easement enforceable by the Highlands Council and at least one of the following: the municipality, the County Agriculture Development Board or the SADC.
  - d. To permit retention of the original farmstead or construction of new farmsteads associated with preserved agricultural lands in lot-averaging developments, wherever feasible.
  - e. To require implementation of best management practices, including development and implementation of a Farm Conservation Plan that addresses the protection of water and soil resources prepared by the USDA NRCS, Technical Service Provider (TSP), appropriate agent or NJDA staff, and approved by the local Soil Conservation District (SCD).
5. To permit family and farm labor housing in the Agricultural Resource Area as appropriate, to support the viability of permitted agricultural operations, subject to compliance with the resource management and protection requirements of the remainder of the Highlands Element.
6. To promote the Right to Farm Act and to incorporate land use regulations that are consistent with and further its intents and purposes.

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7. To protect and enhance surface and ground water quality and natural resources within the ARA by promoting the use of Best Management Practices including the use of USDA NRCS and Farm Service Agency cost-share programs.
8. To promote the long-term viability of the local agricultural industry by promoting and utilizing existing county, state, and federal agriculture related programs and developing land use regulations and programs where appropriate, in support of direct marketing, organic farming, niche markets, agri-tourism initiatives such as farmers' markets and roadside stands (located on or off the site of an active farm), ancillary business opportunities, community supported agriculture, and other such projects, programs, or activities.

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**COMMUNITY FACILITIES PLAN**

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The existing Master Plan has a Community Facilities Plan Element providing detailed information on all existing community facilities, including but not limited to government offices, fire, police, and rescue squad facilities, parks and playgrounds, educational facilities, libraries, public works facilities and yards, treatment works, storage depots, and so forth. This Preservation Area element supplements the existing Element, as applicable to the Preservation Area, to include the additional goals and objectives listed below

The overriding policy of this Plan is to ensure that community facilities reflect community needs while minimizing resource impacts and maximizing the efficiency of resource use. Achieving this aim requires attention to the design and location of community facilities. Accordingly, the below-listed goals and objectives will guide community facilities in Bedminster Township.

1. To locate and maintain community facilities and services that support compact development patterns and shared services, and provide a high level of service.
2. To identify existing and planned community facilities and to encourage shared service opportunities, whether at intra- or inter-municipal levels.
3. To identify for all such facilities, realistic options to enhance energy efficiencies, incorporate “green” building materials and technologies, reduce pollutant emissions, and minimize “carbon footprints;” and to develop a community strategy for implementing them.
4. To consider and incorporate all feasible Low Impact Development techniques in the design, development, operation and management of existing and proposed community facilities. (For description and discussion of LID techniques, see Conservation Plan Element.)
5. To the limited extent applicable in the Township Preservation Area, to incorporate the goals, objectives and resource protections discussed throughout this Highlands Element into the planning and development of properties and facilities under municipal jurisdiction.



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**SUSTAINABLE ECONOMIC DEVELOPMENT PLAN**

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A sustainable economy is important to the well-being of Bedminster Township and the wider economic region of which it is a part. It is the intent of the Planning Board to examine this issue and to prepare an economic development plan for future adoption, which will set forth strategies for strengthening the local economy and/or the municipal contribution toward the wider economy to which it belongs.

The goals and objectives of the Sustainable Economic Development Plan in addition include, but are not limited to:

1. To develop appropriate strategies to improve the local tax base and create jobs and economic opportunities, while remaining consistent with the other policies and objectives of the Highlands Element.
2. To ensure opportunities for home office, entrepreneurial and other small business activities, as appropriate.
3. To identify appropriate opportunities for development and/or redevelopment, including possible brownfield redevelopment that may further the goal of economic sustainability.
4. To encourage development of small business incubator programs, particularly those focused on advancing specific goals and objectives of the Highlands Element, such as initiatives in compact design, native species landscaping, Low Impact Development, energy efficiency and resource conservation.
5. To coordinate with the Highlands Council and other applicable state and/or county agencies to develop or participate in eco-, agri-, and/or heritage tourism programs, as appropriate.

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**HISTORIC PRESERVATION PLAN**

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Bedminster's adopted Historic Preservation Plan Element (HPE) sets forth the applicable goals and objectives for historic preservation in the Township, the criteria for historic designation, and the specific properties of historic interest in the community. Bedminster Township contains an impressive display of historic resources, which provides modern day evidence of a past way of life in north central New Jersey. Bedminster's Historic Preservation Plan Element identifies the historic sites within Bedminster Township and indicates their significance to the history, architecture, archeology, and culture of New Jersey.

The Township of Bedminster, located in the Somerset Hills of New Jersey, was chartered in 1749 by King George II and settled by Dutch, German, and Scotch-Irish immigrants. The lands of the Township are the greater part of the Peapack Patent, the original grant from the Lord Proprietors of East New Jersey to George Willocks and John Johnstone, two 18th century land speculators. The HPE follows Bedminster's storied past through the Revolutionary War encampment at Pluckemin, where Henry Knox trained the Pluckemin Artillery to fight the British, and into the 19<sup>th</sup> century when the railroad brought influential businessmen to the area and the 20<sup>th</sup> century, when automobile travel and interstate highways changed the landscape of central Jersey forever, although less so in Bedminster than almost anywhere that the interstate network has touched.

Recognizing that preserving Bedminster's rich historical heritage would involve managing changes to historic sites and districts, the Bedminster Land Management Ordinance was amended to provide the Planning Board and Historic Preservation Commission with opportunities to review the plans of landowners seeking certificates of appropriateness for changes to historic buildings. The villages that emerged at the major crossroads continue to be historically and culturally significant places. Pottersville, one of the four (4) historic districts designated in the Historic Preservation Plan Element and zoned as historic districts, is located in the Preservation Area.

This Plan supplements the existing Element, as applicable to the Highlands Preservation Area, to include the additional information and goals and objectives listed below.

**A. HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES**

The Township survey of historic sites appears as a map within the ERI, which is duplicated herein at Exhibit HH, "Historic, Cultural, and Archaeological Resource Inventory." The specific list of affected properties is provided below. The list comes directly from the Highlands Region Historic, Cultural, and Archaeological Resources Inventory (as of June 2011), which includes: 1) all properties listed on the State or National Register of Historic Places; 2) all properties which have been deemed eligible for listing on the State or National

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Register; and 3) all properties for which a formal State Historic Preservation Office (SHPO) opinion has been issued.

This Plan recognizes that the historic, cultural and archaeological resources of the Preservation Area form an essential component of its character and aesthetic quality. They preserve a part of the history of the Township Preservation Area and provide a link to its past. They remind us of significant people, places and events in our history and they provide vital information about what life was like in this community in earlier times.

*[Municipalities that anticipate adoption of historic preservation ordinances should consider inclusion of the language hereunder, denoted as "Alternative 1." Adoption of such ordinances is encouraged but not required. For those that do not intend to adopt historic preservation ordinances, please use the language provided in the section denoted "Alternative 2," which follows below.]*

*[Alternative 1:]* Accordingly, the below-listed goals and objectives shall apply to the future preservation of Historic and Cultural and Archeological resources in the Preservation Area.

1. To ensure that human development does not adversely affect the character or value of resources which are listed on the Historic and Cultural Resource Inventory to the maximum extent practicable.
2. To require that all development and redevelopment applications include submission of a report identifying potential historic, cultural and archaeological resources on the subject property or immediately adjacent properties.
3. To ensure that historic, cultural and archaeological resources identified through the development review process are: a) evaluated for inclusion on the survey of historic sites within this document; and b) submitted to the Highlands Council for possible inclusion in the Highlands Region Historic and Cultural Resources Inventory.
4. To ensure that the impact of proposed human development on the historic and cultural resources of the Preservation Area is addressed during development review.
5. To at minimum utilize State and National Register criteria, as applied at the local level, in considering sites and districts for historic designation.
6. To use the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties as guidance for historic and cultural preservation review and to seek and encourage preservation and adaptive re-use of historic structures.

*[Alternative 2:]* Accordingly, the below-listed goals and objectives shall apply to the Historic, Cultural, and Archaeological resources in the Highlands Area.

1. To examine the character and qualities of the community's Historic, Cultural, and Archaeological resources to gain further understanding of the extent of their

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contributions to the aesthetics, character, economic vitality, and sense of place of the community.

2. To consider the educational value of the community's Historic, Cultural, and Archaeological resources and encourage opportunities to celebrate and share information about the community's heritage.
3. To consider the character and qualities of the community's Historic, Cultural, and Archaeological resources in any development application that may affect them, whether directly or indirectly.
4. To examine the potential for development and adoption of regulatory provisions that are protective of the Historic, Cultural, and Archaeological resources of the community.
5. To consider the character and qualities of the community's Historic, Cultural, and Archaeological resources in development of the Land Use Plan, Community Facilities Plan, Circulation Plan, and all other aspects of the Highlands Element.

The following Preservation Area sites, districts and properties are listed in the Highlands Historic and Cultural Resources Inventory:

- a) Pottersville Village Historic District (ID#1633), County Route 512, Hill Street, and McCann Mill Road, Black River and Hacklebarney roads.
- b) A. Herzog Farmstead (ID#2459), 190 Pottersville Road.

## **B. SCENIC RESOURCES**

Section 1205 of Bedminster's Master Plan "SCENIC CORRIDORS AND RESOURCES" notes that "The identity of a place, for both residents and passersby, is inextricably linked to the views experienced from roadways and rivers. Since the typical mode of travel is by motor vehicle, roadside views shape our perception of a place to the greatest extent."

Scenic qualities also affect the perception of an area's "quality of life" and Bedminster's landforms and landscape make Bedminster a particularly attractive place. The issue of scenic resource protection, highlighted in the SDRP and in Somerset County's Scenic Corridor and Roadway Study, suggests rural design concepts as a preferred alternative to suburban sprawl. Strategies are recommended to minimize visual intrusions into the rural fabric of the countryside.

The Township baseline survey of scenic resources appears at Exhibit II, "Baseline Scenic Resources Inventory," duplicated from the ERI. The specific list of affected properties is provided below. The list comes directly from the Highlands Council as a first-step inventory of Scenic Resources having potential for local and/or regional designation. It includes

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national historic landmarks and federal, state and county publicly-owned parks, forests, and recreation areas.

The Highlands Council also adopted a Procedure for Nomination, Evaluation and Inventory of Highlands Regionally Significant Scenic Resources which establishes the process for formal nomination and inclusion of additional scenic resources in the Highlands Scenic Resource Inventory. The process requires the adoption and implementation of management plans to ensure that the scenic resources are protected and maintained.

This Plan recognizes the value and importance of scenic resources in preserving the aesthetic qualities of the Township Preservation Area. Accordingly, the below-listed goals and objectives shall apply to the future management of Scenic Resources in the Preservation Area.

1. To ensure that human development does not adversely affect the character or value of resources which are listed on the Highlands Scenic Resources Inventory.
2. To require that the impact of proposed human development on the scenic resources of the Preservation Area be addressed during local development review.
3. To utilize Highlands Scenic Resource designation standards, as applied at the local level, in considering scenic resources for designation.
4. To require that all development applications include identification of any scenic resources in the Highlands Region that are listed on the Highlands Scenic Resources Inventory and may be affected by the proposed development.
5. To develop regulatory standards to protect Scenic Resources from negative impacts due to development.
6. To develop minimum standards for the protection and enhancement of the Scenic Resources listed in the Highlands Scenic Resources Inventory.

Currently, just one Preservation Area location is listed in the Highlands Scenic Resources Inventory:

- a) A portion of Hacklebarney State Park; lands located north of Pottersville.

Additionally, Bedminster's Master Plan identifies a network of scenic corridors and rivers that extend around and throughout all parts of Bedminster.

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**RELATIONSHIP OF MASTER PLAN TO STATE/REGIONAL/LOCAL PLANS**

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By adoption of this Preservation Area Element, the Township Master Plan is brought into alignment with the Highlands Regional Master Plan (RMP). The Preservation Area Element incorporates all of the policies, goals, and objectives of the Highlands RMP that are relevant to the use and development of land in the Township Preservation Area. The Preservation Area Element calls for the development and adoption of various land use regulations and specific environmental management plans, which together will effectuate its vision and in so doing, advance the intents and purposes of the Highlands RMP.

The Highlands Act provides that any portion of a municipality located in the Preservation Area is exempt from the State Planning Commission (SPC) Plan Endorsement process.

By aligning the municipal Master Plan with the Highlands RMP, its consistency with the State Development and Redevelopment Plan (SDRP) is achieved. A map depicting the municipality's SDRP Planning Areas appears at Exhibit JJ. The Highlands Element furthers SDRP policies, goals, and objectives in many ways, not least of which are the following:

1. Seeking to protect, preserve, restore, and enhance the natural resources of the Preservation Area;
2. Encouraging the use of smart growth principles in locations of the Area deemed appropriate for development and/or redevelopment;
3. Protecting historic, cultural and aesthetic resources;
4. Encouraging a sustainable local economy;
5. Protecting agricultural resources, supporting local agricultural businesses, and promoting sustainable agricultural practices;
6. Preserving open space and providing for an array of active and passive recreational opportunities; and
7. Ensuring a viable and well-integrated transportation network that incorporates and encourages multi-modal options and efficiency of land use.

The Highlands Element modifies the relationship of the Township development plan to those of the county and contiguous municipalities insofar as it affects the intents for land use and development within the Township Preservation Area. Given that the Preservation Area Element introduces a substantial number of new constraints to development based on environmental resources and carrying capacities, it is anticipated that the future impacts from development of the Preservation Area will be reduced from previous trends. A complete understanding will not exist however, until further analysis is undertaken to determine the full impacts of conformance with the RMP on the municipal Land Use Plan. An important component of that analysis will be in regard to watershed-based planning. To the extent that the Township shares a HUC14 subwatershed with other municipal and/or

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county entities, a cooperative planning effort involving all parties will be vital to ensuring sound use and management of the available water resources. It will also be important to understand which, if any, of the adjoining municipalities and/or the county conform to the Highlands RMP and for what portions of their land areas. The land uses, the permitted densities and intensities of development, and the locations and extent of anticipated growth in neighboring Highlands communities that are also pursuing conformance with the RMP are all subject to change. Until information is available concerning such decision-making, a comparison between these master plans will not be meaningful. Further discussion of these aspects will therefore be provided in the next amendment to the Master Plan.

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**ACRONYMS**

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CADB	County Agriculture Development Board
ERI	Environmental Resource Inventory
EDU	Equivalent Dwelling Unit
FAR	Floor Area Ratio
GIS	Geographic Information Systems
HAD	Highlands Applicability Determination
HDC	Highlands Development Credit
HPAA	Highlands Preservation Area Approval
HUC	Hydrologic Unit Code
LID	Low Impact Development
MLUL	Municipal Land Use Law (of the State of New Jersey)
NAICS	North American Industrial Classification System
NJDA	New Jersey Department of Agriculture
NJAC	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NJDOT	New Jersey Department of Transportation
NJSA	New Jersey Statutes Annotated
NPS	Nonpoint Source
NRCS	Natural Resources Conservation Service
PCS	Potential Contaminant Source
PGWRA	Prime Ground Water Recharge Area
RMP	Regional Master Plan (of the New Jersey Highlands Water Protection and Planning Council)
ROSI	Recreation and Open Space Inventory
SADC	State Agriculture Development Committee
SCD	Soil Conservation District
SDRP	State Development and Redevelopment Plan
SHPO	State Historic Preservation Office
SPC	State Planning Commission
TDR	Transfer of Development Rights
TMDL	Total Maximum Daily Load
TSP	Technical Service Provider
USDA	United States Department of Agriculture
WHPA	Wellhead Protection Area



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**EXHIBITS**

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- A.** Bedminster Township Highlands Preservation Area
- B.** 2002 Land Use/Land Cover
- C.** Highlands Contaminated Site Inventory
- D.** *[Reserved]*
- E.** Forest Resource Area
- F.** Total Forest Area
- G.** Forest Subwatersheds
- H.** Highlands Open Waters
- I.** Highlands Riparian Areas
- J.** Watershed Values
- K.** Riparian Integrity
- L.** Steep Slope Protection Areas
- M.** Critical Wildlife Habitat
- N.** *[Reserved]*
- O.** *[Reserved]*
- P.** Carbonate Rock Areas
- Q.** *[Reserved]*
- R.** Net Water Availability
- S.** Prime Ground Water Recharge Areas
- T.** HUC 14s on NJDEP Impaired Waters List
- U.** *[Reserved]*
- V.** *[Reserved]*
- W.** *[Reserved]*
- X.** *[Reserved]*
- Y.** Highlands Roadway Network
- Z.** Highlands Transit Network
- AA.** Preserved Lands
- BB.** Highlands Conservation Priority Areas
- CC.** *[Reserved]*
- DD.** Preserved Farms, SADC Easements, All Agricultural Uses
- EE.** Important Farmland Soils
- FF.** Agricultural Resource Area
- GG.** Highlands Agricultural Priority Area
- HH.** Historic, Cultural, and Archaeological Resource Inventory
- II.** Baseline Scenic Resources Inventory
- JJ.** SDRP Planning Areas

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**APPENDIX A MAJOR POTENTIAL CONTAMINANT SOURCES**

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Land uses and activities determined by the Highlands Council (based on New Jersey Safe Drinking Water Act regulations and NJDEP regulations) to be Major Potential Contaminant Sources include the following:

1. Permanent storage or disposal of hazardous wastes, industrial or municipal sludge or radioactive materials, including solid waste landfills.
2. Collection and transfer facilities for hazardous wastes, solid wastes that contain hazardous materials, and radioactive materials.
3. Any use or activity requiring the underground storage of a hazardous substance or waste in excess of an aggregate total of 50 gallons.
4. Underground fuel and chemical storage and oil tanks regulated by NJDEP under provisions of the Underground Storage of Hazardous Substances Act (N.J.S.A. 58:10A-21 et seq.).
5. Above-ground storage facility for a hazardous substance or waste with a cumulative capacity greater than 2,000 gallons.
6. Any industrial treatment facility lagoon.
7. Any industrial facility with a North American Industry Classification System (NAICS) Code number included under the New Jersey Safe Drinking Water Act Regulations at N.J.A.C 7:10A-1.14, Table II(N)A, with a toxicity number of II or greater. (See Appendix C.)
8. Automotive service center (repair & maintenance).
9. Landfill.
10. Dry cleaning processing facility.
11. Road salt storage facility.
12. Cemetery.
13. Highway maintenance yard.
14. Truck, bus, locomotive maintenance yard.
15. Site for storage and maintenance of heavy construction equipment and materials.

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16. Site for storage and maintenance of equipment and materials for landscaping, excluding household storage and maintenance of such equipment.
17. Livestock operation containing 300 or more Animal Units (AU) [1 AU= 1000 pounds of live animal weight] as defined by the NJ Department of Agriculture in its Criteria and Standards for Animal Waste Management, at NJAC 2:91.
18. Quarrying and/or mining facility.
19. Asphalt and/or concrete manufacturing facility.
20. Junkyard/auto recycling and scrap metal facility.
21. Residential or agricultural motor fuel in NJDEP exempted underground storage tanks (i.e., under 1,000 gallons).

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**APPENDIX B MINOR POTENTIAL CONTAMINANT SOURCES**

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Land uses and activities determined by the Highlands Council (based on New Jersey Safe Drinking Water Act regulations and NJDEP regulations) to be Minor Potential Contaminant Sources include the following:

1. Underground storage of hazardous substance or waste of less than 50 gallons.
2. Underground heating oil storage tank with a capacity of less than 2,000 gallons.
3. Sewage treatment facility regulated by a NJPDES permit granted under NJAC 7:14A.
4. Sanitary sewer system, including sewer line, manhole, or pump station.
5. Industrial waste line.
6. Septic leaching field.
7. Facility requiring a ground water discharge permit issued by the NJDEP pursuant to N.J.A.C 7:14A et seq.
8. Stormwater retention-recharge basin.
9. Dry well.
10. Storm water conveyance line.
11. Waste oil collection, storage and recycling facility.
12. Agricultural chemical bulk storage and mixing or loading facility including crop dusting facilities.
13. Above-ground storage of hazardous substance or waste in quantities of less than 2,000 gallons.
14. Livestock operation containing 8 or more Animal Units (AU) [1 AU= 1000 pounds of live animal weight] or those receiving 142 or more tons of animal waste per year as defined by the NJ Department of Agriculture pursuant to its Criteria and Standards for Animal Waste Management, at NJAC 2:91.
15. Other PCS's of similar nature that are not listed in (1) through (14) above or in the definition of Major PCS.

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**APPENDIX C MAJOR POTENTIAL POLLUTANT SOURCES**

**Facilities with Toxicity Ratings of II or Greater  
Adapted from N.J.A.C. 7:10A-1.14(c)4, Table II(N)A**

2007 NAICS Code	2007 NAICS Definition	Toxicity Rating
321219	Reconstituted Wood Product Manufacturing	II
323110	Newspaper Publishers	
323111	Internet Publishing and Broadcasting	
323112	Periodical Publishers	
323113	Book Publishers	
323114	Music Publishers	
323115	Book Printing	
323116	Directory and Mailing List Publishers	
323117	All Other Publishers	
323118	Commercial Lithographic Printing	
323119	Quick Printing	
323121	Commercial Gravure Printing	
511110	Commercial Flexographic Printing	
511120	Commercial Screen Printing	
511130	Digital Printing	
511140	Other Commercial Printing	
511191	Manifold Business Form Printing	
511199	Manifold Business Form Printing	
512230	Blankbook, Loose-leaf Binder, and Device Manufacturing	
516110	Tradebinding and Related Work	
325120	Industrial Gas Manufacturing	
812320	Drycleaning and Laundry Services (except Coin-Operated)	
812310	Coin-Operated Laundries and Drycleaners	
812320	Drycleaning and Laundry Services (except Coin-Operated)	
561740	Carpet and Upholstery Cleaning Services	
811192	Car Washes	
21211	Bituminous Coal and Lignite Surface Mining	
21212	Bituminous Coal Underground Mining	
21213	Anthracite Mining	
325191	Soap and Other Detergent Manufacturing	
325510	Polish and Other Sanitation Good Manufacturing	
325611	Surface Active Agent Manufacturing	
325612	Toilet Preparation Manufacturing	
325620	Gum and Wood Chemical Manufacturing	
331112	Electrometallurgical Ferroalloy Product Manufacturing	
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	
334310	Audio and Video Equipment Manufacturing	
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	
334419	Other Electronic Component Manufacturing	
488490	Other Support Activities for Road Transportation	
713930	Marinas	
483211	Inland Water Freight Transportation	
488310	Port and Harbor Operations	

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2007 NAICS Code	2007 NAICS Definition	Toxicity Rating
488330	Navigational Services to Shipping	
488390	Other Support Activities for Water Transportation	
532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	
541990	All Other Professional, Scientific, and Technical Services	
115112	Soil Preparation, Planting, and Cultivating	IV
2123	Non Mineral Mining and Quarrying	
325131	Inorganic Dye and Pigment Manufacturing,	
325182	Carbon Black Manufacturing	
211112	Natural Gas Liquid Extraction	
325613	Paint and Coating Manufacturing	
325182	Carbon Black Manufacturing	
311942	Spice and Extract Manufacturing	
325910	Printing Ink Manufacturing	
325920	Explosives Manufacturing	
316211	Rubber and Plastics Footwear Manufacturing	
326211	Tire Manufacturing (except Retreading)	
326220	Rubber and Plastics Hoses and Belting Manufacturing	
339991	Gasket, Packing, and Sealing Device Manufacturing	
326291	Rubber Product Manufacturing for Mechanical Use	
313320	Fabric Coating Mills	
314911	Textile Bag Mills	
315299	All Other Cut and Sew Apparel Manufacturing	
315999	Other Apparel Accessories and Other Apparel Manufacturing	
326192	Resilient Floor Covering Manufacturing	
326299	All Other Rubber Product Manufacturing	
339113	Surgical and Appliance and Supplies Manufacturing	
339920	Sporting and Athletic Goods Manufacturing	
339932	Game, Toy, and Children's Vehicle Manufacturing	
316110	Leather and Hide Tanning and Finishing	
332995	Other Ordnance and Accessories Manufacturing	
335911	Storage Battery Manufacturing	
335912	Primary Battery Manufacturing	
336611	Ship Building and Repairing	
488390	Other Support Activities for Water Transportation	
221111	Hydroelectric Power Generation	
221112	Fossil Fuel Electric Power Generation	
221113	Nuclear Electric Power Generation	
221119	Other Electric Power Generation	
221121	Electric Bulk Power Transmission and Control	
221122	Electric Power Distribution	
221210	Natural Gas Distribution	
221310	Water Supply and Irrigation Systems	
562212	Solid Waste Landfill	
424910	Farm Supplies Merchant Wholesalers	
444220	Nurseries, Garden Centers, and Farm Supply Stores	
812331	Linen Supply	
812332	Industrial Launderers	
541710	Research and Development in Biotechnology	
541720	Research and Development in the Social Sciences and Humanities	

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2007 NAICS Code	2007 NAICS Definition	Toxicity Rating
2122	Metal Ore, Mining	V
313	Textile Mills	
336	Transportation Equipment Manufacturing	
337	Furniture and Related Product Manufacturing	
322	Paper Mills	
325181	Alkalies and Chlorine Manufacturing	
325211	Plastics Material and Resin Manufacturing	
325212	Synthetic Rubber Manufacturing	
325221	Cellulosic Organic Fiber Manufacturing	
325222	Noncellulosic Organic Fiber Manufacturing	
325411	Medicinal and Botanical Manufacturing	
325412	Pharmaceutical Preparation Manufacturing	
325413	In-Vitro Diagnostic Substance Manufacturing	
325414	Biological Product (except Diagnostic) Manufacturing	
325520	Adhesive Manufacturing	
3241	Petroleum and Coal Products Manufacturing	
3315	Foundries	
331	Secondary Smelting	
332	Fabricated Metal Product Manufacturing	
331	Alumina, Aluminum, Nonferrous Metal (except Aluminum) Production and Processing	
	Non-Ferrous Foundries	
332811	Metal Heat Treating	
332618	Other Fabricated Wire Product Manufacturing	
332813	Electroplating, Plating, Polishing, Anodizing and Coloring	
332112	Nonferrous Forging	
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	
332992	Small Arms Ammunition Manufacturing, Ammunition (except Small Arms) Manufacturing, Small Arms Manufacturing	
332	Fabricated Metal Product Manufacturing	
333	Machinery Manufacturing	
31-33	Manufacturing (75 Specific Industries Defined)	
335991	Carbon and Graphite Product Manufacturing	
334411	Electron Tube Manufacturing	
334412	Electron Tube Manufacturing	
332	Automotive, Trucks, Armored Vehicles and Aircraft Manufacturing	
3222	Converted Paper Product Manufacturing	
3259	All Other Chemical Product and Preparation Manufacturing	
3333	Commercial and Service Industry Machinery Manufacturing	
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	
334517	Irradiation Apparatus Manufacturing	
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing	
325992	Photographic Film, Paper, Plate, and Chemical Manufacturing	
3161	Leather and Hide Tanning and Finishing	
3119	Other Wood Product Manufacturing	
3231	Printing and Related Support Activities	
3259	Other Chemical Product and Preparation Manufacturing;	
3261	Plastics Product Manufacturing	
3322	Cutlery and Handtool Manufacturing	
3328	Coating, Engraving, Heat Treating, and Allied Activities;	

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2007 NAICS Code	2007 NAICS Definition	Toxicity Rating	
3329	Other Fabricated Metal Product Manufacturing		
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing		
3399	All Other Miscellaneous Manufacturing		
486,	Pipeline Transportation		
42352	Coal and Other Mineral and Ore Merchant Wholesalers		
424710	Petroleum Bulk Stations and Terminals		
454311	Heating Oil Dealers		
454312	Liquefied Petroleum Gas (Bottled Gas) Dealers		
115210	Support Activities for Animal Production		
238220	Plumbing, Heating, and Air-Conditioning Contractors		
444210	Outdoor Power Equipment Stores		
561790	Other Services to Buildings and Dwellings		
562991	Septic Tank and Related Services		
562998	All Other Miscellaneous Waste Management Services		
811219	Other Electronic and Precision Equipment Repair and Maintenance		
811411	Home and Garden Equipment Repair and Maintenance		
811412	Appliance Repair and Maintenance		
321114	Wood Preservation		VI
325110	Petrochemical Manufacturing		
325132	Synthetic Organic Dye and Pigment Manufacturing		
325192	Cyclic Crude and Intermediate Manufacturing		
332998	Enameled Iron and Metal Sanitary Ware Manufacturing		
325193	Ethyl Alcohol Manufacturing		
325199	All Other Basic Organic Chemical Manufacturing		
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing		
325320	Pesticide and Other Agricultural Chemical Manufacturing		
324199	All Other Petroleum and Coal Products Manufacturing		
331111	Iron and Steel Mills		
331221	Rolled Steel Shape Manufacturing		
331411	Primary Smelting and Refining of Copper		
331312	Primary Aluminum Production		
331419	Primary Smelting and Refining of Nonferrous Metal (except Copper and Aluminum)		
332998	Enameled Iron and Metal Sanitary Ware Manufacturing		
334413	Semiconductor and Related Device Manufacturing		
562211	Hazardous Waste Treatment and Disposal		
562213	Solid Waste Combustors and Incinerators		
562219	Other Nonhazardous Waste Treatment and Disposal		
562920	Materials Recovery Facilities		
423930	Recyclable Material Merchant Wholesalers		
424690	Other Chemical and Allied Products Merchant Wholesalers		
561710	Exterminating and Pest Control Services		
561720	Janitorial Services		
325998	Aerosol packaging, solvent recovery service-contract		
622110	General Medical and Surgical Hospitals		
622210	Psychiatric and Substance Abuse Hospitals		
621511	Medical Laboratories		