

NJ Department of Environmental Protection



Consistency Review and Comments on the Petition for Initial Plan Endorsement

**Submitted by the
Township of Holland, Hunterdon County**

August 21, 2007

Petition for Initial Plan Endorsement Submitted by the Township of Holland

NJ DEP Consistency Review and Comments

Introduction

Holland Township covers approximately 22.7 square miles in Hunterdon County, New Jersey. The Township is primarily an agricultural community, with significant areas of forest and intrusions of residential subdivisions and small cross-road hamlets. Holland is bordered by the Musconetcong River in the northwest, and the Delaware River in the west and south. Holland Township is also located wholly within the Highlands Region, with approximately 3 square miles located with the Highlands Preservation area. The State Plan Policy Map delineates the Township into the Rural/Environmentally Sensitive planning area, with an area of Rural planning area in the east, and a small area of Environmentally Sensitive planning area in the north. Holland Township is proposing as part of this petition to designate two small hamlet centers along County Route 519.

Completeness Review

Holland Township submitted a petition for Initial Plan Endorsement to the Office of Smart Growth in February 2007. As part of the process established in the State Planning Commission's Plan Endorsement Guidelines, the Department (DEP) reviewed the petition and supporting materials submitted by the Township for completeness and found the petition to be incomplete. In addition to the Commission's Plan Endorsement Guidelines, the Department has developed its own guidelines and review criteria (NJDEP Initial Plan Endorsement Program and Process Guide) to assist counties and municipalities in the Plan Endorsement process, and to assist in determining consistency with both the State Development and Redevelopment Plan and Department-related plans and programs.

The Department notified the Office of Smart Growth (OSG) that the petition did not include all of the required items and materials related to the Department's programs and regulations as prescribed in the Plan Endorsement Guidelines and the Department's Initial Plan Endorsement Program and Process Guide. Without this information the Department felt that it did not have a complete picture of current conditions and future activities in the County. The items the Department cited as missing were:

- **Natural Resource Inventory.** The petition did not include a Natural Resource Inventory, as required by the Plan Endorsement Guidelines. While the Township's various planning documents and Plan Endorsement petition include information and mapping of natural resources, the petition did not include a stand-alone Natural Resource Inventory.

The Office of Smart Growth initially deemed the Holland Township petition for Initial Plan Endorsement incomplete in a letter dated March 20, 2007. Holland Township has since addressed the issues noted by the Office of Smart Growth and DEP by submitting, among other documents, a draft NRI. As such, the Office of Smart Growth deemed the Holland Township Plan Endorsement Petition complete in a letter dated July 19, 2007, beginning a 45-day consistency review period.

Consistency Review

The Department's review of a petition for Plan Endorsement uses the State Planning Commission's Plan Endorsement Guidelines with emphasis on the items, tasks, policies and goals identified by the State Development and Redevelopment Plan that relate to the Department of Environmental Protection's mission to protect the State's environmental resources. The review of the materials submitted by Holland Township is intended to determine if the Township's planning portfolio and development goals and objectives are

generally consistent with the environmental and natural resource policies in the State Plan. As the Plan Endorsement Guidelines established by the Commission do not specify the content of the items needed to complete a regional Plan Endorsement petition, the Department developed standardized review criteria to assist counties and municipalities in preparing the documents, plans, and ordinances which are key to the Plan Endorsement process, and to assist local planners in determining their community's consistency with both the State Development and Redevelopment Plan and Department-related plans and programs. This document is entitled "NJDEP Initial Plan Endorsement Program and Process Guide", dated September 26, 2004. The Department's review comments are based upon the aforementioned documents and information submitted by Holland Township.

DEP CONSISTENCY DETERMINATION

The Department has reviewed the Holland Township submission and has determined that the goals and policies included in the Township's planning documents are generally sound and seek to protect the environmental resources of the Township and guide development into centers, consistent with the State Development and Redevelopment Plan. However, the Department has serious reservations about the ability of the proposed hamlet centers to accommodate the development potential that exists in the environs, should they be afforded the protections they deserve. Further, because the Department does not have access to the Township's ordinances and development regulations, we feel unable to determine if the goals and policies of the Township's planning documents are being implemented. The Department feels as though there are too many outstanding questions to make a determination of consistency at this time. *As such, the Department recommends that the Office of Smart Growth deem the Holland Township petition for Plan Endorsement inconsistent until such time that the Township is able to address the issues identified in this report.*

The following items are issues that require further clarification, correction, or modification before the Department can make a determination of consistency, or for the Township to gain consistency, with the State Development and Redevelopment Plan (in no particular order):

1. The Holland Township 2001 Master Plan identifies the southeast area of the Township as having reliable aquifers and groundwater supply, while at the same time having severe limitations for on-site septic facilities. Similarly, the areas in the north and west of the Township have less reliable aquifers with a lower safe sustainable yield. The southwest area of the Township has moderate to severe limitations for septic suitability, as do varying other areas throughout the north half of the township. *Please provide a narrative statement and the specific development regulations, zoning and other ordinances or protections adopted by the Township that address these issues.*
2. The Master Plan identifies streams, wetlands and flood plains. Wetlands are found in highest concentration along stream corridors and are often coincident with identified flood plains. Significant flood plains are identified along the Delaware River, Musconetcong River, Milford Creek and Hakiwokake Creek. The draft NRI also identifies flooding as a problem in the township. *Please provide a narrative statement and the specific development regulations, zoning and other ordinances or protections adopted by the Township that address these issues.*
3. Clustering, lot-averaging and non-contiguous residential clustering are innovative land use techniques identified in the Master Plan. However, the scope of these tools is not discussed in sufficient detail in the Master Plan, or is limited to discussions of specific resources. *Clustering, lot-averaging, and non-contiguous lot clustering are all options that should be considered township-wide in order to provide the necessary flexibility to protect any and all environmentally sensitive areas and/or agricultural areas. If the use of these tools is limited to certain areas or resources, the Township should provide justification for limiting the use of these tools. The Township should also provide the specific ordinances or regulations that allow or require these tools.*
4. The 2001 Master Plan and 2004 Housing Element identify a sewer service area that differs from that of the DEP adopted (2006) area. However, the SSA identified in these documents is consistent with the

Wastewater Management Plan recently submitted to the Department for review. The areas in the Township with the densest development, as well as the proposed centers, are identified as sewer service area. Both proposed centers are located in areas with severe limitations on septic suitability. *The Township should provide the zoning, ordinances or other development regulations that address wastewater treatment and water quality protection in the areas outside of the sewer service areas, particularly the areas of the Township identified as having limitations to septic suitability. In addition, the Master Plan and all supporting documents should be updated and re-examined for consistency upon adoption of the Wastewater Management Plan. DEP recommends this second step as an item in the PIA.*

5. The Master Plan identifies the following statement as its policy respecting water supply and sewage treatment capability:

"Where the site's underlying geologic formation supplies limited quantities of water or where soils preclude individual septic systems, the availability of public water and sewage treatment systems can overcome the natural limitations to development. On a regional basis, however, natural conditions are still the primary determinants of water supply and sewage treatment capability. Within a region, areas served by these utilities will become more intensively developed than areas which remain dependent upon site-specific resources, but the overall level of development in the region should reflect the resources still available within it."

While this guidance statement is generally consistent with the State Plan, the Township should, provide the zoning, ordinances or other development regulations that address wastewater treatment and water quality protection in the areas outside of the sewer service areas, particularly those areas of the Township identified as having limitations to water supply and septic suitability.

6. The Township has identified two (2) proposed Hamlet centers in its Plan Endorsement petition, while the 2001 Master Plan identifies a single, larger center. In addition, the Township has previously stated that the Northern Hamlet is meant to accept new growth primarily as redevelopment, while the Southern Hamlet is being designated to address a new development (Huntington Knolls). Both proposed hamlet centers are within a Category 1 stream buffer, contain wetlands, flood prone areas, and threatened and endangered species habitat, all limiting the potential for new development. The Land Use Element (L.U.P.-1) notes the intent of "concentration of future development within the boundaries of the Center and limiting development and its impacts within the Environs." *While the scope of the center proposed in the Master Plan may have been able to accommodate such a goal, the centers identified in the Plan Endorsement petition are unlikely to be able to accept or accommodate the growth potential from the environs. This is particularly the case when considering the extensive agricultural uses and environmentally sensitive areas that deserve protection and the areas with limited water and wastewater suitability that are inappropriate for intense development. The Department recommends a re-examination of the proposed hamlet centers be completed prior to endorsement. DEP recommends that Holland township update its planning documents to be consistent with the centers agreed upon as part of the Plan Endorsement process as an item in the PIA.*
7. The Master Plan notes that the Township contains a number of scenic resources that require protection. *Holland Township should identify and the specific development regulations, zoning and other ordinances, plans or other protections adopted by the Township that address these issues.*
8. The Master Plan Land Use Element section on Senior Citizen Housing identifies the PCD/PSV zone as the area most appropriate for senior housing. One of the reasons given is that the senior housing can be developed in coordination with a retail/commercial development. This site is also identified as proposed for affordable housing in the Housing Element. An amendment to the Wastewater Management Plan that addresses this project identifies the Huntington Knolls development as 116 senior housing units, a 50-bed assisting living home, an age-restricted group home, and 27,000 square feet of retail and office development. *Have all of the issues identified in that letter - water availability, type of units, number of units, lot size - been addressed? Is the Huntington Knolls*

development designed to be consistent with smart growth principles (walkable, transit-friendly, etc.)? Of the total units proposed for development, how many are proposed as affordable housing?

9. The Master Plan identifies seven (7) land use districts including Rural Residential (RR), Single-Family Residential (R-1), Multifamily Residential (MFR), Village Residential (VR), Commercial (COM), Planned Commercial Development/Planned Senior Village (PCD/PSV), and Limited Industrial Park (IND). The 2003 Land Use Plan map submitted as part of the Plan Endorsement petition, identifies the RR zone as Conservation/Agriculture (CA). *Were there any significant changes to the RR zone when it was renamed CA? Please also submit the zoning ordinance, or a narrative statement describing the details of the Township's zones.*
10. The Master Plan proposes that the overall gross density of development in the RR zone (now CA) be reduced to one dwelling unit per each ten (10) acres for conventional development, with higher densities for development forms that preserve open space and farmland. *Was this proposal ever adopted? It is assumed that "development forms that preserve open space and farmland" is referring to innovative land use techniques such as clustering, lot-averaging and non-contiguous residential clustering. The Township should specify which development forms it is referring to and what higher densities are allowed.*
11. The Master Plan also recommends the adoption of design standards to encourage development that is not visually intrusive. *Has the Township adopted such standards? Please provide them if so. If not, this step should be included as a PIA item.*
12. The Master Plan recommends establishing an open space buffer on the west side of the Village Center identified in the Plan. The Master Plan recommends that the Township target properties adjacent to Village Residential areas to maintain a "hard edge" that identifies the boundaries of the existing hamlets. *Were any actions ever taken to establish a buffer around the proposed centers? Were any actions ever taken to implement the recommendation to preserve properties adjacent to existing hamlets? Please identify the specific steps taken, and planned, to accomplish these recommendations.*
13. The Commercial zone appears to be consistent with the proposed Northern Hamlet center. It is assumed that much of the development in this zone will be redevelopment as it is fully developed and located almost entirely within a Category 1 stream buffer. *DEP recommends that Holland Township investigate making this zone mixed-use, allowing residential units above the existing commercial units, allowing more intense use without increasing the existing development footprint. This step should be examined concurrent with any re-examination of the center proposals.*
14. The Master Plan states that "the standards for residential density and development intensity established under the current Zoning Ordinance are no longer acceptable in light of the policies expressed by the State Planning Commission in the adopted State Development and Redevelopment Plan. They are proposed to be altered so that future development is concentrated within the proposed Village Center and limited within its Environs." *Was this proposal ever adopted? What densities have been established since the Master Plan was adopted in 2001? Again, while the scope of the center proposed in the Master Plan may have been able to accommodate such a goal, the centers as currently proposed are likely not large enough to accept or accommodate the growth potential from the environs. The Township should identify what steps have been taken to implement this proposal.*
15. Much of the Township is identified by the DEP Landscape Project mapping as habitat for State Threatened and Endangered Species. DEP notes that an updated version of the Landscape Project will be released in the near future. DEP review of the Holland Township Plan Endorsement petition has been based on this new, draft data. While not yet available to the public, it represents a more comprehensive identification of critical habitat. DEP will provide guidance on site-specific issues related to critical threatened and endangered species habitat until such time that the update to the Landscape Project is released. *The Township should identify the specific development regulations, zoning and other ordinances, plans or protections adopted by the Township that provide protection of*

critical habitat. DEP recommends that a Township-wide habitat conservation plan also be developed as part of the Conservation Plan Element of the Master Plan - a recommended item in the PIA.

16. The majority of the streams and rivers in the Township are either designated as or proposed to be designated Category 1. *The Township should identify the specific development regulations, zoning and other ordinances, plans or protections adopted by the Township that provide protection of these water bodies. DEP also recommends that a Township-wide stream corridor protection plan be developed as part of the Conservation Plan Element of the Master Plan - a recommended item in the PIA.*
17. There are three Natural Heritage Priority Sites and multiple vernal pools identified in the Township. *The Township should identify the specific development regulations, zoning and other ordinances, plans or protections adopted by the Township that provide protection to these sites, threatened plant species and ecological communities. These items should also be addressed in the recommended habitat conservation plan.*
18. The Master Plan does not include a Conservation Plan Element (although a place-holder exists). *DEP recommends the development of a Conservation Plan Element as an item in the PIA.*
19. The Master Plan was adopted in 2001, prior to adoption of the Highlands Water Protection and Planning Act in August, 2004. The Highlands Act identified the Township as wholly within the Highlands region, and the northern portion of the Township in the Highlands Preservation area. The portion of the Township within the Highlands Preservation area is required to be consistent with the Highlands Regional Master Plan, once adopted. *The Township must go through the Highlands Plan Conformance process. This step is recommended as an item in the PIA.*
20. Appendix A of the Master Plan and the draft NRI list the historic sites and districts in Holland Township. *The Township should identify the specific development regulations, zoning and other ordinances, plans or protections adopted by the Township that protect and promote beneficial reuse of these sites. In addition, DEP recommends that development of a Historic Preservation Plan be included as an item in the PIA.*
21. The Open Space Plan adopted in May, 2004, proposes five (5) actions to be taken (page 1, Executive Summary); identifies several items in a Needs Analysis, and; includes Action Plan strategies. *The Township should identify the specific proposals, strategies, needs and actions that were adopted, and provide examples of their successful implementation.*
22. The Consumers New Jersey Water Franchise Areas map provided in the 2004 Housing Element differs from that of the DEP 1998 Water Purveyor Area mapping. *The Department recognizes that its data may be incorrect or outdated and requests documentation from Consumers New Jersey that the Franchise Areas depicted in the Housing Element is correct.*
23. *Has Holland Township adopted, or recently proposed, a dedicated funding source for the preservation of open space (dedicated tax, bond indebtedness)?*
24. DEP data identifies multiple contaminated sites and groundwater contamination areas in Holland Township. *The Township's planning documents should identify brownfields, known contaminated sites and groundwater contamination areas and identify specific steps and actions that may be necessary to address these areas.*
25. The Plan identifies water infrastructure facilities such as elevated water storage tanks and water supply wells. There are also multiple Wellhead Protection Areas in Holland Township that delineate the horizontal extent of groundwater captured by a well pumping at a specific rate over a two-, five-, and twelve-year period of time for confined wells. *The Master Plan does not adequately identify or discuss wellhead protection areas or the importance of their protection. Further, the Plan does not identify Well H-1 operated by Consumers NJ, located at Willow Lane and the Musconetcong River*

(permit 24-01457) -the Township should recognize this well in its planning. The Township should also provide the zoning, ordinances or other development regulations in place to protect its potable water sources.

26. The 1996 State Water Supply Management Plan identifies several issues and recommended initiatives for the Water Supply Planning Area (9) that Holland Township is located in, including:

- Caution must be exercised to limit depletive water uses that can result in local stream flow reductions.
- The region's aquifers are susceptible to contamination.
- Wellhead protection and septic system management are important management initiatives.

Holland Township's drinking water is provided through four Community Water Systems, with the remainder being supplied by residential wells. Source water assessment reports for these systems may be found online at <http://www.state.nj.us/dep/swap/creport.htm>.

Holland Township should identify the specific development regulations, zoning and other ordinances, plans or protections adopted by the Township that limit depletive water use and protect the underlying aquifers from contamination. DEP recommends that a source water protection plan be developed and an implementing ordinance be adopted as items in the PIA. Further, DEP recommends that development of a septic system management plan and adoption of an implementing ordinance be adopted as items in the PIA.

Additional Issues and Recommendations

Proposed Centers

One of the most significant issues with Holland Township's Plan Endorsement petition and planning documents, are protections of the resources in the environs and the ability of any proposed center(s) to accommodate the development potential that exists in the environs. As noted earlier in this document, the two Hamlet centers proposed by the Township in the Plan Endorsement petition have two primary flaws. First, there are existing environmental constraints within the center boundaries that will significantly limit the amount of development that the centers can accommodate, including Category 1 stream buffers, wetlands, and flood prone areas. Second, and related to the first issue, is the size of the proposed centers. The proposed Hamlets have a road frontage along County Route 519 of approximately 5,300 feet and combine to a total area of approximately 126 acres. The Township has previously stated that the Northern Hamlet is meant to accept new growth primarily as redevelopment, as it appears to be built to the extent possible. The Southern Hamlet has a development proposal already - Huntington Knolls - that includes senior housing, office and retail. With the majority of the Township's environs identified as environmentally sensitive and/or agricultural uses, any center in the Township should be able to accommodate much of the development potential in those areas.

The Department's center-based recommendations are as follow:

- Perform a general buildout and capacity (potable water and wastewater) analysis to identify the development potential of the Township's environs. Consider protection of environmental resources and agricultural lands in this analysis.
- Consider re-delineating center(s) to accommodate growth potential from the environs. Re-delineation of the center(s) would also allow protections of the existing environmental constraints located in the proposed centers to be fully protected.
- Include existing, adjacent development, public facilities, and unconstrained lands in the re-delineation of the center(s) boundaries.

- Investigate the potential of a transfer of development rights program to relocate the development potential in the environs to the re-delineated center(s).
- Investigate the potential of matching the Sewer Service Area to the re-delineated center(s). This will likely require discussions with Milford Borough, and may necessitate an amendment to the Holland Township Wastewater Management Plan.
- Modify the zoning of the center(s) to allow mixed-use development such as residential units above commercial units.
- Allow and promote green design technologies and techniques that reduce water use and provide alternative stormwater management and wastewater treatment. These technologies will allow more intense development than would otherwise be permitted by lowering the impacts to environmental resources.
- Develop design guidelines for re/development consistent with smart growth principles.

Wastewater Management Plan & Plan Endorsement

In the Wastewater Management Planning (WMP) process, the Department has identified five (5) environmental resource protection resources to be adopted prior to approval of the proposed Wastewater Management Plan (at the time of this writing). Adoption of those same ordinances is required of the Township in this process as well. While adoption of these ordinances is important for the protection of the environmental resources in the Township, it will also provide consistency between the Plan Endorsement and Wastewater Management Planning processes. Adoption of the Wastewater Management Plan is a requirement for the Department's endorsement of Holland Township.

Issues to be addressed prior to Plan Endorsement

Requests for further information

Throughout this report, the Department has identified areas where further information is needed in order to make a determination of consistency. We assume that in most cases, this is because we do not have copies of Holland Township's ordinances. In the majority of cases, the Department has requested further information in the form of a narrative statement and specific examples of development regulations, zoning and other ordinances, plans or protections adopted by the Township that address the specific issue. Any of these issues that Holland Township is unable to adequately address may result in further items to be address prior to Plan Endorsement, or as items in the PIA. The Department notes that all items identified above, *except for item numbers 18 and 19*, include a request for further information.

Proposed centers

See issue discussed above in 'Additional Issues and Recommendations'.

Natural Resource Inventory

The Township has provided a draft Natural Resource Inventory - the NRI must be adopted by the Township prior to plan endorsement, if it hasn't been already.

Buildout Analysis

Holland Township should complete a full, Township-wide buildout analysis. The purpose of this analysis is to illustrate the development potential in the petitioning community based on the current master plan and implementation strategies. This analysis will help the municipality in judging the potential success of its

own plans, as well as assist in more specific analyses such as determining the development potential of the environs that may need to be accommodated by proposed centers.

The Department has completed a very basic buildout analysis of the R-5/CA zone based on the buildout requirements in the recent WQMP rule proposal. This methodology identifies the number of undeveloped acres by HUC11, and determines the number of residential units on a strict comparison of zoning density and total undeveloped land area.

- Based on existing, 5-acre zoning of the R-5/CA zone, there is the potential for 1,880 residential units.
- Based on zoning at 5.2ppm, consistent with the currently adopted Groundwater Quality Standards and Water Quality Management Planning rules, there is the potential for 3,502 residential units.
- Based on zoning at 2ppm, consistent with the proposed amendment to the Groundwater Quality Standards and Water Quality Management Planning rules, there is the potential for 1,331 residential units.

Environmental Justice

The Department has previously provided an Environmental Justice Inventory to Holland Township. The inventory provides information that can be used to indicate the extent to which low-income communities and communities of color might be located in close proximity to regulated sites or other negative environmental conditions. Based on this Inventory, the Township should provide a narrative identifying whether any environmental justice issues in the Township and identify specific steps being taken to address and/or mitigate those issues. Depending on the severity of the issues identified, an Environmental Justice plan may be required as an item in the PIA.

Plan Implementation Agreement Items

The Department of Environmental Protection will provide guidance and technical assistance to Holland Township in developing the items specified below.

Stormwater

The stormwater management rule at N.J.A.C. 7:8-4.2(c)8 requires municipalities to evaluate the extent to which the municipality's entire Master Plan, official map and development regulations (including the zoning ordinance) implement the principles of nonstructural stormwater management strategies. In order to promote the use of low impact development, Holland Township should identify the portions of the master plan that need to be amended to incorporate nonstructural strategies and include a time frame for incorporation of amendments to the master plan and/or land use and zoning ordinances.

Zoning Modifications

Based upon the results of the buildout analysis completed by the Department, provided above, the Department recommends modification of the R-5/CA zone to be consistent with the proposed Groundwater Quality Standards and Water Quality Management Planning rules (2ppm) for the two HUC11s in Holland Township. Even recognizing the basic nature of this analysis, the degree of difference in number of units is significant enough to warrant modification. The Department recommends, again, that the buildout analysis of the environs and the re-delineation of the proposed center(s) should be considered in tandem.

Conservation Plan Element of the Master Plan

The Master Plan does not include a Conservation Plan Element (although a place-holder exists). We recommend the development of a Conservation Plan Element as an item in the PIA. This Plan should

provide for the preservation, conservation and utilization of natural resources, including, to the extent appropriate:

- Energy
- Open space
- Water supplies and their drainages
- Forests
- Soil
- Marshes
- Wetlands
- Coastal resources including beaches and dunes
- Harbors
- Rivers, estuaries, lakes and other waters
- Fisheries
- Endangered or threatened species habitat
- Other site-specific critical resources

The conservation plan should explain how it relates to the conservation activities of adjacent towns and regional entities to better coordinate resource protection and land acquisition efforts.

The conservation plan should also include, but not be limited to, the following sections:

- **Stream Corridor Protection Plan**

This plan will establish a waterways map considering all waterways within or forming the boundary of a municipality and any state required setback, wetland transition area, riparian buffer, and the standard limits of construction disturbance for each waterway based on current information. The plan should identify present development that conflicts with the state required setbacks, wetlands transition areas, and riparian buffers, as well as identify locations with disturbed corridors and rehabilitation of these corridors. Additionally, plans should be consistent with the plans of neighboring municipalities that share stream corridors; cooperation and collaboration between municipalities that have stream corridors in common is critical.

The Department notes that the Delaware River along Holland Township's border has been identified as critical habitat for a State Threatened species. The Stream Corridor Protection Plan should identify a 1000' buffer along the Delaware River beginning at the confluence of the Delaware and Musconetcong Rivers and the Category 1 Delaware River tributary (57000) (near Block 26, Lot 17.01).

The Department also notes that Delaware tributary 5700, Milford Creek, Hakiokake Creek, and Hariokake Creek in Holland Township are all Category 1 streams due to the existence of trout, a primary indicator of water quality. The Stream Corridor Protection Plan should include specific actions, requirements and performance standards to meet the water quality and water temperature requirements of trout production and trout maintenance waters.

In addition, the Department has recently proposed designation of the Musconetcong River bordering Holland Township as a Category 1 stream. This proposed designation is due to the exceptional ecological significance of the water body, meeting two specific criteria: documented occurrence of T&E species (freshwater Triangle Floater), and; nonimpaired benthic macroinvertebrate community measured by the Department's Rapid Bioassessment Protocol, in-stream habitat and water quality that meets the exceptional aquatic community standards. The Stream Corridor Protection Plan should include specific actions, requirements and performance standards to ensure that the water quality supporting ecological significance remains.

- **Habitat Conservation Program**

This program may include, but not be limited to, the adoption of appropriate environmental resource protection ordinances, land use zoning requirements, and site plan/subdivision standards that collectively protect endangered or threatened species habitat. Additionally, there must be specific recognition and consideration of habitat protection in other municipal programs, for example, the prioritization of open space purchases, siting of affordable housing and the development of public infrastructure, including active recreation areas. This program should include conservation requirements and implementation measures that are designed to fully mitigate any incidental taking of the suitable habitat of a federal or state listed endangered or threatened species. Requirements and measures may include the creation, enhancement, restoration, acquisition or preservation of habitat and/or monetary contributions for these purposes. It must be recognized that ecosystems do not follow political boundaries, but rather flow continuously across them. Development and implementation of regional habitat conservation programs is encouraged. Collaboration between neighboring municipalities when planning for habitat conservation is crucial since the identification of wildlife corridors can help facilitate critical habitat conservation. A successful habitat protection program will create an ecosystem management approach that will include an integrated, multi-municipality, cooperative plan.

- **Total Maximum Daily Load (TMDL) Implementation Plan (IP), to comply with TMDL limits**

When a TMDL has been adopted for a local water body, the IP must include a plan to obtain these standards, or support the use designated (drinking, fishing, swimming etc.). These measures typically include effluent limits for wastewater discharges, point source storm-water controls, best management practices for point sources of storm-water, and non-point sources of pollutants.

Two TMDLs have been adopted that impact water bodies in Holland Township:

1. *Total Maximum Daily Loads for Fecal Coliform to Address 28 Streams in the Northwest Water Region* - approved September, 2003 - Musconetcong River in Watershed Management Area 1, and Hakhokake Creek in Watershed Management Area 11.
2. *Total Maximum Daily Loads for Fecal Coliform to Address 10 Streams in the Northwest Water Region* - approved September, 2005 - Impacts the Musconetcong River in Watershed Management Area 1, and Hakhokake Creek in Watershed Management Area 11.

- **Greenhouse Gas Emissions Reduction Plan**

Holland Township should prepare a Greenhouse Gas (GHG) Emissions Reduction Plan that sets GHG reduction targets and identifies strategies, including an implementation process, for reducing GHG emissions associated with municipal operations, and residential, commercial, industrial and transportation sectors. Projected GHG reduction targets should be consistent with and supportive of State of NJ GHG reduction goals as stated in the NJ Global Warming Response Act. In addition, each municipality should identify, 1) projected major impacts to municipal quality of life resulting from anticipated global warming effects, and, 2) discuss how municipal planning and policies will begin to address these impacts.

Historic Preservation Plan

Appendix A of the Master Plan lists the historic sites in Holland Township. DEP recommends that the Township develop a Historic Preservation Plan. A successful Historic Preservation Plan will include:

- **Historic & Cultural Resources Inventory**

The first step in planning for historic preservation is to develop a detailed inventory that identifies and evaluates the significance of historic and cultural resources already listed or potentially eligible for

nomination to the National and New Jersey Registers of Historic Places. The inventory can be stand-alone, but ideally should be located in the historic preservation element of the Master Plan. A survey methodology should clearly identify the standards to determine the significance of a historic site, historic district, or cultural landscape. The inventory should include GIS mapping, photography, and narrative.

- **Historic Preservation Plan (master plan element)**

The historic preservation plan should also outline the strategies for the preservation, restoration and adaptive reuse of these properties. There must be a discussion of the impacts of other master plan elements on the preservation of these resources in either the inventory or the historic preservation plan. The plan shall also include an Education and Outreach Component and a detailed discussion of Funding mechanisms available for historic preservation.

- **Implementation documents and mechanisms**

In addition to funding resources, the historic preservation plan should be supported by a range of planning tools including:

- Creation of Historic Commission to guide the protection of historic and cultural resources and to advise the governing body and planning board as necessary
- Historic Preservation Ordinance
- Transfer of Development Rights(TDR)
- Rehabilitation Plan – to encourage property improvements to complement preservation activities and enhance the context

Wastewater Management Plan

Holland Township has recently submitted a Wastewater Management Plan (WMP) to the Department and is currently under review by Department staff. The Department is working internally to ensure that the WMP and the Plan Endorsement process are generally consistent - there are several items included in this report that are also required as part of the WMP.

DEP has determined that the WMP and the Township's planning documents are generally consistent. However, the Township's response to the request for more information in this report may alter that determination.

The Holland Township WMP must be adopted pursuant to the Water Quality Management Planning rules.

Further, as noted previously in this report, the Townships planning documents are currently inconsistent with the WMP currently under review by Department staff. Upon adoption of the WMP, the Township must re-examine, and amend, all of its planning documents, ordinances and development regulations to be consistent with the WMP.

Natural Resource Inventory

As noted earlier in this report, the Department is currently developing an update to the Landscape Project that identifies habitat for threatened and endangered species habitat. Upon public release of this data, Holland Township must update its Natural Resource Inventory to address any changes to the identification of habitat. This amended NRI should be used to guide development of further planning documents - including the Conservation Plan Element of the Master Plan - and environmental resources protection ordinances.

Hazard Mitigation Plan

Holland Township should develop a Hazard Mitigation Plan consistent with FEMA guidelines. This plan should identify policies, activities and tools to implement mitigation actions. Mitigation is any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event. This process has four steps:

- Organizing resources
- Assessing risks
- Developing a mitigation plan
- Implementing the plan and monitoring progress

Sustainability Statement

All master plan elements shall remain consistent with the State Plan's vision for sustainability. Sustainable planning entails designing the various elements in a way that will meet the needs of the present in an equitable manner, without compromising the ability of future generations to meet their own needs. Although it is often expedient to plan for the present and near future, the State Plan's vision for New Jersey describes smart growth as sustainable growth that creates communities of enduring value.

Holland Township develop a sustainability statement that outlines how the sustainability objectives underlie, relate to, and provide additional direction to the elements of the Master Plan. The Township is strongly urged to compile their sustainability goals, objectives and actions into a Municipal Sustainability Statement. This document will serve as a foundation and blueprint for incorporating sustainability into all aspects of local governance. Critical areas should include (where appropriate): energy management, greenhouse gas reduction, green design, water conservation, healthy regional agricultural systems, waste management, toxics reduction, sustainable economic development, mobility and access, and environmental education. This holistic approach to planning helps municipalities determine which policies and practices are most appropriate and suitable to local conditions and community vision. Recommended actions may include, but are not limited to:

- Performing greenhouse gas and energy audits
- Create greenhouse gas reduction action plan (see page 22)
- Maximizing energy conservation and efficiency
- Using alternative and renewable energy uses
- Requiring and promoting water conservation and use efficiency
- Reducing auto-dependency
- Green business: providing programs and incentives for sustainable business and business practices
- Requiring or encouraging "green building" standards for municipal facilities and redevelopment areas, and encouraging green design for other private sector projects.
- Institute programs to reduce use of and exposure to toxic chemicals, such as IPM, green procurement, diesel emissions reductions.
- Encourage and provide incentives for the use alternative energy
- Use of agricultural best management practices
- Supporting regional agriculture
- Adopting green purchasing policies
- Improving local materials reduction, re-use and recycling programs.
- Reduce public fleet energy use and air emissions via fleet management and alternative technologies
- Providing public education and outreach to help residents incorporate sustainable practices into their homes and lifestyles.

Open Space Protection

The Department recommends that Holland Township implement a dedicated funding source for the preservation of open space (dedicated tax, bond indebtedness).

Source Water Protection Plan

A Source Water Protection Plan shall manage potential sources of contamination and threatening activities that occur within a source water protection area. Plans shall include delineation of the source water protection area, an inventory of known and potential contamination sources, a determination of water supply system susceptibility to these contaminants, public outreach and education about threats, implementation measures to prevent, reduce or eliminate threats, and contingency planning strategies to address with water supply contamination or service interruption emergencies. Source Water Protection Plans can be developed for the protection of either groundwater supplies of drinking water, wellhead protection areas or surface water supplies, intakes and reservoirs and their drainage.

Septic Management

DEP recommends development of Septic System Management Plan and adoption of a Septic System Management ordinance be adopted. A Septic System Management Plan is intended to address the malfunctioning of septic systems. These malfunctions have been shown to adversely affect public health and welfare and the environment. Such systems constitute a potential source of pollution of ground and surface waters, contamination of potable water supplies, foul odors, nuisance problems and other hazards to public health. Such a Plan should establish a management program, regulate septic systems to protect public health, develop a program to maintain records and manage systems, and promote the proper management and maintenance of septic systems over time.

Highlands Conformance

As noted earlier in this document, the Highlands Act identified the Township as wholly within the Highlands region, and the northern portion of the Township in the Highlands Preservation area. The portion of the Township within the Highlands Preservation area is required to be consistent with the Highlands Regional Master Plan, once adopted. The Township must go through the Highlands Plan Conformance process.

Environmental Resource Protection ordinances

Dependent on the response by Holland Township to the request for further information (above), the following environmental resource protection ordinances are/will required to be adopted, or amended, in order to provide sufficient protection for the environmental resources in the Township and the region:

- Environmental Assessment ordinance and checklist
- Conservation Subdivision Design ordinance
- Water Conservation ordinance
- Source Water Protection ordinance
- Stream Corridor/Riparian Conservation ordinance

Further, any ordinances required for implementation of the plans and analyses included in the Conservation Plan Element of the Master Plan, Historic Preservation Plan, Wastewater Management Plan, and any other environmental resource protection plans, including, but not limited to the following, will also be required:

- TMDL ordinance
- Fertilizer Application ordinance
- Septic Density ordinance
- Steep Slope ordinance
- Habitat Protection ordinance
- Historic Preservation ordinance

Finally, the zoning and other development regulations must be consistent with all required conservation documents.