

### ***Introduction***

Bethlehem Township is located on the north central boundary of Hunterdon County and shares a northern border with Warren County. The Township includes approximately 13,184 acres or 20.6 square miles. Its neighboring municipalities include Bloomsbury Borough to the northwest, Holland and Alexandria Townships to the west, and a very small border with Pohatcong Township to the extreme west. The largest borders are shared with Franklin Township, Warren County, to the north and Union Township to the south. The Township shares a tiny border with Washington Township to the northeast, with Glen Gardner Borough and Hampton Borough to the east, and with Lebanon Township to the extreme southeast. The northern boundary of Bethlehem Township is the Musconetcong River. All of the neighboring municipalities are located within the Highlands Region.

Bethlehem is traversed east-west by Interstate 78/US Route 22 and State Route 173 which runs parallel to the Interstate. There are no interchanges for Interstate 78 located in Bethlehem Township, but two interchanges are located just outside of the Township limits: Pattenburg to the east and Bloomsbury to the west. Hunterdon County Route 579 which runs northwest / southeast forms part of the western border of the Township. The major north- south roads are County Route 643 ( West Portal- Asbury Road) and County Route 635 ( Charleston Road). In addition, Central Railroad of New Jersey and Lehigh Valley train tracks run through the Township.

In the Highlands Water Protection and Planning Act, the Legislature delineated specific boundaries within the Highlands Region as Preservation Areas and Planning Areas. The Township has 91% of its land area, 12,173 acres, within the Highlands Preservation Area and 9% of its land area, 1,137 acres, in the Planning Area. The fundamental distinction between the Preservation Area and Planning Area is that conformance with the Highlands Regional Master Plan (hereinafter the “RMP”) is required in the Preservation Area and is voluntary in the Planning Area. As such, the land use policies and regulations for 91% of Bethlehem Township’s land area must conform to the RMP.

Bethlehem Township has been active in land conservation programs including the New Jersey Farmland Preservation Program and the Green Acres program. In fact, most of the undeveloped land within the 1,137 acre Planning Area of the Township has been permanently preserved (see the Farmland and Open Space map at the end of this report). There are approximately 125 acres of Planning Area lands which remain available for development.

### ***Scope of the HIA Report***

This Initial Assessment Report provides recommended corrections to the Highlands data and maps regarding Bethlehem Township, a comprehensive consistency review of the goals, policies, and objectives of the RMP, and a budget for plan conformance.

### **Mapping**

The recommended data corrections are mapped on the Highlands Land Use Capability sub zones map and the Forest Integrity map. Several other maps have been created using or supplementing Highlands Council's data.

### **Highlands Goals Policies and Objectives**

A thorough review was completed which compared each of the RMP's goals, policies, and objectives with the municipal planning program and vision. A comprehensive checklist was created which allowed the municipality to identify critical issues, points of agreement, disagreement, and questions for clarification. Generally, the agree column indicates consistency with the municipal plans, goals and vision. In most cases the RMP is more comprehensive than the local plans and ordinances and, as such, consistency with the existing master plan was difficult to determine. The following section details the points which the Township has identified as critical to the Plan Conformance process.

### **Planning Area Plan Compliance**

The Council On Affordable Housing, COAH, third round deadline extension required the Governing Body to adopt a Resolution of Intent to Conform to the RMP. This requirement is non binding for the Planning Area lands. Therefore, the Mayor of Bethlehem appointed a subcommittee to continue to evaluate the merits of "opting - in" for the 125 acres of unrestricted, developable land in the Planning Area.

### **Budget**

Finally, a budget estimate for plan conformance is included which includes a Highlands Build Out, revised Master Plan, and revised Zoning Ordinance and revised submission checklists. Further clarification from the Highlands Council will be necessary to determine the budget estimate for completion and implementation of the various management plans outlined in the RMP.

### ***Highlands Zones***

The Highlands Preservation Area and Planning Area designated by the Legislature are further broken down by the RMP into three overlay zones and four sub-zones. These zones represent an overlay which builds upon municipal zoning by establishing standards and criteria, and are intended to provide a means to address a special public interest that underlying zoning may not otherwise take into consideration. Underlying zoning establishes the permitted land uses, while the overlay zone may detail more site specific requirements aimed at a certain goal, with the stricter standard applying. Each of these zones is applicable to both Planning and Preservation Area lands and is described by the RMP as the following:

- Protection Zone. Consists of high natural resource value lands that are important to maintaining water quality, water quantity and sensitive ecological resources and processes. Land acquisition is a high priority 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.
- Conservation Zone. Consists of areas with significant agricultural lands interspersed with associated woodlands and environmental features that should be preserved when possible. Non-agricultural development activities will be limited in area and intensity due to infrastructure constraints and resource protection goals.
- Existing Community Zone. Consists of areas with regionally significant concentrated development signifying existing communities. These areas tend to have limited environmental constraints due to previous development patterns, and may have existing infrastructure that support development and redevelopment provided that such development is compatible with the protection and character of the Highlands environment, at levels that are appropriate to maintain the character of established communities.

### ***Highlands Sub-Zones***

In addition to the three primary overlay zones, four sub-zones have been identified. The subzones represent areas of regionally significant environmental constraints where development should be further limited. The environmental constraints center on resource protection, consumptive and depletive water use, and water quality protection.

- Wildlife Management Sub-Zone. Consists of both areas managed by the United States Fish and Wildlife Service as part of the National Wildlife Refuge System and Wildlife Management Area System administered by the NJDEP Division of Fish and Wildlife's Bureau of Land Management. Activities in this sub zone include

compatible wildlife- dependant recreational uses such as hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

- Conservation Zone. – Environmental Protection Subzone. Consists of significant environmental features within the Conservation Zone that should be preserved and protected from non-agricultural development. Development activities will be limited and subject to stringent limitation on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands.
- Existing Community Zone – Environmentally Constrained Subzone. 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 stone” 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.
- Lake Community. Consists of patterns of community development that are within the Existing Community Zone within 1,000 feet of lakes. The Highlands Council focused on lakes that are 10 acres or greater and delineated lake management areas consisting of an area of up to 1,000 feet (depending on the protection focus) from the lake shoreline in order to protect water quality, resource features, shoreline development recreation, scenic quality and community character. A future management area is planned, encompassing the full lake watershed, for protection of the lake water quality. This zone has unique policies to prevent degradation of water quality and watershed pollution, harm to lake ecosystems, and promote natural aesthetic values within the Existing Community Zone. There are no Lake Community sub zoned lands in Bethlehem.

### ***Highlands Zones Breakdown***

The majority, 63%, of Bethlehem Township is located in the Protection Zone. Of the remaining lands, 31% are included in the Conservation Zone with 24% of these in the Environmentally Constrained Subzone. Small areas, totaling less than 1%, of the Existing Community Zone exist on the border of Bloomsbury and Hampton a fraction of which are environmentally constrained. The Wildlife Management Subzone totals 5% with all of this acreage located on preserved open space lands. The table below summarizes the acreage breakdown of Highlands’s zones in Bethlehem Township.

	Preservation Area (acres)	Planning Area (acres)	Total	%
Protection Zone	8,387.68	29.88	8,417.56	63 %
Conservation Zone	819.32	135.09	954.41	7 %
Environmentally Constrained Sub-zone	2,234.17	971.62	3205.79	24 %
Existing Community Zone	110.88	0	110.88	.8 %
Environmentally Constrained Sub-zone	5.4	0	5.4	.04%
Lake Community Sub-zone	0	0	0	0
Wildlife Management Sub-zone	615.47	.77	616.24	5 %

### *Maps*

The following series of maps illustrate Bethlehem's Initial Assessment Report.

- Aerial Map
- Highlands Areas
- Land Use Capability Map
- Riparian Areas
- Proposed Riparian Area Map
- Proposed Land Use Capability Map
- 2002 Land Use Land Cover
- Forest Resources
- Sub Watershed by HUC 14
- Forest Integrity by HUC 14
- Proposed Forest Integrity Map
- Net Water Availability by HUC 14
- Carbonate Rock, Well Head Protection, Prime Ground Water Recharge
- Water Resources, Critical Habitat
- Prime Ground Water Recharge Areas
- ADA Areas
- Preserved Farmland & Open Space
- Septic System yield by HUC 14

Aerial Photo: Beginning with the aerial photo, this serves as a basis for reviewing the other mapped features. Existing development, forested areas, and land use can be evaluated and compared with the other environmental attributes.

Highlands Areas Map: This map indicates the broadest level of Highlands Area jurisdiction: the Preservation Area and the Planning Area. Approximately 125 acres of developable land remains in the Planning Area.

Land Use Capability Map: A total of 92% of the land area of the Township is severely limited for development. This map indicates the overlay zones and sub-zones of the Highlands Areas. 8,417.56 acres of Bethlehem's land area, or 63% are within the Protection Zone. Another 24% of Bethlehem lands are within the Environmentally Constrained Conservation Zone. The Existing Community sub-zone measures 0.84%. The Wildlife Management Subzone encompasses 5% of the land area. Bethlehem has no lands within the Lake Community Sub-zone.

Proposed Land Use Capability Map: This map documents corrections and suggestions to the RMP. Detailed descriptions of the corrections and recommendations are included in the proposed mapping section.

Riparian Area Map: The Riparian Area map which details Highlands open waters and associated riparian areas. Bethlehem is situated on a ridge with the Musconetcong River forming part of the northern boundary of the Township. Several tributaries to the Spruce Run are located in the eastern section of the Township. All Highlands open water must include a 300 foot buffer.

Proposed Riparian Area Map:

Several areas within the 300 foot buffer area are indicated on the Land Use Capability Map, LUCM, as unconstrained. Bethlehem recommends the LUCM be amended to reflect the riparian constraints. In addition, there is a general riparian mapping error which indicates a connection between tributaries of the Musconetcong and the Spruce Run in the vicinity of Block 15 Lots 3,4, 4.01, 4.02. This area is labeled #1 and circled.

Land Use Land Cover Map: The 2002 Land Use Land Cover map created by the NJ Department of Environmental Protection, NJDEP, illustrates the types of land uses in the Township. This map provides an understanding of the existing land uses and the NJDEP environmental constraints, especially wetlands, which have led to the designations of the Highlands Land Use Capability Map.

Forest Resource Map: The majority of Bethlehem is in the Forest Resource Area including several large areas of core forest which the most valuable and intact forest resources in the Highlands. The Highlands Regional Master Plan has placed all of this area of the Township in the Protection Zone of the Preservation Area, which is the most restrictive designation under the RMP.

Forest Integrity Map: On a sub watershed basis, this map depicts relative importance of forest resource areas. This reliance upon water shed value to assign forest integrity value appears somewhat flawed. For example, the cleared agricultural fields in the northern portion of the Township are labeled medium integrity forest areas.

Sub Watersheds by HUC 14: This map indicates the sub watersheds which underlie Bethlehem.

Proposed Forest Integrity Map: This map details proposed revisions to the Forest Integrity Map. Using aerial photography, Highlands's forest resource mapping, and local knowledge, map revisions are proposed which better reflect the actual forest integrity in Bethlehem.

Net Water Availability by HUC 14: This map indicates the ground water resources of the Township. In general, Bethlehem has plentiful water resources. The few water deficit areas are located on the western border with Bloomsbury Borough and on the eastern borders with Clinton Township, Glen Gardener Borough, and Hampton Borough.

Carbonate Rock, Well Head Protection, Prime Ground Water Recharge: Bethlehem has a large Carbonate Rock area to the north and prime ground water recharge areas to the south and central portions of the Township. Even though Bethlehem has no public water systems, tier two and three well head protection areas extend from the public supply wells in Bloomsbury Borough and Glen Gardner Borough. Tier one, two and three wellhead protection areas extend from one of the Hampton Borough wells, and the water tower is actually located in Bethlehem Township. The residence located on Block 43.01 Lot 8, which contains the tower, is the only water customer from Hampton Borough Water Department and is the only use supplied with public water in Bethlehem Township.

Water Resources, Critical Habitat: This map indicates the rich wildlife habitat of Bethlehem Township. Over two dozen certified vernal pools are located in Bethlehem.

ADA Areas: This map indicates the Agricultural Development Areas designated by Hunterdon County for farmland Preservation purchases.

Preserved Farmland & Open Space: This map details the current inventory of preserved open space and farmland parcels in Bethlehem.

Septic System yield by HUC 14: This map illustrates the number of potential septic systems to be permitted in the Planning Area of Bethlehem Township. This yield is based on total yield for the HUC 14 sub watershed. Bethlehem has several questions regarding the allocation of septic systems to the land within Bethlehem Township.

Critical Wildlife Habitat Map: The Critical Wildlife Habitat map indicates where habitat exists for rare, threatened, or endangered species. A large contiguous area of critical habitat covers most of the Township. The parcels not included are generally existing developed residential, recreation lands, or cleared farmland.

### *RMP Mapping Revisions*

#### Proposed Highlands Subzones Map

Bethlehem Township has identified two primary map revisions for consideration by the Highlands Council. These are detailed on the proposed Highlands Sub Zone Map and specific targets are circled in blue. Clarification will be aided by comparison with the original Highlands Sub Zone Map and the other maps included in this report.

- 1. The C-I stream buffers have not been identified as an environmental constraint. The Sub zone should be amended to become Conservation Zone Environmentally Constrained. These areas are labeled as #1 on the proposed map.
- 2. This small residential area of Bethlehem Township adjacent to Bloomsbury Borough is different in character, zoning, infrastructure, and size from the adjacent existing community in Bloomsbury. This area is not an extension of a regional network of existing development and should be re-designated as Protection Zone to indicate consistency with the development patterns in Bethlehem. This area is labeled #2 and circled in blue.

The aerial photographs on the following pages contrast the residential area in Bethlehem with the existing community in Bloomsbury and provide supporting documentation for #2 on the proposed map revisions.



Bethlehem Township: Microsoft Oblique Angle Aerial Photograph, 2006



Microsoft Oblique Angle Aerial Photograph of Bloomsbury, 2006

- 3. This small residential area of Bethlehem Township adjacent to Hampton Borough is different in character, zoning, infrastructure, and size from the adjacent existing community in Hampton. This area is not an extension of a regional network of existing development and should be re-designated as Protection Zone to indicate consistency with the development patterns in Bethlehem. This area is labeled #3 and circled in blue.

The aerial photographs on the following pages contrast the residential area in Bethlehem with the existing community in Hampton Borough and provide supporting documentation for #3 on the proposed map revisions.

#### Proposed Forest Integrity Indicators by HUC 14 Map

- 1. The medium forest integrity area indicated to the south of the Musconetcong River is actually cleared agricultural land. Other areas labeled as high integrity forest which are either agricultural lands or developed areas should be removed the high integrity forested areas. These areas are circles in blue and labeled #1 on the proposed map.
- 2. The forested area generally located to the south and east of the Planning Area in Bethlehem is part of the larger contiguous forest area. Aerial photography, Highlands's resource mapping, and local knowledge indicate this area should be designated as high integrity forest. It is circled in red and labeled #2.

#### Proposed Riparian Area Map

- There is a general riparian mapping error which indicates a connection between tributaries of the Musconetcong and the Spruce Run in the vicinity of Block 15 Lots 3,4, 4.01, 4.02. There is no such connection existing. This area is labeled #1 and circled.



Bethlehem Township: Microsoft Oblique Angle Aerial photograph, 2006



Hampton Borough: Microsoft Oblique Angle Aerial Photograph, 2006

### ***Goals Policies and Objectives Comparison***

Bethlehem Township's planning program has been compared to the Highlands RMP goals, policies, and objectives to determine the level of consistency which exists and to identify the next steps toward plan conformance. A detailed checklist was developed in which each of the RMP goals, policies, and objectives were evaluated against the municipal planning program and vision. Specifically, RMP goals were categorized as:

- Critical Issues,
- Consistent with the Municipal Master Plan,
- Agree, generally with the RMP goal
- Disagree, generally with the RMP goal
- Needs Clarification

In general, the Highlands RMP is more detailed in its scope than the municipal planning program and as such is difficult to assign specific consistency with the municipal goals. In this instance, general agreement signifies intended consistency. The following paragraph summarizes the critical issues for each of the ten Highlands Regional Master Plan sections.

#### **i. Natural Resources**

##### *Forest Resources*

Most of the Township which has not been cleared for agriculture is heavily forested. Bethlehem Township's planning program acknowledges the value of forest resources and supports the resource protection goals of the RMP.

- Specifically, Bethlehem desires to implement more stringent clearing restrictions on lands including Highlands's exempt sites.
- A draft tree protection ordinance is pending.
- Concern exists regarding funding for mandatory community forestry plans and forest protection programs.
- As noted in the mapping section of this report, forest integrity mapping errors are of concern.

##### *Highlands Open Waters and Associated Riparian Areas*

Bethlehem Township supports the protection of water resources and riparian areas.

- Concern exists regarding riparian areas identified as including wildlife passage corridors. Will the Highlands Council map these areas?
- Is an individual landowner/developer responsible for mapping or documenting such corridors in an environmental impact statement?
- Existing agricultural disturbance within 300 foot buffers is of concern.
- Will farmers have to apply for permits to change uses or modify their production?

- Concern exists regarding conversion of agricultural uses to non agricultural uses. These conversions do not retroactively include previously farmed areas as developed. Will these lands have to be planted or restored as buffers?
- Concern exists regarding no net loss of functional value when disturbances are proposed. How is this assessed?
- Concern exists regarding the need for costly expert environmental review during local development approval process.
- Expansion of the 300 foot buffer may be required to protect threatened and endangered species. Will this requirement be based upon habitat or actual documented presence?
- Concern exists regarding maintenance of existing uses encroaching on the 300 foot buffer. Will maintenance be permitted?
- Limitation on impervious cover and clearing/disturbance of vegetation outside of the 300 foot buffer in high integrity and moderate integrity riparian areas is of concern. How far from buffer will regulation be expected? Who determines the extent of limitations?
- Provision for mitigation of disturbance of riparian areas through restoration in same HUC14. Is this similar to the wetlands creation strategy? Will Highlands Council issue permits or DEP?
- Will the municipality be responsible for identification of impaired riparian areas?

### *Steep Slopes*

Bethlehem Township has a pending Steep Slope and Ridgeline protection ordinance. The general master plan goal for protection of critical and sensitive environmental features is consistent with the Highlands RMP resource protection goals for steep slopes.

- The Township notes that funding for ordinance completion and master plan revisions will be necessary.

### *Critical Habitat*

Bethlehem Township has extensive areas of critical habitat including several certified vernal pools.

- Concern exists regarding the prohibition of new development, expansion, or increased intensity within critical habitat areas. Will routine maintenance activities be prohibited?
- Concern exists regarding funding for creation and implementation Habitat Conservation Management Plan and Program.
- Will Highlands Council provide model performance standards for each species of concern for incorporation into development regulations?
- Concern exists regarding the extent of off site limits which must be regulated for avoiding jeopardy to critical habitat.
- Do vernal pools buffer encroachment standards apply to agriculture?
- When proposed development encroaches on vernal pool 1,000 foot buffer, applicant must satisfy Highlands Council and NJDEP that impacts are

- infeasible to mitigate. Criterion must be included in Habitat Conservation Management Plan and Program. Will Highlands Council provide models?
- Concern exists regarding Highlands Council and NJDEP guidelines to expand the buffers for critical habitat and vernal pools. Will there be opportunity for local input?

### *Land Preservation and Stewardship*

Bethlehem Township has adopted a farmland preservation plan and an open space and greenway plan. The goals of this plan include protection of natural resources and farms in perpetuity, acquisition of parcels in an equitable manner, protection of large tracts of open land, establish a system of greenways, parks and trails, and incorporating parklands with open space areas.

- A question exists regarding the definition of Green Acres “diversions”.
- There could be equity issues in designating Special Environmental Zones where development is prohibited especially if funding for acquisition is limited. Concern exists regarding the waiver standard based upon Municipality “exhausting all means of preservation”.
- Land Stewardship Programs must be included with preservation programs. Will these programs have a model? Will the standards for stewardship exceed current SADC standards?
- Municipalities are required to provide information regarding lands subject to stewardship programs. NRCS and Farm Bill programs involvement is confidential.
- Concern exists that Forest Preservation Easement program may be outside the enabling legislation of the SADC/Green Acres.

### *Karst Topography*

Bethlehem Township commissioned a comprehensive evaluation of groundwater resources in 1999. The study prepared by M<sup>2</sup> Associates was based upon the following findings:

- Groundwater is the sole drinking water source for the Township, but there are limitations on placing wells within fractured bedrock aquifers typical of this area.
- NJDEP and USEPA have identified the protection of groundwater in the northwestern New Jersey as a critical measure.
- Parts of the Township provide recharge to two environmentally critical watersheds: NJ RWRPA 10 and RWRPA 8.
- Development in the Township can impact aquifers, recharge, well yields, and groundwater quality, particularly where these resources are already stressed.

The study determined that the Township is divided into two hydrogeologic zones: the Limestone and Dolomite Zone, ( the northern 20% of the Township) and the Igneous and Metamorphic Zone, ( the southern 80%). Well yields are estimated to be approximately two times greater in the Limestone and Dolomite Zone. The report

recommends a minimum recharge area of 1 acre per lot in the Limestone and Dolomite Zone and 1.75 acres per lot in the Igneous and Metamorphic Zone. In order for nitrate from septic systems to be adequately diluted, the study recommended 4.9 acres per lot in the Limestone and Dolomite Zone and 8.6 acres per lot in the Igneous and Metamorphic Zone. The Township zoning density requirements are 6 acres per lot in the AR Zone located in the northern Limestone and Dolomite Zone and 5 acres with a cluster option in the MR Zone located in the southern section within the Igneous and Metamorphic Zone. In addition, the Township has a Carbonate Area District Overlay. This district consists of the Carbonate Area District which is underlain by limestone or carbonate rock and a Carbonate Drainage Area which includes all the lands which drain surface water into the carbonate rock district. Detailed submission requirements and performance standards regulate development in these areas.

The Highlands Land Use Capability mapping indicates the use of similar data to the local study with respect to groundwater resources. The Carbonate Area District corresponds to Environmentally Constrained subzone of the Conservation Zone and the Carbonate Drainage Area lies within the Protection Sub Zone of the Preservation Area.

There has been some confusion and uncertainty regarding ultimate septic density in the Planning Area. It is difficult to translate HUC 14 septic yield data into site specific density standards. The Township would appreciate clarification.

## **2. Water Resource and Water Utilities**

### *Water Resources Availability*

Bethlehem Township supports the Highlands goals for water resource protection. Several Township Master Plan goals focus on conservation of natural resources especially concerning regional potable water supply. The Master Plan urges extreme caution when developing sites which rely on septic systems where rapidly permeable soils overlay fractured bedrock in order to protect the quality of the water supply.

- Some confusion and concern exists regarding the RMP objectives for establishing Ground Water Capacity by HUC 14. The threshold methodology is highly technical and simplification and clarification is requested in order to assist the Township in developing standards and review criterion as well as the Water Use and Conservation Plan.
- Funding for the Water Use and Conservation Plan has been identified as a critical issue.
- Coordination should be facilitated between the Hunterdon County wastewater management planning process with Highlands water use planning and build out analysis. The deadline structure for the County programs may cause unnecessary duplication of effort and expense as these two plans proceed on parallel and competing tracts due to nitrate dilution standard variations.

### *Water Resources Quantity*

Bethlehem Township supports the protection of Prime Ground Water Recharge Areas. The Township's Environmental Resource Inventory, ERI, identifies prime ground water recharge areas.

- Plan Conformance requires Master Plan and Ordinance revisions to minimize disruption of ground water recharge by development. Technical assistance and funding for planning have been identified as critical issues.
- Prohibition on development within prime ground water recharge areas unless mitigated by providing equivalent of 125% of preconstruction recharge on site, within the same HUC14, or in an interrelated watershed has been identified as a critical issue. Will DEP or Highlands issue recharge mitigation permits? How will lands be identified as potential recharge areas. The Township requests technical assistance and funding for planning.
- Limitation of disruption of recharge to 15% of a site and the location of such disruption on areas of the site with lowest potential for recharge has been identified as a critical issue. Concern exists that expert hydrogeologic review may be necessary. Will Highlands Council provide technical assistance.

### *Water Quality*

Bethlehem Township supports the Highlands Goals of protecting, restoring, and enhancing the quality water resources.

- Technical assistance and funding for planning will be necessary in order for Master Plan and Ordinance revisions to require water quality protection measures.
- Concern exists regarding the objective requiring implementation of agricultural best management practices for water conservation, water re-use, pesticide application, animal waste management, environmental restoration, pollution assessment and prevention, and irrigation efficiency. Will the Highlands Council be developing best management practices. Will the municipality be required to monitor and enforce implementation?
- What will be required for a municipal water quality management program?
- Will Highlands Council provide technical guidance on water re-use for non-agricultural irrigation?
- Will developers be required to pre-treat stormwater in recharge basins? Are there guidelines for implementation?
- How will the scarce resource order for affordable housing relate to the objective to identify remaining available water supply system capacity to support regional growth?

### *Sustainable Development and Water Resources*

The Highlands RMP includes a variety of measures which ensure that future development is at densities necessary to remain within the carrying capacity of water resources. Prohibition on creation or extension of public utility infrastructure in the Preservation Area, the Protection Area, the Conservation Area and Environmentally

Constrained sub-zones of the Planning Area except where allowed through waivers or for clustered development. Bethlehem Township has no public utility infrastructure. The Master Plan urges extreme caution when developing sites which rely on septic systems where rapidly permeable soils overlay fractured bedrock in order to protect the quality of the water supply.

- The entirety of Bethlehem Township is within an agricultural resource area which requires all development be clustered. Clustered development in areas served by septic systems must protect the on site wells from contamination from agricultural practices. Concern exists regarding the required provision to minimize or reduce net pollution loading from the total cluster project including the agricultural lands. Technical assistance is required to determine total pollution loading. How will the agricultural operation be restricted by this requirement?
- Gray water systems are encouraged by the RMP. How does DEP regulate gray water disposal?
- Water resource management is required for all development within the Highlands Region, through local development review and Highlands Project Review. Will technical assistance be provided for ordinance revisions?
- The Highlands RMP details nitrate dilution modeling with target dilution rates of .72mg/L in the Protection Zone, 1.87mg/L in the Conservation Zone, 2mg/L in the Existing Community Zone, and 10mg/L where clustering occurs. These target rates are different from DEP required nitrate dilution rates. DEP tools which assist in determining lot yield and density are not applicable to Highlands sub watersheds and target dilution rates. Will Highlands Council provide a tool to assist in translating septic yield per sub watershed into lot yield and density?
- The Land Use Capability Septic System Yield Map indicates a wide range of permitted septic systems. What is the basis for the range? Does this number reflect total septic systems or future systems? Does the yield represent the total for the HUC 14 or for the specific area in the municipality?
- The RMP has a stated policy of establishing standards for the placement, design, monitoring, and maintenance of septic systems. Will these standards be different from existing standards for construction? Will placement of septic system be regulated by Highlands Council? Will the municipality be responsible for monitoring septic systems and maintenance?

### 3. Agriculture

Protection of the industry of agriculture and the farmland base is a central goal of the Bethlehem Township Master Plan. The Township has preserved many farms and has a dedicated tax of 5% for continued farmland preservation funding.

- Will a new comprehensive Farmland Preservation Plan be required?
- The entirety of Bethlehem is within an Agricultural Resource Area, ARA. The RMP has a policy statement to limit non-agricultural development within

ARA's. How are non-agricultural uses to be limited. Will agricultural zoning be required?

- Within ARA's clustered development is mandatory. Currently, Bethlehem does not permit clustering in the AG zone. The RMP requires 80% open space and encourages 90% in clustered development. The MR zone in Bethlehem permits clustering with a 70% open space set aside. The nitrate dilution target may not exceed 10mg/L in the clustered development. Can Highlands Council provide technical assistance to determine zoning based on these requirements?
- The current SADC deed restriction requires a farm conservation plan be developed for preserved lands. It does not require implementation of the plan. Will Highlands's conformance require a more stringent deed restriction?
- Will a farmer in an ARA have to go to Highlands for review and approval for family housing and farm labor housing even if the lands is not deed restricted for agriculture? What criterion will be applied in determining necessity to the viability of the farm?
- Will a municipality be required to develop regulations which limit agricultural structures? Will Highlands determine the necessity of all agricultural structures? Will permits be required?
- There are currently no incentives for limiting impervious coverage to 5% through the SADC. This would have to be accomplished by regulation. There is strong opposition to 5% impervious coverage limits from the farming community. This could be a disincentive to preservation if Highlands requires the limitation.
- Concern exists regarding the RMP objective to develop local and county regulations which are necessary to address agricultural practices which pose a direct threat to public health and safety. What are these practices? Pesticide purchase is regulated and application must be in conformance with label directions. Pesticide applicator must be licensed by the State of New Jersey.

#### **4. Historic, Cultural, Archeological, and Scenic Resources**

In 2005, the Township Environmental Commission, in conjunction with the West Portal Historical Society, initiated an effort to update the existing catalog and mapping of historic sites and prepare a Historic Plan Element. This effort is ongoing with volunteer participation.

- The RMP requires conforming municipalities to include a Historic, Cultural, and Scenic Resource Protection Element. Concern exists regarding funding of these elements.

#### **5. Transportation**

The Township Traffic Circulation Plan Element identifies the need to acquire additional right-of-way widths to bring roadways up to present standards. New connector roads are proposed in areas where there are large land locked parcels. The 2006 Comprehensive Environmental Review of the Master Plan indicates the addition

of new roads may no longer be necessary; however the Master Plan has not been revised. The Master Plan also recommends realignment of Rt. 635 to better access Rt. 31. This recommendation may not support the RMP goals for Transportation.

- Concern exists regarding funding for updated circulation plan element, pedestrian planning, and traffic studies.

## 6. Future Land Use

Bethlehem Township is predominantly in the Preservation Area of the Highlands Region where any future development is severely limited. Approximately 125 acres of developable land remain in the Planning Area most of which is within the Environmentally Constrained Sub Zone as well as the Agricultural Resource Area. Highlands's exempt development may represent the extent of future development within the municipality. The RMP outlines strategies for limiting the development of exempted parcels including exemption TDR programs and clustering techniques.

- Will the municipality be required to develop programs or regulations which limit the future development of exempted parcels?
- Will there be model ordinances and standards provided and funding for the development of standards for green building design. Bethlehem Township has identified the need for a Sustainable Development element of the Master Plan.
- Will there be funding and technical guidance for development of Land and Water Resource Planning and Management Programs required by the RMP.
- Redevelopment opportunities must be identified in the Master Plan. Will funding be provided? Once identified, will Highlands Council have jurisdiction over redevelopment plans?
- What is the Redevelopment and Infill Tool?
- Will a Community Facilities Plan Element be required?
- Will funding and models be provided to create the Low Impact Development and sustainable design standards?
- Will there be collaboration with COAH in designing methods of providing mandatory number of units of affordable housing in severely restricted areas of the Highlands like Bethlehem?

## 7. Landowner Equity

The Highlands Act requires the Highlands Council to establish a regional TDR program which is to include voluntary receiving areas. The development an implementation of this program is highly critical to maintaining landowner equity in Bethlehem due the severe restrictions on development covering virtually all of the municipality.

- Will municipalities have input on the assignment of Highlands Development Credit, HDC, allocation?
- Is there a funding source for Bank purchase of HDC's?

- Will the Credit Bank hold purchased HDC's and market them after private HDC's are exhausted?
- If municipal voluntary programs are insufficient to successfully implement a TDR program are there incentives which could be provided?
- Could Highlands Council lobby for an additional exemption to be added to the Highlands statute for small COAH projects?
- Waiver policy which gives the Highlands Council jurisdiction to grant waivers from the RMP and local ordinances for health and safety and redevelopment purposes should include a waiver for affordable housing.
- Municipalities are encouraged to develop programs to limit the development of exempt parcels. Will models and funding be provided?

## **8. Sustainable Economic Development**

Bethlehem Township has identified a critical concern regarding the severely reduced potential for economic development left in the municipality. The severe environmental restrictions which the Act and the Highlands Land Use Capability overlay zoning will in effect eliminate the non residential development potential of the municipality.

- Is there opportunity for negotiation of Highlands Area designations to mitigate the economic impact? In the alternative, are there other fiscal remedies available?
- Will funding be provided for Economic Plan Element?

## **9. Air Quality**

Bethlehem Township supports the goal of protecting air quality in the Highlands Region.

## **10. Local Participation**

Bethlehem Township has and will continue to hold advertised public meetings to encourage public participation in the Highlands conformance process.

***Cost Estimate***

Master Plan Revisions*	\$ 80,000.00
Zoning Ordinance Revisions	\$ 45,000.00
Affordable Housing Planning	\$ 25,000.00
Checklist Revisions	\$ 2,500.00
Initial Management Plan Preparation	\$20,000.00

The Highlands Council needs to provide clarification as to which Management Plans outlined by the RMP are mandatory and which will be required as part of Basic Plan Conformance. Further estimates may be needed upon this advise.

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