

**Final Draft RMP Comments  
Of  
The Association of New Jersey Environmental Commissions  
(A.N.J.E.C.)**

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# Comments by Section

## Chapter I. Introduction

### Part 1. Description of the Highlands Region

#### The New Jersey Highlands Region p. 1

- This section should mention that while the NJ Highlands Region produces over half the drinking water for the residents of the State, this water comes from only 13% of the land area of the State (Act).
- Historic cultural and scenic resources should be mentioned as Highlands values to be protected.

#### Environmental and Land Use Setting p.1

- The idea of introducing the concept of a “significant green belt” is a good one.
- This section should also cover climate: precipitation, maximum temperatures, minimum temperatures etc. as typically found in environmental resource inventories.
- This section contains no discussion of “Land Use Setting”. The council has numerous statistics that could be employed here to describe the current land use situation.

### Part 2. History of the Highlands Region p. 1-2

- Beginning the discussion with the end of the Wisconsin glaciation ignores significant parts of the region’s natural history and landform evolution. This discussion could be strengthened by a more thorough discussion including major geologic events. The discussion presented would more appropriately be titled “Recent Geologic History”. NJGS could provide substantial help here. Especially useful is *the “Geologic History & Virtual Field Trip of the New Jersey Highlands”* available at [www.state.nj.us/dep/njgs/enviroed/freedwn/HighlandsVFT.pdf](http://www.state.nj.us/dep/njgs/enviroed/freedwn/HighlandsVFT.pdf).
- The discussion of the differing character of the landscape due to the most recent glaciation is good. However, the nature and hydrologic value of the terminal moraine and associated outwash deposits, particularly where they are underlain by limestone, should be described.
- The traditional sequence of settlement events, beginning with agriculture and proceeding to industrialization is generally *not accurate* in the Highlands. Early settlement was stimulated to a large extent by the extraction and production of iron. The extensive deforestation caused by the charcoal iron industry often created the opportunities for agriculture. Agricultural settlement was, however, a determining factor in the limestone valleys: Musconetcong and Long Valley. There is considerable evidence that, even in pre-revolutionary times, agriculture was involved with extensive trade networks outside of the region. Compared to other parts of New Jersey, agriculture was a later land use. See, Wacker, Peter O., and Clemens, Paul G.E., Land Use in Early New Jersey, New Jersey Historical society, Newark, N.J., 1995.
- The natural resources needed for the production of iron include:
  - *Iron ore* (magnetite predominantly used in the Highlands, but hematite also was extracted). Magnetite is an iron oxide but several other natural forms of iron ore exist),
  - *Fuel* (charcoal first, followed by anthracite coal from Pennsylvania). The production of charcoal for ironworking fuel denuded large portions of the existing Highlands forests. As the forests were exhausted and technologies were developed to smelt the ores with coal, this fuel supplanted charcoal. This change was facilitated in part by the construction of the Morris Canal and later railroad development.

- Limestone is required as a flux in the iron making process to facilitate the separation of the iron from the rock matrix.
  - Water Power, although highly desirable in the smelting process (providing an automated source of air blast to raise temperatures), is not strictly necessary to the production of iron. However, it was an important element in larger iron works
- P2, para. 3. Add: “*Significant ironworks structures and related features include the mines themselves (the Highlands contains 95% of abandoned iron mines in NJ), roads and other transportation facilities including the Morris Canal and numerous railroads, furnaces, forges (not forages), waterworks, and dams*”.

### **Newark Watershed and Reservoir Development**

- Figures:
  - Areas Served Outside the Highlands Region, (p.5): As submitted in previous comments, the map under- represents the importance of Highlands water by omitting the proportion used from the Delaware River in Pennsylvania and Easton Pa., Point Pleasant Pa., (evaporative cooling for power generation, connected to the Merrill Creek Reservoir in Warren County) and as far downstream as Philadelphia, possible use on the Wallkill in New York (?) and possible (?) connections to New York via Staten Island. A calculable portion of the flows in the Delaware are discharges from the Highlands via the Paulin’s Kill, Pequest River , Musconetcong River, Pohatcong Creek and numerous other tributaries.
  - Source Water Protection Areas and Reservoirs (p. 11). Although improved from the earlier draft, this figure still contains two areas shown in yellow with no accompanying legend category. The HUC 14 boundaries are not included as a legend category. A similar map with municipal boundaries should be included. Getting municipal officials to relate to the landscape as a series of HUC 14 areas as opposed to municipal boundaries will be a major challenge during conformance.
- While the Newark reservoir system and the Spruce Run-Round Valley systems are significant in the history of water supply development in the region, they were accompanied by a range of projects at smaller scales throughout the region. This history should be described in greater detail.
- Significantly, numerous water sources have been abandoned either due to pollution or inadequate supply. These losses should be discussed at a minimum and mapped if possible: e.g. Peapack-Gladstone Reservoir, Chester Twp., abandoned due to fecal coliform contamination and siltation.
- Perhaps the earliest major reservoir development in the region was connected with the construction of the Morris Canal. To supply water for this structure, the dam at Lake Hopatcong was raised, Cranberry Lake was improved and Greenwood Lake was tapped among others. All these actions have left lasting changes on the hydrography of the region and are of cultural and historic significance.
- Recent reservoir development included the construction of the Merrill Creek Reservoir in Warren County to provide flow augmentation to the Delaware River to support power generation at the Limerick generating plant in Pennsylvania. The construction and significance of this non-potable reservoir should be added to the discussion.
- The council has heard numerous public comments directed at recommending the development of new surface water reservoirs in the region. It is our current understanding that feasible sites do not exist within the Highlands Region. This fact, if true should be presented.

### **1907 Potable Water Commission Report**

This is an excellent discussion but should be augmented with a discussion of other water supply plans developed between 1907 and today. Of particular note is the 1955 Water Supply Master Plan which included evaluations of several reservoir projects in the region.

### **United States Forest Service Study**

- Both the U.S. F.S. studies should be made available by links on the Council’s website.

- This section should contain a discussion of how the RMP interacts with the Federal program both now and in the future.

#### Highlands Task Force

- The Highlands Task Force Report should be made available by a link on the council’s website.

#### Part 3. The Highlands Water Protection and Planning Act

- The full text of the Act, and the other information posted on the Council’s web site should be joined by links.
- The discussion about the Act’s findings should be presented to help establish the legitimacy of the RMP.
- Reference should be made to the so called “equity issue” as defined in the Act, not as represented by commenters.

## Chapter II: Analysis of the Highlands Region

### Part 1, Natural Resources

As ANJEC commented in previous testimony, the RMP should contain an objective inventory of environmental factors present in the region. This is an essential step in the development of policy and provides a “base line” against which to evaluate the operation of the Plan over time. The current RMP jumps directly from the “Introduction” to “Analysis of the Highlands Region”. This section improperly mixes the process of inventory preparation with analysis and policy development. Once the objective conditions of the region have been established it is then logically possible to analyze and develop policy responses.

- As stated previously, ANJEC strongly recommends that this entire section be re-written to add an objective *inventory* of the Highlands region.

ANJEC has long advocated the preparation of thorough Environmental Resource Inventories (ERIs) as the basis of municipal master planning. Such an approach is also essential to the rational development of a regional plan. The Final Draft has lost what little objective inventory data was presented in the Nov 30, 2006 Draft under Section II. C., Environmental and Land Use Setting. This is regrettable since the Council staff has compiled vast amounts of objective environmental data.

Specific Guidance is available on the Association’s website ([www.anjec.org](http://www.anjec.org)), “The Environmental Resource Inventory: ERI”. This guidance defines an ERI: *“An ERI is an unbiased report of integrated data. It provides baseline documentation for measuring and evaluating resource protection issues. The ERI is an objective index and descriptions of features and their functions, rather than an interpretation or recommendation” (ERI, p.1).*

- **Objective resource inventory data should be compiled and presented. These data should be made available to local and county government in printed and electronic formats prior to the beginning of the conformance process.**
- **The subject headings in the Nov. 2006 Draft should be retained but should be expanded to include the following not included in the November 2006 Draft RMP:**
  - **Geography/Topography:** Physiographic region and sub-regions, relief, elevation, slopes.

- **Climate:** Prevailing winds, maximum and minimum temperatures, precipitation monitoring sites, annual average precipitation, seasonal precipitation, growing\_season, USDA climate zones, frost dates and frost line.
- **Air:** Air quality, monitoring locations, stationary sources of pollutants, vehicular pollution “hot spots”
- **Historic and Cultural Features:** Historic sites, districts, areas, historic roads, railroads, bridges, existing and possible archaeological sites.
- **Scenic qualities,** viewsheds, discussed particularly in connection with the Lakes Management District.
- **Known Contaminated Sites**
- **Critical Environmental Areas**
- **Energy:** current consumption, sources, future demand, energy facilities, including power generation and transmission, alternative potential: conservation, hydro, wind, solar, biomass, and ethanol. For example, solar potential could be mapped using an aspect analysis.
- **Add a separate Hydrology/Hydrography Section**
- Discussion of groundwater, surface water, wetlands, vernal pools etc. should be combined in a hydrology section, combined with the discussion of watersheds, waterways, and aquifers.
- **Expand the discussion of vegetation to include:**
  - Types of vegetation, forest communities in particular
  - Fire hazard and history of wildfire
  - Pollution-effects on vegetation
  - Historic, recreational and economic values, especially forestry
  - Forest cover
  - Agricultural areas
  - Street tree resources
- **Add a separate geology section:** We note that the current draft no longer contains a separate, identifiable geology section. This is particularly troubling now after the inclusion of the Karst section. Geology is the key to the definition of the region’s boundaries, scenic and topographic character, hydrography and hydrology, and cultural history. **Expand the discussion of geology to include:**
  - **Bedrock geology, types and characteristics, especially carbonate rocks.**
  - **Surficial geology**
  - **Depth to bedrock**
  - **Unconsolidated deposits**
  - **Generalized groundwater yields and natural water quality issues: (e.g., arsenic, corrosivity, radioactive substances and asbestos) all know to be naturally occurring Highlands issues.**
  - **Economic mineral resources, including historic iron mines, non-ferrous ore mines (zinc, graphite), quarries, sand and gravel, exempted mine properties and radioactive materials.**

The Association has previously presented testimony on the importance of carbonate rock formations in the Highlands, both as a constraint to development and as a significant natural resource. We complement the

Council for including a section on Carbonate Rock (Karst) Topography. However, this discussion should be placed within the context of a complete discussion of geology.

#### **Subpart a. Highlands Forest Resources**

- The Association agrees that forests are a crucial element of the natural resource base of the Highlands and with the need to preserve large tracts of contiguous forests.
- We support the approach of ranking forest integrity by sub-watershed but a review of the Ecosystem Technical Report has failed to clarify a number of issues critical to the ranking process. This lack of specificity will prove difficult during conformance. The RMP should clarify the following:
  - **High Integrity Forest Sub-watershed:** What is meant by “predominantly forested”? What is meant by a “high proportion of forest cover consisting of ....? What is meant by “high core area”, “large patch size”? How large is “an increase in distance” to the nearest patch?
  - **Moderate Integrity Forest Sub-watershed:** What does a sub-watershed that is “predominantly forested but does not exhibit a high proportion of forest cover, core area or patch size ” mean? What is “an increase in distance to nearest patch”?
  - **Low Integrity Forest Sub-watershed:** What is “predominantly non-forested”? What are “low values” for proportion of forest cover and patch size” and what is a “high distance” to nearest patch?

The specific values used to develop these rankings using GIS should be presented here, as well as referring the reader to the *Ecosystem Management Technical Report*. In reviewing the technical report, the language presented in the RMP is directly extracted but the values used in the analysis are not presented in either document.

#### **Subpart b Highlands Open Waters and Riparian Areas**

- **Add a discussion of Trust Resources/Public Trust Doctrine**

This section introduces the important subject of Public Trust Resources. However, the concept of public trust resources is not well developed, particularly with regard to water resources. There is a fundamental lack of understanding among the reading public of this doctrine, its implications and, in particular, its difference to the more commonly understood western water rights doctrine, believed by many to apply to New Jersey.

There are additional applications of the public trust doctrine, including wildlife and scenic quality of concern to the Highlands region. These should also be discussed, either here or in other appropriate sections. The section should be expanded to better inform the reader about the public trust doctrine *as it applies to the Highlands*.

ANJEC has previously submitted comments regarding the public trust doctrine, provided referenced legal articles and advocated for its inclusion in the RMP and continues to make these comments. It is our view that this is an important legitimizing argument for the entire Highlands effort, including the RMP.

- **Add Policy/Programs to require on site mapping of Highlands Open Waters**

ANJEC supports the definition of Highlands Open Waters and appreciates the efforts of the staff to provide an updated stream coverage map. The section should note, however, that although the protection of Highlands Open Waters applies throughout the region, many of the regulated/protected features (springs, smaller wetlands, intermittent or ephemeral streams), will only be discovered by direct, on-site investigation. The Policies and Programs sections should ensure that appropriate mapping is carried out in these circumstances.

The discussion of the magnitude of stream length within the Highlands, wetlands extent and the fact that 2/5ths of the region are in riparian areas is good and emphasize the critical water resources value of the Highlands.

## 1. Evaluation of Watershed Value

- **Define “HUC 14” and explain the rationale for selecting HUC 14 units as a planning focus**

ANJEC supports the approach taken but cautions that implementation of this “new” concept will prove difficult at the municipal level. The introduction of the HUC 14 concept should be accompanied by an accessible definition of a HUC 14 and an explanation as to why these, rather than smaller or larger units, were selected as planning units.

- **Advise municipalities about use of HUC 14 units as planning areas.**

Municipalities should be advised that rarely, if ever will they have exclusive jurisdiction over a HUC 14 but rather they should expect to cooperate with their neighbors in land use planning and watershed management with the assistance of the Highlands Council and the NJDEP

- **Develop a more finely resolved watershed classification system**

The classification of HUC 14 watersheds by resource value is an important effort. However, the methodology used is primarily an assessment of *natural* condition and is thus primarily a *preservation* strategy. The other goals of *enhancing* and *restoring* watersheds are not well supported.

The literature, especially Schueler, (Site Planning for Urban Stream Protection, 1995) using only impervious cover as a planning factor, supports a specific policy framework. Schueler divides watershed into three categories:

- “*Sensitive Sub-watersheds*” (1-10% impervious cover) where the primary management goal is “to maintain predevelopment stream quality and protection strategies “rely on watershed wide and site limits on impervious cover as well as careful selection of urban best management practices”, (p. 43
- “*Degrading watersheds* (11-25% impervious cover) that are “managed under a more active stream protection strategy that relies on widespread application of BMPs, buffers and other practices...” (p. 43)
- “*Non-supporting sub-watersheds*” (26-100% impervious cover) where “the overriding stream protection strategy for these streams shifts to the removal of urban pollutants to protect downstream waters”. Storm water retrofits are encouraged, where appropriate.

The amount of research and data developed by the Council if employed, would allow a more nuanced series of policies dealing with enhancement and restoration, important goals of the Highlands Act. The direct application of these strategies has been fully developed and could be the basis of a more effective approach in the RMP. See Article 27, Watershed Protection Handbook, included as *Appendix A*

- **Include positive consideration of scenic, historic and cultural features in the watershed classification system.**

The simple three tiered valuation system does not consider other Highlands Act requirements such as scenic or historic character. For example, developed areas may include a deep and rich assembly of cultural resources that relate to and are within the watershed area. Such features as bridges, mills, iron forges, dams, water diversion structures, rail lines, residential and commercial structures, are routinely encountered within developed areas. However, while these features provide a “sense of place” in the landscape and are important habitats, for people, the classification system proposed treats these as *negative factors* along with development in general. Including a mechanism for a positive consideration of these values would allow the use of recently developed techniques like designation of “heritage corridors”. For example Article 27, mentioned above and included as Appendix A, includes Cultural/Historic areas as a component of land conservation, using a definition compatible with the RMP: “*historic or archaeological sites, trails, parkland, scenic views, water access, bridges and recreational areas*”. (p.127)

- **Give positive consideration to Wild and Scenic River status in the classification system.**

Wild and Scenic River designation is currently present in place on the Musconetcong and Delaware Rivers in the Highlands region. These designations pass through developed portions of HUC 14 areas and should be considered as positive criteria in watershed classification.

## 2. Evaluation of Riparian Integrity

- **Consider the presence of cultural features as positive values in riparian area classification.**

Similar comments to those made about watershed classification can be made concerning the riparian area evaluation methodology where cultural activities may be more concentrated and are highly likely to occur. The title of the section is more appropriately “*Riparian Area Natural Integrity*”. Evaluating riparian area for their “naturalistic” conditions, keeping in mind that there are virtually no intact original natural areas in the entire Highlands, is an important part of the Highlands effort. However, none of the Highlands is in its purely natural condition. Cultural modifications may have added features of considerable value, and their protection is an important goal of the Act. For example every water impoundment in the North Branch of the Raritan watershed is man made and many are of considerable ecological, recreational, scenic or water supply value. These alterations should be considered as *positive values* while ranking the value of riparian areas in the Highlands plan.

### **Subpart c. Steep Slopes**

ANJEC strongly agrees that steep slopes are areas of critical concern in the Highlands. However, as can readily be seen by the location, design and intensity of existing and recently permitted development throughout the region, the critical nature of steep slopes is not well understood by local jurisdictions. The RMP should:

- **Clearly explain how slope categories are measured.**

The first line should read, “Slope is a measurement of the steepness of terrain and is defined as the vertical change in elevation over a given horizontal distance *expressed as a percentage*.”

There is a common public confusion about steepness expressed as *in degrees* as opposed to *a percentage*. This should be clarified since a 45 degree slope is also a 100% slope.

- **Clarify why steep slopes are critical areas.**

There is also a general lack of understanding about *why* steep slopes are critical. Steep slopes are, as a characteristic of their geomorphology, *less stable* than flatter land. The discussion should clearly distinguish between the loss of soils and critical topsoil (erosion) and the deposition of these detached soil particles, particularly in water bodies or wetlands (sedimentation). Sediment should also be discussed as impacting ecological processes as well as interfering with drinking water treatment, recreation, and scenic enjoyment.

- **Prepare a new steep slope map using LiDAR data if available before final adoption**

ANJEC recognizes the need to use the DEM data to generate the regional steep slope protection area map. However, the LiDAR data are essential to evaluating steep slopes during site plan review and in other areas of the Plan. A new steep slope map should be prepared immediately after the LiDAR data are obtained and quality checked, hopefully before final adoption.

### **Subpart d. Critical Habitat**

- **Rewrite the opening paragraph**

ANJEC supports the protection of wildlife habitat and biodiversity. However, it is unclear as to why a section entitled “Critical Habitat” immediately begins with a discussion of biodiversity. The term is not defined in the glossary and is generally unfamiliar to the public. It appears that the intent is to discuss wildlife habitat at the landscape level, but the focus on a sub-category of wildlife habitat, critical habitat, is confusing.

- **Define and clarify the term “biodiversity”.**

The first sentence is a “run on” sentence and should read, “Biodiversity is the variety of plant species, animal species and all other organisms found in a particular environment. Biodiversity is *one recognized means* of assessing ecological viability”. Although this would be a clearer exposition, the definition

provided ignores the scope of biodiversity which includes *genetic*, *species* and *ecological* diversity. It is unclear which or all of these aspects of biodiversity the Council intends to protect or emphasize.

- **Develop an explanation of landscape level habitat protection as a regional issue.**

The general approach, based on the identification of “critical habitat areas” is disappointing. The result, as depicted on the “Critical Wildlife Habitat” map (p.35) seems to depict virtually the entire Highlands region except for developed and active agricultural fields as critical wildlife habitat. Although, based on the methodology used this may be “correct”, it is difficult to understand how such a coarse and undifferentiated analysis will be used to guide land use decision making at the local level. This is a critical matter since municipal officials do not commonly view wildlife habitat at the landscape level, preferring to deal with isolated “critical areas”. The approach taken by the Council in the Draft will tend to undermine the larger regional issues of protecting a functional regional ecosystem in the Highlands.

### 1. Critical Wildlife Habitat

- **The first paragraph indicates that “...an updated Landscape Project (Version 2) was developed....” Should this read Version 3?**

ANJEC supports the use of the Landscape Project, Version 3 data.

- **Clarify, map and provide policy/programs to focus protective efforts on areas with high “Highlands Conservation” ranking.**

It is interesting to note the attempt to develop a “Highlands Conservation Rank”. ANJEC supports this approach but requests that the term “Rank” not be used to avoid confusion with the Landscape Project data and, most importantly, that the mapping resulting from this analysis be presented as a separate plate in the RMP. Clearly, these areas should have a *heightened focus* for the Council with separate identifiable policies and programs.

### 2. Significant Natural Areas

- **Provide Policies/Programs to link significant natural areas region-wide.**

ANJEC supports the approach taken in designating and mapping significant natural areas. However, as critical “nodes” of natural quality, these areas should be linked with other connective areas into a region-wide natural sites system.

### 3. Vernal Pools

- **Expand the discussion about and clarify the importance of vernal pools.**

ANJEC supports the approach used to designate DEP certified vernal pools. ANJEC believes that protecting these areas will be controversial. The Council should expand and clarify the discussion of their importance, especially in the wider context of amphibian extirpation or extinction.

- **Consider other specific habitat types for similar protective treatment.**

Other specialized habitat types could be considered for similar treatment, for example, bat hibernacula (often cultural features like abandoned iron mines), great blue heron rookeries, native brook trout spawning areas etc. While vernal pools are undeniably critical, other habitat types particularly those associated with “Critically Significant (Rank 3) *Highlands species* should be given specific protection.

### Subpart e. Open Space: Land Preservation and Stewardship

Questions and misrepresentations about funding for open space acquisition have been constant refrains during the comment period. This section should not only describe in more detail the amount and scheduling of available open space funding for the region but should also provide policy guidance as to how these funds are to be applied by the Council to achieve conservation and stewardship objectives. If these cannot be shown to exist, at the present time, then the RMP should so state.

- The first paragraph in this section is unclear. This should be re-written to read,

*“Nearly one third of the Highlands Region (282,203 acres) has been preserved as open space. Open space preservation in the Highlands region serves a number of purposes, including providing space for active and passive recreation, preservation of scenic character, preservation of historic sites, farmland*

*preservation and, importantly, the protection of public trust resources, most notably water and wildlife . Maintaining these lands to ensure that their conservation values are protected for future generations is an important part of land preservation. This continuing commitment, which continues beyond the initial purchase, is termed “stewardship”.*

- The term stewardship is largely unfamiliar to most people and should be a defined term in the Glossary.

Stewardship may be accomplished in a number of ways, including resource preservation management of public lands, application of agricultural best management practices to privately held preserved farmland, monitoring and enforcement of publicly held conservation easements, and purely private management actions. Stewardship, particularly of privately held lands, must be accompanied by an on-going landowner educational effort and training of public officials.

The discussion on the GSPT may need to be updated to reflect the situation current at the time of adoption. However, the “strong and significant commitment by the State”, (P.38) is difficult to envision without a fully funded GSPT.

- ANJEC supports the re-authorization of the GSPT and strongly suggests that specific language either in the re-authorization instrument or in regulatory policy about the specific dedication of funding for the Highlands be included to address landowner concerns.
- The language about the critical nature of GSPT funding should be more forceful and the Council should continue to advocate for re-authorization.
- ANJEC supports the use of a “water consumption fee” as described on p. 38 provided that the use of these funds is accompanied by a prior planning framework to guide acquisitions to high priority water resources related lands. We would specifically object to the use of such funds for active recreational development, maintenance of active recreational facilities, or the construction of buildings and infrastructure. Funding from this source should be primarily used for planning, acquisition and stewardship of natural functions related to water resource preservation. Funds collected using this approach must be specifically dedicated to preserving and managing important, defined source water areas in the Highlands.
- *All* applicable Federal Programs should be described. The Forest Legacy Program’s priorities should be reviewed by and coordinated with the Council’s open space planning objectives.
- Discussion of the source of LWCF funding, the history of allocations to New Jersey and a more detailed account of results of this funding in the region, including specific examples, should be included. The future outlook should be described
- The importance of local and county open space funding should be stressed more strongly. The Council should co-ordinate its open space acquisition programs with these programs. Charts showing current funding generation by counties and municipalities should be displayed. These are currently available from Green Acres. However, these data do not reveal how much (if any) of this funding, will be *specifically available* to Highlands region projects.
- The Council, in consultation with counties and municipalities, should attempt to establish *specific funding allocations* for Highlands land preservation funding.
- The role of private land trusts as either “pass through” entities or holders of a property interest (conservation easements, or fee acquisition) should be included. At a minimum, this discussion should include:

- Current IRS income and estate tax advantages for private donations, including bargain sales. (Current regulations and pending legislation are highly favorable).
  - Case examples of private land trust actions in the region
  - A list of private land trusts operating in the region with contacts.
  - A warning about the inappropriate use of the pre-Highlands Act appraisal values in claiming deductions.
  - How to use Highlands data to substantiate the “public purposes test” for claiming deductions.
- The role of other entities in land preservation in the region should be discussed, including at a minimum:
    - The N.J. Infrastructure Trust
    - D.O T. programs: TEA 21, etc.
    - Palisades Interstate Park Commission
    - New Jersey Water Supply Authority

The final paragraph discusses the “equity standard” correctly. This discussion should also be included in the “Landowner Fairness” section. The notion that landowner equity must include speculative values is simply wrong.

- The so called “equity issue” has been and will continue to be misrepresented unless the Council clearly defines what the Act requires and how the RMP responds.

#### **Subpart f. Carbonate Rock (Karst) Topography**

ANJEC commends the Council for including this section in response to comments.

- Karst topography, while potentially visible at the surface, is not strictly a surface condition as implied on p. 38. To the contrary, karst is a *three dimensional* topographic condition with the potential to contain substantial sub-surface structural conditions of concern as correctly described.
- This section should note the extreme importance of carbonate rock aquifers in the region (most prolific) especially where they are overlain by permeable sands and gravels. These areas should be shown on the *Carbonate Rock Area* map (p. 41).
- The Carbonate Rock Area map should include those areas that contribute drainage to the carbonate rock area once the LiDAR data become available. These areas have the potential to negatively affect carbonate rock aquifer water quality and cause subsidence if stormwater is not properly handled.
- ANJEC commends the Council for noting that sinking streams and sinkholes direct surface water run-off into karst aquifers with little or no attenuation of any transported contaminants. However, the list of potential sources (stormwater basins, septic system leaching fields and sewers) is incomplete. The list should include agricultural run-off, lawn run-off, underground pipelines, forestry activities, soil disturbance, underground storage tanks, toxic chemicals, and solid waste. Some of these are best controlled at the site planning stage while others are addressed by police ordinances and master planning and some are best addressed by continuing education programs.

This section should note that the nitrate dilution model utilized elsewhere in the RMP tends to allow greater septic density on the carbonate rock areas due to the larger volumes of groundwater present as compared, for example, to the Precambrian rock. However, due to the

extreme sensitivity and high water supply value of these aquifers, they should not be allowed to develop to these densities.

- The section should note the role carbonate rock plays in:
  - Landscape formation
  - Formation of important agricultural soils
  - Shaping the cultural landscape
  - Influencing settlement patterns
  - The role of carbonate rock in the highlands iron industry
  - Ecological processes, especially stream flows and thermal control
  - Habitat significance (calcerous fens, cave dwelling species)
  - Economic value
  - Unique topographic developments and minerals (Franklin limestone).
- New land uses that constitute unacceptable risks in karst areas should be defined. For example:
  - New underground storage tanks
  - Solid waste landfills
  - Hazardous waste storage and disposal
  - Hazardous materials storage and handling
- Remediation of current high risk land uses in karst areas should be prioritized. For example:
  - Malfunctioning septic tanks
  - Existing underground storage tanks
  - Solid waste landfills
  - Known contaminated sites

#### **Subpart g. Lakes, Ponds and Reservoirs**

- ANJEC supports the inclusion of the Lake Management Area in the RMP
- ANJEC questions the use a 10 ac. surface area for mapping purposes. Numerous smaller ponds have considerable ecologic and scenic value.
- This section should note the historic significance of lakes and dams in the region, including water power development, ice harvesting, lake community development and recreational development. Of particular note is Morris Canal's use of several lakes as part of its navigation system and as a water supply. Examples include Saxon Falls Lake, Lake Musconetcong, Cranberry Lake, Lake Hopatcong, and Greenwood Lake.
- The scenic value of lakes should be addressed.
- Dams should be addressed and mapped showing their compliance status. There are numerous dams within the region. Many of these are not in compliance with the requirements of the Dam Safety Rules and may constitute a public hazard during flooding. Aid and assistance to bring these structures into compliance should be an objective of the RMP. While dams may cause ecological problems (thermal, connectivity, dissolved oxygen, nutrients) the continual breaching of substandard dams under DEP order creates new environmental problems including silt mobilization as well as aquatic ecosystem impacts and loss of scenic amenity.
- The section should clearly state that the Lake Management Area is applied only to the developed areas around lakes. Otherwise the policies of the resident zone apply. Lack of understanding of this fact continues to result in considerable confusion at the municipal level.

- Rather than using a fixed distance buffer (Scenic Resources Tier) a more effective delineation approach would be a “viewshed” derived from topography particularly once LiDAR data become available.

## **Part 2 Water Resources**

### **Subpart a. Water Quantity, Availability and Use**

The apparently simple approach of “protecting existing safe yields” (p. 43) should be noted as a temporary condition of the RMP. The definition of “safe yield” in the field of water resources management is a moving target. In the case of the Highlands, the definition must include not only the *preservation* of Highlands aquatic ecosystems, but also their *restoration* and *enhancement*.

- The Council should re-define “safe yield” as it applies to the Highlands and include the definition in the glossary.

This approach may reveal that current assumptions about permissible water withdrawals are in conflict with the purposes of the act. The Council should be prepared to advocate for reductions in allocation where such conditions exist.

- ANJEC recognizes that “methods that provide a direct relationship between aquatic ecosystem integrity and stream flows are not currently available” (p.43) but strongly urges the Council to continue developing such an approach.
- The terms “depletive” and “consumptive” water uses should be described in the text. P.43). These are unfamiliar to most municipalities as defined in the RMP.
- The map of Existing Constrained Areas should be restored to the RMP
- The Net Water Availability Map should be accompanied by a discussion of the results. This discussion should include an analysis of the actual magnitude of the particular surplus/deficit by HUC and an explanation of the causes.
- ANJEC remains unconvinced that “restoration of water resources will occur through mitigation and management opportunities identified during the conformance process and local planning initiatives” (p.43)

### **Subpart b. Ground Water Recharge Areas**

- ANJEC commends the Council for developing a policy definition of Prime Ground Water Recharge Areas.
- The discussion of the 40% threshold should specify that this is 40% of the total recharge volume of a sub-watershed and that this is a relative, not an absolute, region-wide definition.

### **Subpart c. Water Quality**

#### **1 Surface Water Quality**

- Natural water quality should be discussed, particularly in light of the occurrence of asbestos, arsenic, radioactivity, hardness, iron, and other naturally occurring substances in Highlands waters.
- The statements at “91% of assessed water units do not support primary contact use” and “aquatic life support (65% of assessed water bodies do not support the use”, “and “the most common water quality parameters in violation of the State’s SWQS (write out surface water

quality standards) are bacteria, temperature, and phosphorous in descending order”, are excellent and should be highlighted.

- The potential causes for each of these parameters, including agriculture should be discussed.
- The potential causes of increased TDS (transport and road de-icing) should be discussed.
- The statement that “119 of the 183 sub-watersheds are impaired or threatened” is important and should be followed by a discussion of a representative sample of specific water bodies, the nature of their impairments, and their degree. This discussion should accompany the Impaired Waters Overall Assessment by HUC 14 map.
- ANJEC notes that a substantial number of HUC 14 drainages (34 or 35) shown on the Impaired Waters Overall Assessment by HUC 14 map do not have sufficient data to allow a determination of impairment. The RMP must include a program for gathering initial (base line) surface water quality data and monitor water quality for each HUC 14.

## 2. Ground Water Quality

- ANJEC notes that there are substantial data gaps in ground water quality assessment. The RMP must contain a plan to develop base line and subsequent monitoring data for the five major aquifers mentioned on p. 45.
- Despite this lack of data, natural water quality should be discussed with reference to naturally occurring water quality problems.
- ANJEC commends the Council for mentioning the linkage between water quality and acid rain (air quality). The Air Quality section (Part 9) should be amended to discuss acid deposition.
- The inventorying, prioritization and advocacy for remediation of Classification Exception Areas, Well restrictions Areas, Currently Known Extent Areas and Deed Notice Areas should be objectives of the RMP

## 3. Wellhead Protection

- **ANJEC has previously submitted extensive comments on this section of the prior RMP. Largely, we reiterate these comments.**

The section is incomplete, technically flawed and fails to adequately address the issue of providing sustainable protection to the public and public non-community wells of the region. There is nothing offered that exceeds the current, largely ineffective DEP Wellhead protection program despite the Act’s mandates. The confusion between the Wellhead Protection Program and the Source Water Protection Program remains. On p. 50, there is mention of individual source water reports being prepared for systems relying *on surface water*. This has no relevance to wellhead protection. The section introduces numerous terms that remain undefined either in the text or in the glossary. Many of these are unfamiliar to municipal officials.

The establishment of effective wellhead protection at the municipal level will require an accurate, defensible delineation of *total contributing areas*, not the current 3 Tier system. These areas should be the subject of strict prohibitions of lands uses with unacceptable risks. Remediation of known contamination sources within these areas should be pursued. Remediation of existing high risk uses such as underground fuel tanks should be pursued. Land management ordinances and policies should be specified and land acquisition prioritized to protect these total contributing areas. Educational programs should be developed and directed at landowners within the total contributing area. The issue of induced recharge to water supply wells requires additional upstream controls on surface water that are not provided for or discussed.

#### **Subpart d. Water Supply Utility**

- The section heading should read: Water Supply Utilities.
- The statement “*Future development within the Highlands Region at densities consistent with smart growth principles is generally reliant on access to public community water supply systems...*” (p.50) is unclear and misleading. Nowhere in the Act, the RMP, Technical Papers or DCA Smart Growth literature can we find any overt definition of “densities consistent with Smart Growth Principles”. This should be clarified by a general statement such as: “*Development densities higher than those that can safely be sustained by individual on-lot water supply and sewage disposal will depend on access to public community water supply systems*”.
- ANJEC appreciates the difficulties encountered by the Council in mapping water supply areas. The lack of reliable data encountered reveals not only the lack of spatial information but also the nearly complete lack of a regulatory process governing the expansion of water systems. This contrasts to the much more thorough regulatory process governing wastewater treatment systems. The Council should clearly identify this problem and recommend regulatory or, if necessary, legislative changes to assure governance of water supply expansion.
- The Land Use Capability Public Community Water Systems Map is informative. However, greater color separation is needed (blue tones). Further, the quintile breaks could be more numerous revealing a greater degree of information to municipal planners considering conformance.
- At this point, the narrative should discuss those systems with “no capacity”, those with the greatest capacity to support additional growth and the condition of those in the middle ground.
- ANJEC appreciates the discussion of allocation vs. firm capacity. However, from a planning standpoint the physical condition of the delivery infrastructure is a matter of concern. A map depicting the findings of the firm capacity analysis would be of use to municipalities.
- ANJEC understands the use of the allocation data to determine “ultimate utility capacity” (p 51). However, acceptance of the current allocations is only a first step to implementing the goals of the Act. It is clear that the ambitious mandates of the Act contemplate the adjustment of allocation, not only direct water to the most advantageous locations, but also to protect ecological functions. Historically, the allocation program may not have included these considerations.
- The last two paragraphs of the section reveal that the Council has not completed its most critical work with regard to water supply. The statement (p.52), “The result of this analysis allows for a comparison of utility capacity (essentially, how much capacity the water utility has available for future development) to Net Water Availability within each sub watershed. The Council should perform this critical analysis and display the results in spatial and tabular form.
- Finally, the last paragraph of the section (p.52) indicates that the Council “identified the appropriate next steps” but defers these crucial analyses to “the “planning process”. These are defined as:
  - *Identify those areas for which growth capacity would be useful.*
  - *Determine whether there is net utility capacity available to support additional demand.*

- *If net utility capacity exists, determine whether there are existing future commitments that correspond to the Existing Community Zones or conflict with them.*

This entire paragraph, despite its purported importance, is incomprehensible. What is meant by “areas for which growth capacity would be useful”? The last “next step” makes no sense, nor the following discussion that hints at some undefined “equitable method(s) of capacity allocation presumably to be used to resolve “conflicts” during the planning process.

#### **Subpart e. Wastewater Utility**

- The section heading should read, “Wastewater Utilities”.
- This section notes that currently approximately 80% of the wastewater capacity within the region is allocated. ANJEC notes that traditionally in New Jersey wastewater treatment planning, an overall commitment of 80% signals a system “at capacity”.
- The three bullet points should be fleshed out to describe how the Plan “focuses” on these areas. It appears that the first bullet is met by the production of the Land Use Capability Domestic Sewerage Map, but how the other two are met remains difficult to understand.
- Despite considerable work done in the Technical Report, there is little information provided of use in this section. At a minimum, the results of the Land Use Capability Domestic Sewerage Facilities Map should be discussed with reference to system capacities.

#### **Subpart f. Septic System Capacity**

- ANJEC supports the use of nitrate dilution modeling as one factor in regulating septic system density and protecting groundwater quality. **We caution, however, that reliance on any single factor exclusively is not wise planning or public policy.**
- The discussion of nitrate found in the second paragraph on p 50-51 should begin the discussion, **clearly establishing the human health impacts of nitrate, the ecological impacts and the use of this particular pollutant as an *indicator* of general groundwater quality.**
- The first paragraph should be placed second. **ANJEC commends the Council for recognizing that agricultural practices and lawn care practices, in addition to septic system effluent contribute to nitrate concentrations in ground water.**
- **ANJEC supports the use of drought conditions (1961-1965) in developing nitrate target levels but questions whether these targets include potential sources from agriculture and lawn care.** The presentation is unclear in this regard.
- It appears that the highest nitrate concentrations have been encountered in the Conservation Zone, where land use is predominantly agricultural. **We also note that much of this area is underlain by carbonate rock and that programs directed at managing septic system densities have no impact on agricultural components.**
- On p. 53 the statement is made that “*most of the region is considered unsuitable for the use of standard septic systems*”. **This statement is made without any supporting presentation either in the form of maps or tabular data. This should be corrected.**
- We would also note that the DEP rules for the Preservation Area limit the construction of septic systems to conventional systems. Does the Council have a position with regard to alternate testing and alternative design septic systems in the Planning Area? **The use of alternative testing and**

**design can greatly increase the land areas “suitable” for septic installation. The Council’s position on this critical issue should be clarified.**

- *The Land Use Capability Septic system Density Yield Map* shows the highest allowable septic densities precisely in areas with agricultural uses, high existing nitrate concentrations and carbonate rock geology. This is a pitfall of using the dilution approach which places the highest allowable densities on the most prolific aquifers. **Special treatment in policy and program is essential for protecting these unique and valuable water resources.**

### **Part 3. Agricultural Resources**

The initial discussion of agricultural land loss in the region is good. However it fails to address the root cause of agricultural land loss. Efforts directed at purchasing of development rights, while reducing the conversion rates of farmland (on average 1,346 acres per year preserved since 1983 but a continuing loss of 1,700 acres per year).

- ANJEC believes that the root cause of continuing farmland loss is well stated as:

*“Parks and Quimio (1996) found that farmland conversion to developed uses in New Jersey is driven primarily by capital gains from selling land to developers and that net farm income has no statistically significant impact on conversion. The reason for this finding is that capital gains from selling farmland to developers are so large in most cases that moderate changes in farm income do not make a difference in the decision to sell. This suggests that policies targeted at increasing farm income might have little impact on farmland preservation, at least in relatively urbanized states such as New Jersey”.*

- Clearly, reducing the value of farmland for non-agricultural purposes is the key to preserving the land base of the industry. However, exclusive reliance on purchase of development rights, without parallel controls over land value and development “potential” is a fool’s errand that will exhaust available public funding.
- The section mentions “sustainable agricultural practices” but does not describe what these are in the context of the Highlands region. Substantial information of sustainable agricultural practices is available from ATTRA-National Sustainable Agriculture Information Service ([www.attra.org](http://www.attra.org)), funded under a grant from the United States Department of Agriculture’s Rural Business-Cooperative Service (USDA-RBS). *Appendix B* includes a description of the ATTRA programs and “Applying the Principles of Sustainable Farming”, one of their many publications that the Council may find useful in defining “sustainable agriculture”.
- Although the previous section, Septic System Capacity, mentions agricultural run-off as a major contributor of nitrates, the surface water quality section mentions several potentially agriculturally related pollutants of concern (bacteria, temperature, phosphorous) and the Carbonate rock section mentions the possibility of contamination from non-point sources, this section does not acknowledge the link between agricultural land uses and surface and groundwater contamination. This should be addressed.
- In previous comment, ANJEC requested that specific water quality monitoring for agriculturally related pollutants be a part of the agricultural strategy. This has not as yet been adopted by the Council.

### **Part 4. Historic, Cultural, Archaeological and Scenic Resources**

This section should build upon the History of the Highlands Region (Ch 1, Part 2). However, the history section is quite weak and should be strengthened to include a thorough discussion of settlement history and subsequent elaborations.

- ANJEC notes that in a previous technical paper “*Historic Resources Inventory and Mapping-Interim Report (July 17, 2006)*” contained a map “*GIS Data Layer of Cultural Resources*”. We note that this effort, originally part of the Smart Growth submissions, appears to have been abandoned. The mapping would allow the development of policies and programs based on the distribution of resources similar to those applied to agricultural land or forest resources. Such an approach would allow the development of innovative strategies including the use of Heritage Corridors as applied on the Blackstone River in Massachusetts. Furthermore, a GIS data layer is essential to evaluate the presence/absence of cultural resources in other areas of concern such as riparian zones, forests or agricultural lands, ANJEC appreciates the difficulty of acquiring GIS quality locational information for cultural resources but requests that the Council make an attempt in the RMP at mapping and analysis to support program development.

#### **Mines as Special Cases.**

ANJEC commends the Council for recognizing the historic value of the mines of the region. However, their locations should be shown on a map in the RMP. We also note that, while these features are of historic significance to the region, they may also pose hazards to development, and may be sources of groundwater contamination and may provide opportunities for water supply development (Scrub Oaks Mine by MCMUA).

Thus, knowledge of their locations will be of importance to other parts of the RMP. The bulk of the listings are magnetite iron mines. There would seem to be little chance of further mining activity at these sites due to the low price of iron ore and the difficulty of extracting the materials from the hard rock geology of the Highlands. Many of these sites are very small and include “explorations”. However some are quite large and were worked well into the 20<sup>th</sup> C. Abandoned iron mines have been involved in a large number of subsidence events (Mine Hill, Chester) and, in several cases are connected with severe groundwater pollution (Ringwood).

Underground mine workings pose hazards of collapse if not properly addressed during site design and site plan review. While specific features of mines may be visible on the surface, the location and extent of underground workings is not well understood. Where such workings are extensive and are connected to the surface, a threat to groundwater quality may be assumed to exist. Extensively undermined areas are often termed “pseudo-karst” because of their similarities to karst areas, especially with regard to groundwater issues.

Water discharges from these abandoned workings are often high in dissolved iron, poor in oxygen and may be acidic. One abandoned mine is being proposed currently (MCMUA) as a water supply augmentation project (Scrub Oaks Mine, Mine Hill/Wharton) while another (Mt. Hope) has been proposed as a “pumped storage” hydro-electric facility.

Additional historic importance also surrounds some mines, for example Thomas Edison’s workings in the Ogdensburg vicinity. In all, the abandoned iron mines of the Highlands are:

- Valuable illustrations of the region’s heritage
- Potential public safety concerns
- Potential sources of groundwater contamination
- Potential sources of potable water
- May have energy production potential

#### **Recommendations:**

- The Council should consider designating the entire sample of iron mines in the Highlands region as a thematic cultural resource of regional importance.
- Iron mine sites should be considered areas of concern in the local site planning process and their presence/absence included on checklists.

- The council should add an investigation of mine discharge water quality to its science agenda

### **Zinc Mines**

Extensive working of zinc or in the Franklin/Ogdensburg area has taken place. The Sterling Hill Mine operated well in the 20<sup>th</sup> C. may be the deepest mine in the state. These mines exploited an ore body with geologically unique characteristics and contributed to the development of extraction technology.

Unique fluorescent minerals are associated with these deposits. Many of these minerals are found nowhere else in the world, and are recognized as unique resources. Today, the abandoned mine dumps support two highly visited mineral museums that are important tourist destinations in the Highlands. Collectors from all parts of the world visit these areas to collect the unique minerals and to learn about Highlands mining history. In all, the abandoned zinc mines of the Highlands are:

- Deep and highly developed, containing large amounts of groundwater.
- Valuable illustrations of geological history and geological science
- Sources of globally unique minerals
- Valuable tourist destinations
- Important elements of the heritage of the Highlands
- Extremely important in the history of their local communities.
- May be sources of groundwater contamination

Two articles on the importance of the New Jersey zinc mines are attached as Appendix C.

### **Recommendations:**

- The Council should recognize the Franklin Mining District as an historic site of regional importance.
- The Franklin Mineral Museum and the Sterling Hill Mining Museum should be considered highlands cultural resources. The council may want to consider other interpretive or museum sites a cultural resources.

### **Uranium Mines**

Only one uranium mine is located in the Highlands (BEMCO or Charlotte Mine, Byram). However, radioactive materials, including uranium, are widespread in the Highlands. In the 1980s proposals were advanced to mine these materials in Jefferson Twp.(EXXON), resulting in a local ban on extraction and a statewide 7 year moratorium on mining radioactive materials. Additionally, concerns over indoor air exposures to radon, a radio-active gas, have resulted in testing requirements and exposure standards.

There is some reason to believe that radio active materials may again be proposed to be mined in the Highlands. Calls for increased use of nuclear power to combat global warming (no CO2 emissions) and increased prices for uranium (\$93/lb in Nov. 2007) may stimulate demand in the region. In all, uranium mines in the Highlands are:

- Not an important part of the Highlands heritage
- Not plentiful
- However, radio active materials are plentiful
- Prices are increasing, stimulating demand
- Radio active materials are a major concern in air pollution and potential water pollution sources.
- Extraction of radioactive materials in the future may well be a substantial threat to the natural resources of the Highlands region

### **Recommendations:**

- The RMP should prohibit the mining or disturbance of radioactive minerals throughout the Highlands Region.
- The RMP should address radon, include existing mapping and set compliance standards for indoor air and water.

### **Mining Issues Not Addressed**

The list of abandoned mines does not take into consideration surface working of carbonate rock (quarries), gneiss and granitic rock quarries, and sand and gravel mines.

The Act contains specific provisions relating to mines, mine sites etc., existing on the date of the Act.

- **The RMP should map and list exempt mines and mine sites as defined in the Act.**

### **Subpart a. Historic, Cultural and Archaeological Resources**

- The Plan's definition of cultural resources, restricting consideration to register designated or eligible sites, is far too narrow to capture the universe of sites present in the region. Counties and individual municipalities have compiled cultural survey data that should be considered cultural resources for the region.
- A select sampling of currently recognized sites should be included as "cultural sites of regional significance" because of their importance to the history of the region, national significance or intact condition. A thematic approach could also be used: some examples include: the Morris Canal, the historic iron industry (mines, furnaces), historic transportation routes (Four rod roads, turnpikes, historic trails, railroads), Waterloo Village, historic water supply facilities.

### **Dams as Special Cases**

Dams play a crucial role in aquatic ecosystem functioning and are, along with their impoundments, often historic resources, specialized scenic resources, and recreational resources. All of these values are to be protected under the Highlands Act. The structural stability of these features is an important concern for public safety.

The Highlands contain a large number of dams. These range in scale from small farm ponds to large potable water reservoirs. To protect the public's safety, dams must be periodically inspected under NJSA 58:4-8.2. A recent report by the Office of the State Auditor reviewed the status of the Dam Inspection Program in New Jersey. This report indicates that 70% of the state's 1,713 dams are not in compliance with inspection requirements. A number of these dams are classified as "High Hazard" or "Significant Hazard" dams. From the data presented in the report, it is impossible to determine how many dams may be located in the Highlands region. However, it is clear that when non-complying dams are encountered by the N.J. D.E.P's dam safety program, renovation or breaching is often ordered. These actions may have unacceptable impacts on Highlands Resources. Additionally dams may have hydroelectric potential, providing "clean" energy for Highlands communities.

G.I.S. mapping of dams in the Highlands region, with an associated relational data base would provide the informational framework for historic review, rational decision making, environmental review, inspection processing and the establishment of funding priorities. Due to current security concerns, restricting access to these data may need to be considered.

- ANJEC recommends that the Council include a G.I.S data layer of dams in the RMP with a relational data base

### **Subpart b. Scenic Resources**

- ANJEC recommends that a scenic resource map of the "base-line" Scenic Resources Inventory be included in the RMP.

- Thus far, the RMP has not adequately addressed the overall issue of scenic protection.

**Part 5 Transportation**

This section provides a beginning point for transportation management in the region. However, a review of the Technical Paper, “Transportation System Preservation and Enhancement”, 2007, reveals a wealth of information not presented in the RMP. For example, the report indicates a considerable problem with roadway peak hour congestion at the present time.

- The RMP provides no recommendations, policies or program to deal with the existing congestion.
- Neither the technical paper nor the RMP evaluate transit capacity.
- The exclusive reliance on changing land use patterns is an inadequate response to current conditions.
- Neither the technical paper nor the RMP deal with potential noise and air pollution impacts from air system growth outside the region: re-routing from New York airport, expansion of Stewart airport or developments at Allentown-Bethlehem-Easton (ABE) airport.
- The section (p.60) dealing with agriculture’s needs is puzzling. What exactly are “safe travel routes for farmers” and how do they differ from safe travel routes for everyone else? How will designing roads and bridges “to accommodate farming equipment” be accomplished within the framework of “context sensitive design”? The development of “inter-parcel access roads” will require standards for environmental impact and a review procedure.
- ANJEC supports the concept of “Green Streets” but suggests that this general approach be more thoroughly defined with a technical manual and applied to repair and retrofit of roadways region-wide.
- ANJEC supports the use of “Context Sensitive Design” if it includes water resources protection and cultural resources protection.
- The impacts of transportation, particularly roads, are not evaluated despite the fact that temperature and TDS have been identified as problems.

**Bridges as Special Cases**

The recent collapse of a major interstate highway bridge in Minneapolis has raised concern about the safety of bridges nationally and in New Jersey. Immediately after the collapse, Governor Corzine directed the N.J. Department of Transportation to submit a report on the condition of the state’s 6,429 bridges within 45 days.

It is possible that this renewed concern with public safety statewide may lead to calls for and funding to repair or replace bridges termed “deficient” (12%) or “obsolete” (25%) statewide. While there can be little justification for not replacing or repairing dangerous or inadequate bridges, doing so can have important environmental, cultural and planning impacts on Highlands bridges. Municipalities generally do not have jurisdiction over bridges. The largest numbers of bridges in the Highlands are under the jurisdiction of counties. Bridges on state highways and the interstate system are under the jurisdiction of the NJ DOT.

Despite the lack of direct responsibility, the Highlands Council can play an important part in assuring that bridge repair and replacement projects enhance Highlands resources, local communities and respect the visual environment.

According to figures released in a Star Ledger article (August 3, 2007) Highlands counties contain both “deficient” and “obsolete” bridges. Because the figures are presented by county, it is not possible as yet to determine how many of the deficient or obsolete bridges are within the Highlands region but it is reasonable to expect that some are located in the Highlands.

In the seven Highlands counties the figures are as follows:

County	Bridges	Satisfactory	Deficient	Obsolete
Bergen	520	304	61 12%	155 30%

Hunterdon	362	229	51	14%	82	23%
Morris	478	326	47	10%	105	22%
Passaic	319	190	43	13%	86	27%
Somerset	377	266	54	14%	57	15%
Sussex	166	107	28	17%	31	19%
Warren	250	167	33	13%	50	20%

**A Coordinated Plan is Needed**

Many of the bridges within the Highlands, particularly those classified as “obsolete”, may have considerable historic or scenic value, in addition to being utilitarian components of the transportation system. Many of the bridges in the Highlands cross sensitive waterways valuable as water supplies, recreational resources, wildlife habitats and scenic areas. These values must be respected in the effort to provide a safe and efficient transportation system in the Highlands region.

The Highlands Act includes specific requirements requiring that the smart growth component consider transportation and *infrastructure investments* and transit villages (Section 11.a.(6))(emphasis added). The Act additionally requires the development of a transportation component that; “provides a plan for transportation system *preservation*, includes all federally mandated projects or programs, and recognizes smart growth strategies and principles”. (RMP p. 168)(emphasis added). Clearly bridges are major infrastructure components of the road and rail network and statewide many road bridges have been identified as deficient or obsolete.

As part of its infrastructure assessment, the Regional Management Plan prepared by the Highlands Council should map and provide information on the deficient and obsolete bridges within the Highlands area. The bridge locations should be mapped using GIS a relational data base should be provided. At a minimum, this data base should include:

- The locations of deficient and obsolete bridges
- Causes of the deficient or obsolete ratings
- Stream crossed (if applicable)
- DEP water quality classification of the stream crossed (if applicable)
- An assessment of the historic value of the structure and its surroundings
- An estimate of the costs of repair or replacement (2007 dollars).

Such information would form the basis for the rational management of bridge infrastructure under the Highlands Regional Master Plan and facilitate cooperation between state, county and local governments. Additionally, the Highlands Council should consider developing design guidelines for bridge replacement that respect the historic character, scenic values, and environment in the design and execution of projects within the Highlands area.

**The Municipal Role**

Local environmental commissions can play an important role in assuring that bridge repair or replacement respects the local environment, community character and the historic nature of the project site. Municipalities can host the recommended Context Sensitive Design co-operative public meetings between the agencies in charge of bridge work, (usually counties), NJ DEP, neighbors, and others to discuss public and community concerns early in the planning process. Such an approach has paid important dividends in Morris County and Somerset County where the scale, design, construction and execution of bridge projects have been materially improved.

Although each municipality and neighborhood will have unique concerns, some important questions for the Council may include:

What are the current objectives of the project?

- To remediate structural deficiencies?

- To address traffic safety?
- To increase road capacity?
- To increase traffic speeds?

Does the bridge maintain existing pedestrian access or provide new links to existing pedestrian routes, including trails?

Are bicycles and other non-motorized means of transport accommodated?

Are there realistic and acceptable opportunities to provide for public access to the water way?

Does the existing bridge have important design characteristics and/or historic designation?

Have restoration strategies been explored, including double bridging?

Does the site design improve the quality and management of the quantity of stormwater at the site more effectively?

Will the design be appropriate and employ appropriate materials for the scenic setting? For example:

- CoreTen steel or wood faced guardrails.
- Stone facing
- Tinted concrete
- Wooden or ornamental railings
- Appropriate color

Will construction take place according to DEP rules (at a minimum), and RMP policies including:

- Wetlands
- Stream encroachment
- T&E Species
- Historic and archaeological review (“Section 106”)

Will there be a responsible site management party available 24 hrs a day during construction?

Has stream channel impact been avoided to the maximum extent practicable?

Is there an effective soil and sediment erosion control plan?

Is the landscaping plan adequate and are native species used appropriately?

### **Conclusions**

Recent concerns with the safety of bridges statewide may give rise to increased activity in bridge repair and, in some cases, replacement statewide in general and in the Highlands in particular. The Highlands region may contain a significant number of bridges currently rated deficient or obsolete. These bridges may have important scenic, aesthetic and historic value and may be located on sensitive water bodies valuable as water supplies, recreational resources, ecological resources and scenic areas. The Highlands Act supports planning for the evaluation of infrastructure needs and the preservation of existing transportation infrastructure.

- The Highlands Regional Master Plan should map the location of deficient and obsolete bridges and provide a centralized data base to assess the causes of these ratings and estimate capital needs. The Regional Master Plan should also provide design guidance for bridges in the Highlands region for use by the NJ DOT and county road and bridge departments.

Municipalities can play an important role in assuring that bridge repair and replacement program respects the environmental, scenic, historic and recreational values at bridge replacement sites, if they have accurate information and it is provided early in the planning process. Municipal environmental commissions can host public meetings to explore community concerns and facilitate the design and execution of bridge replacement projects that respect Highlands values within the framework of the RMP.

#### **Part 6. Community Character, Subpart d. Future Land Use, (1) Land Use Capability Zone Map.**

The presentation on the development of the LUCM is still unclear and difficult to understand. The Council should produce a clear, separate document that captures the entire process rather than stating, *“Additional discussion relating to the methods and selection of the individual indicators is contained within the supporting technical reports”*.

- ANJEC wishes to call the council’s attention to the statement (p. 70) in the Conservation Zone description, *“Non-agricultural development activities will be limited in area and intensity due to infrastructure constraints and resource protection goals”*. This statement seems to contradict the later expressed clustering and “zoning by right” policies .
- ANJEC supports the addition of three sub-zones as a considerable improvement over the prior draft. However, the resources used to arrive at these distinctions should be clearly stated.
- The Lake Community Sub-Zone should include a “viewshed” protective tier. A fixed 1000’ distance will not protect scenic character. Defining these areas with the anticipated LiDAR data before adoption is recommended.

#### **Part 7. Landowner Fairness**

This section should include a discussion of trust resources and the takings issue as currently established in legal theory. Impacts on “landowner expectations” are not a legitimate issue. Recognizing that, as a matter of political expediency, the Act established a TDR program, provides for exemptions and waivers, and a special appraisal methodology is fine. However, the underlying principles of land use law still apply in the region.

### **Chapter III. Regional and Local Community Character**

Overall, this section exhibits a welcome change in style, tone and content from the previous sections. ANJEC strongly recommends that this writing style be adopted throughout the document. Indeed, this section could well be used as a first chapter in a revised format that would present chapters IV, V and VI as the RMP with the balance of the document separated into separate volumes of supporting materials. The inventory information could comprise one document. The analysis the second. The technical documents could also be compiled into a third volume. This approach would relieve the readers of attempting to digest masses of information before getting to the conformance issues and policies of the RMP. ANJEC would support such an approach.

### **Chapter IV (Goals, Policies and Objectives)**

- This chapter should begin with a clear exposition of the distinctions between Goals, Policies and Objectives as used in the RMP.

ANJEC has reviewed selected sections of this Chapter. The reviewed sections reflect some of the subject areas that ANJEC believes will be new and unfamiliar to municipalities. These include Highlands Forest Resources, Highlands Open Waters, Steep Slopes, Critical Habitats, Carbonate Rock (Karst), and Agricultural Resources. The Council should be aware that many of the concepts underlying the RMP will be difficult for municipalities to grasp during conformance.

There is a critical need for technical assistance and data transfer. Guidance documents will be needed in many areas and should be available at the outset of the conformance period.

ANJEC has reviewed the chapter and either:

- Supports (S)
- Conditionally supports (CS)
- Opposes (**O**) or
- Adds (A) a new goal, policy or objective as follows
- Does not understand (?) the Goal, Policy or Objective

Overall, ANJEC found much that it could support and continues to offer comment in the spirit of constructive criticism. Where we were in complete agreement with the item we gave a “Support” designation (S). However, in many instances, clarification or additions were required in our view. In these situations, we gave Conditional Support (CS) and provided suggestions for improvement. In some cases, the language or terminology was difficult to understand or the concept was not clearly expressed. In these situations we noted that we simply did not understand (?) the item. In some cases, specific provisions were clearly unacceptable. In these situations, we opposed the item (O) and provided a rationale for the opposition. Finally, we added several new items (A) to reflect areas not addressed.

Of particular note is our continued opposition to mandatory clustering in the Conservation areas. We join with other environmental organizations in opposing this ill conceived proposal that we believe will continue to haunt the Council due to its inherent conflict with numerous provisions of the RMP and the Act.

## **Part 1 Natural Resources**

### **Subpart a. Highlands Forest Resources**

- The introduction should expand on the values of forests to include soil stabilization, thermal regulation, evapo-transpiration, carbon cycling and sequestration, to name a few.

#### **Goal 1A: S**

Policy 1A1: S

Policy 1A2 : CS.

Add “forest eco-system integrity”

Objective 1A2a: S (completed)

Objective 1A2b: CS

ANJEC believes that se of mitigation should only be allowed under specified circumstances.

Objective 1A2c: S

**Objective 1A2d: O.**

ANJEC opposes the introduction of sewer service to the forest resource area to serve clustered development and without an adjacency requirement.

Policy 1A3: CS

ANJEC do not oppose funding the preservation of forested lands but requests that the Council review *all* references to funding priorities (which are numerous) and present a clear picture of funding priorities.

Policy 1A4: CS

See comment above

Policy 1A5: CS

ANJEC requests that the Council provide a definition of clear cutting and use of Forest Stewardship Plans rather than Forest Management Plans.

**Goal 1B: S**

Policy 1B1: CS

ANJEC requests that the Council define and explain the term “sustainable forestry”.

Objective 1B1a: CS

See comment above

**Objective 1B1b: O**

ANJEC believes that forest management Plans as presently constituted are inadequate and suggest Forest Stewardship Plans be used.

Objective 1B1c: CS

See comment above

Objective 1B1d: CS

ANJEC supports the use of agro-forestry but suggests preparation of agro-forestry education/guidance materials.

Policy 1B2: CS

ANJEC requests that the Council adopt a definition of “very-low impact residential development” for municipalities and applicants.

Objective 1B2a: CS

ANJEC supports the concept but requests that the approving authority for “an approved forest mitigation plan” be specified. ANJEC also requests that the conditions where mitigation would be allowed be specific.

Objective 1B2b: CS

See comment above.

Policy 1B3: S

Objective 1B3a: S

Objective 1B3b: S

Policy 1B4: S

Policy 1B5: S

Objective 1B5a: S

Policy 1B6: CS

ANJEC supports criteria and standards but their development must follow definition of “sustainable forestry”

**Objective 1B6a: O**

ANJEC requests use of Forest Stewardship Plans rather than Forest Management Plans.

Policy 1B7: CS

ANJEC generally opposes clear-cutting. However, if specified in a Forest Stewardship Plan we could support. Appears to conflict with Policy 1A5.

**Goal 1C: S**

New Policy: A

ANJEC requests that the Council commit to providing municipalities with forest resources and all other data necessary to implement the Goal at the inception of the conformance process.

Policy 1C1: S

Objective 1C1a: CS

ANJEC suggests adding shade trees to read, “Maintain forest cover and shade trees....”

Policy 1C2: CS

ANJEC supports development of technical guidelines but requests that mitigation be allowed only under specific circumstances.

Objective 1C2a: S (needs a verb, “develop and provide” for example)

Objective 1C2b: CS

ANJEC believes Guidelines already exist for Community Forestry Plans. Needs a verb.

**Objective 1c2c: O**

Forest management should not be conflated with shade tree protection and tree removal in developed areas. ANJEC can supply numerous shade tree ordinances. Needs a verb.

Objective 1C2d: ?

ANJEC does not understand the Objective. Is the purpose to allow wooded portions of farms to qualify for farmland assessment or some other form of tax credit?

Policy 1C3: CS

ANJEC is not opposed to tree clearing ordinances but questions the procedural complexity of this Policy.

**Objective 1C3a: O**

The Objective is unnecessary.

New Policies (A)

- Encourage afforestation and reforestation (through forest Stewardship Plans, Community Forestry Plans, or Mitigation Plans) of gaps which, if re-forested, will merge separate forest blocks.
- Encourage afforestation or re-forestation of riparian areas, wetlands buffers and other hydrologically sensitive areas through forest Stewardship Plans, Community Forestry Plans, or Mitigation Plans).
- Encourage afforestation/reforestation of highly erodible soils. Soils with shallow depth to bedrock or high seasonal water tables through all available mechanisms/

### **Subpart b. Highlands Open Waters**

Add “stewardship” to the last bullet point ...acquisition and stewardship...

Goal 1D: S

Policy 1D1: S

**Objective 1D1a: O**

ANJEC opposes the provision as being too narrow and not recognizing the historic and cultural features within the sub-watersheds.

Policy 1D2: S

Objective 1D2a: S

**Objective 1D2b: O**

ANJEC opposes the provision as being too narrow and not recognizing the historic and cultural features within the riparian area.

Policy 1D3: S

Policy 1D4: CS

ANJEC supports the use of the 300' fixed distance buffer. However, in some locations the riparian zone may extend beyond 300' primarily due to floodplain width, particularly in the lower reaches of watersheds. The buffer requirement should be 300' unless the riparian zone is wider, in which case the buffer shall be defined by the riparian zone. The Policy should also encourage the installation of wooded and grassed riparian buffers in active agricultural areas by providing technical assistance and assistance with accessing the CRP and CREP programs.

Objective 1D4a: S

Objective 1D4b: S

Objective 1D4d: S

**Objective 1D4 d: O**

ANJEC *strongly* opposes this provision because there is no requirement for showing that the normal buffer policy cannot be applied, there are no standards to evaluate the performance of the reduced buffers and there are no requirements for maintenance of the reduced buffers to assure continued functioning.

**Objective 1D4e: O**

ANJEC supports prohibition, except to protect public health and safety, or to provide for minimum practical use in the absence of any practical alternative but Objective 1D4d should be removed.

Objective 1D4f: CS

ANJEC supports the concept but the objective should specify who and under what circumstances the plan would be implemented.

Objective 1D4:?

ANJEC does not understand the Objective

Objective 1D4h: S

Policy 1D5: CS

The Policy should read "Protect the integrity of the riparian Areas through the application of RMP standards, *or more stringent local standards either currently existing or adopted under the Highlands conformance process*, during local development review and Highlands Project Review".

Objective 1D5a: S

Objective 1D5b: S

Objective 1D5c: ?

ANJEC does not understand the Objective.

Objective 1D5d: ?

ANJEC does not understand the Objective

Policy 1D6: CS

ANJEC suggests adding ...RMP or more stringent local standards currently existing or adopted as part of conformance to protect...

Objective 1D6a: CS

ANJEC suggests striking ..."that would alter"...

Objective 1D6b: S

Seems to conflict with earlier provisions

Objective 1D6c: CS

ANJEC needs to see the "low impact development best management practices" before it could support this Objective

Objective 1D6d: S

Policy 1D7: CS

ANJEC can support the Objective if Objective 1D4d is removed.

Objective 1D7a:?

ANJEC does not know what “Restrict the impact”... means.

Objective 1D7b: CS

ANJEC needs to see the “low impact development best management practices” before it could support this Objective

Objective 1D7c: CS

ANJEC supports the concept but cannot determine who shall be required.

Policy 1D8: S

Objective 1D8a: CS

ANJEC supports high priority designation but requests that the Council examine all priority statements, which are numerous, and present a clear and true priority schedule.

Objective 1D8b: ?

ANJEC wants to support the idea but does not understand the language. Private lands do not “give priority to ecological and watershed protection measures”. Additionally restoration activities on private lands should be accompanied by a conservation easement with monitoring and enforcement.

### **Subpart c. Steep Slopes**

#### **Goal 1E: S**

Policy 1E1: CS

ANJEC supports the slope category selection but notes that all current slope related mapping will need to be reprocessed using the LiDAR data. This should be done before adoption.

Objective 1E1a: CS

See above comment

Objective 1E1b: S

Objective 1E1c: S

Policy 1E2: S

Policy 1E3: S

Policy 1E4: S

Policy 1E5: S

Policy 1E6: CS

ANJEC supports on-site delineation based on 2’ contour interval for site plan applications.

Policy 1E7: S

Policy 1E8: S

Policy 1E9: CS

ANJEC needs to see the “low impact development best development practices”.

Policy 1E10: S

Policy 1E11: S

New Policy :A

- Provide municipalities with slope data prior to conformance, and any subsequent updates.

### **Subpart d. Critical Habitats**

**Goal 1F: S**

Policy 1F1: S

Policy 1F2: CS

ANJEC supports property interest or fee acquisition of critical wildlife areas as described. However, the council should review all priority statements and produce a clear and accurate schedule of priorities. Acquired properties must be accompanied by a management plan (fee) or a conservation easement with monitoring and enforcement provisions.

Policy 1F3: S

Policy 1F4: CS

ANJEC believes that any criteria developed should be specific to the species of concern.

Objective 1F4a: CS

ANJEC needs to see the “low impact development best management practices”.

Objective 1F4b: CS

ANJEC assumes this means previously disturbed habitat. If so, we support the objective.

Objective 1F4c: S

Objective 1F4d: CS

The envisioned plan should be peer reviewed by qualified persons.

Policy 1F5: S

Objective 1F5a: S

Objective 1F5b: S

Objective 1F5c: CS

Does this mean municipal conformance. If so, how is a municipality to comply?

Objective 1f5d: S

Objective 1F5c: S

Policy 1F6: S

Objective 1F6a: S

Policy 1F7: S

Policy 1F8: S

Goal 1G: S

Policy 1G1: S

Policy 1G2 : CS

ANJEC supports the concept but suggests that the statement read: ...”approved by the Council in consultation with the N.J. D.E. P Endangered and Non-Game species Program and, where migratory species are involved, the U. S. Fish and Wildlife Service.

**Subpart e. Land Preservation and Stewardship**

No comments submitted.

**Subpart f. Carbonate Rock (Karst) Topography**

ANJEC commends the council for recognizing the importance of carbonate rock geology.

**Goal 1K: S**

Policy 1K1: S

Policy 1K2: S

Policy 1K3: CS

ANJEC supports the intent but does not know what the Council means by karst features. These should be specified.

Policy 1K4: S

Objective 1K4a: CS

ANJEC notes that stormwater recharge techniques must be carefully considered on karst areas.

Objective K4b: S

Objective K4c: S  
Objective K4d: S  
New Policies (A)

- Agricultural best management practices specific to karst conditions should be applied to all preserved farmland in carbonate rock areas.
- The Council should develop educational materials for homeowners and landowner and farm operators about karst and develop an outreach program to farm operators to encourage karst specific best management practices.
- The Council should identify land uses which pose an unacceptable risk in karst areas and prohibit such uses.
- The Council, should limit the expansion of such unacceptable land uses where they currently exist.

### **Part 3. Agricultural Resources**

The introductory statement should quantify the “important economic benefits”, employment, etc. provided to the region by agriculture. The term “sustainable agriculture must be defined in narrative and in the glossary

#### **Goal 3A: S**

ANJEC supports the Goal and commends the Council for stating that the protection and enhancement of the *agricultural resources* is a goal.

Policy 3A1: S  
Policy 3A2: CS

ANJEC supports the keeping of this inventory and requests that conversion figures be kept and produced on an annual basis.

Policy 3A3: CS

ANJEC notes that this broad definition will involve some types of soils, previously commented on, where agricultural operations may conflict with other Goals of the RMP. Specifically, we are concerned with extremely wet soils and modified agricultural wetlands such as located in the Great Meadows and Walkill areas.

Policy 3A4: S  
Policy 3A5 CS

ANJEC supports the preservation of farmland. However, the Council should review all the priority setting statements and produce a clear and accurate list of actual priorities.

#### **Policy 3A6: O**

ANJEC supports planning to minimize agricultural conflicts but notes that many of these conflicts arise from improper operations not subject to BMPs. Secondly, ANJEC does not support the clustering provisions as currently developed.

Objective 3A6a: O

ANJEC supports limiting non-agricultural uses in the zone but the allowable uses implied by the current language are too broad. ANJEC opposes the cluster provisions as currently developed.

Policy 3A7: CS

ANJEC supports the concept but the Council must define what it means by “sustainable agriculture”.

Objective 3A7a:?

ANJEC does not understand how this differs from Policy 3A7.

Policy 3A8: S

ANJEC supports the encouragement of agro-forestry but requests that the Council prepare guidance for landowners and municipalities with open space.

Policy 3A9: CS

ANJEC supports improved forest management but suggests use of Forest Stewardship Plans rather than Forest Management Plans.

Objective 3A9a: S

Policy 3A10: S

Objective 3A10a: S

Objective 3A10b: S

**Objective 3A10c: O**

ANJEC opposes the mandatory clustering provisions as currently developed. Numerous comments from ANJEC and others have been submitted on this subject.

**Objective 3A10d: O**

ANJEC supports the use of conservation easement but limiting the potential easement holder to municipalities and the Council is too narrow. Furthermore, municipalities have a poor track record of monitoring and enforcing simple conservation easements. The type of easement required to meet the objectives of the RMP would, by necessity, be very complex.

Policy 3A11: S

Policy 3A12: S

Policy 3A13: ?

ANJEC does not understand the use of the term “credits”. If the intent is to allow expenses incurred in these defined conservation activities and grants to count toward meeting the financial criteria of farmland assessment, ANJEC supports the Policy.

Policy 3A14: S

**Goal 3B: ?**

ANJEC does not understand exactly what is meant by “agricultural viability” and is more comfortable with the public preserving “agricultural resources” (e.g. soils). However, we recognize the direction of the Act on this matter.

Policy 3B1: CS

ANJEC suggests that such leases from public owners require a Resource Management System Plan.

Policy 3B2: ?

ANJEC does not understand the scope of this Policy nor can it understand why agriculture’s health care, banking practices, housing and labor deserve “innovative practices that differ from the general population.

Policy 3B3: S

Policy 3B4: S

Policy 3B5: S

Goal 3C: S

**Policy 3C1: O**

ANJEC does not support mandatory cluster development provisions or clustering in the zone as presently developed.

**Policy 3C2: O**

ANJEC does not support mandatory development provisions or clustering in the zone as presently developed.

**Goal 3D: S**

Policy 3D1: CS

ANJEC supports the concept of encouraging “appropriate alternative and innovative wastewater treatment systems”, however it cautions the Council that such systems often do not provide the benefits claimed. The Pinelands Commission’s experience in this area should be consulted. Prior to approval, alternative systems should be thoroughly evaluated and peer reviewed.

Policy 3D2: CS

The Policy should specifically mention organic farming techniques.

Policy 3D3: S

### **Goal 3E: S**

Policy 3E1: CS

Farmland Preservation Plans required as part of conformance should recognize agriculture’s potential impacts on water quality.

Policy 3E2: S

Policy 3E3: S

ANJEC notes that this is a requirement of the Act.

New Policies (A)

- Assure that agricultural activities in carbonate rock areas do not pose risks to groundwater through the use of karst specific BMPs.
- Develop an outreach and education program on appropriate agricultural practices in karst areas.

## **Chapter VI. Implementation**

### **Part I Regional Master Plan Conformance, Consistency and Coordination**

#### **Subpart a. Plan Conformance**

Plan Conformance Guidelines:

- ANJEC supports the production and distribution of Plan Conformance Guidelines as described on p. 288, but urges the Council to complete this task before adoption so municipalities will have an accurate understanding of the requirements.
- We gather from the description that the intended document differs considerably from the Draft Plan Conformance Guidelines of January 2007, in that it will include a *matrix* outlining all “**immediate mandatory elements, the long term mandatory elements, and the discretionary elements.**” The meanings of these terms should be discussed in this section and defined in the glossary.
- ANJEC understands the need to define these categories. However, the existence of the terms raises a question concerning the granting of conformance status. Is it the Council’s intention that there will there be “conditional” conformance pending completion of “long term mandatory elements”? ANJEC urges the Council to grant conformance status in a final manner wherever feasible without lingering requirements requiring extensive follow up. Maintaining institutional memory at both the Council and the municipality will prove difficult in these situations.
- If it is the Council’s intention to grant some sort of “conditional” conformance, the applicability of the benefits, and funding recapture provisions for non-performance should be clearly specified.

### **Planning and Technical Assistance**

- ANJEC supports the provision of planning and technical assistance but cautions that care must be taken to maintain a regional focus in reducing data to the municipal level.
- ANJEC recognizes that map adjustments will be necessary to bring data to current conditions but is extremely concerned about large scale map adjustments that could undermine the science-based fundamental mapping. Furthermore, the Council will need firm guidance concerning what forms of adjustments it will permit during conformance. The Council should adopt specific policies regarding map adjustments during conformance. This seems to have been addressed in **Subpart b. RMP Updates and Map Adjustments**
- The amount of funding available and procedures for obtaining funding should be clearly specified in the Plan Conformance Guidelines.

### **Municipal Environmental Commissions**

Municipal environmental commissions will play an important role in conformance and implementation of the RMP. Commissions may be established at the municipal level under N.J.S.A. 40:56A.

Under the statute, (40:56A-2), Powers of Commissions:

- Shall have the power to conduct research into the use and possible use of the open land areas of the municipality
- May coordinate the activities of unofficial bodies organized for similar purposes
- May advertise, prepare print and distribute books, maps, charts, plans and pamphlets which in its judgment it deems necessary for its purposes.
- Shall keep an index of all open areas, publicly or privately owned, including open marshland, swamps and other wetlands, in order to obtain information on the proper use of such areas
- May, from time to time, recommend to the planning board, or if none, to the mayor and governing body of the municipality plans and programs for inclusion in a municipal master plan and the development and use of such areas.

Under 40:56A-3, Acquisitions by commissions, commissions may:

- ....with the approval of the governing body, acquire property both real and personal, in the name of the municipality by gift, purchase, grant, bequest, devise or lease for any of its purposes and shall administer the same for such purposes subject to the terms of the conveyance or gift. This includes land acquisitions in fee, partial interests including development rights, easements, covenants including contractual rights and revertsers on “land and water areas in the municipality”.

Under 40:56A-4 commissions are required to keep meeting records and to make an annual report to the governing body.

Under 40:56A-6, an environmental commission “shall have the power to study and make recommendations” concerning:

- open space preservation
- water resource management
- air pollution control
- solid waste management
- noise control
- soil and landscape protection
- environmental appearance
- marine resources

- protection of flora and fauna.

Under 40:56A-8 commissions can be established jointly among two or more municipalities

Under the Municipal Land Use Law (40:55-D-27), commissions who have “prepared and submitted to the planning board and to the board of adjustment an index of the natural resources of the municipality, the planning board or board of adjustment shall make available to the environmental commission an informational copy of every application for development submitted to either board”. These provisions have been commonly interpreted to authorize the preparation of ERIs and to trigger (on an optional basis) a review of development applications by the commission.

ANJEC’s data indicate that, within the Highlands Region, there are 19 highlands municipalities(22%) that do not have environmental commissions.

These are:

**Morris County:**

- Netcong : Planning Area
- Morris Plains: Planning Area
- Boonton Town: Planning Area
- Riverdale Borough: Planning Area
- Butler: Planning Area
- Victory Gardens: Planning Area
- Mt. Arlington: Partial
- Rockaway: Partial
- Wharton: Planning Area

**Sussex County**

- Franklin Township: Planning Area
- Hardyston: Partial
- Ogdensburg: Partial

**Warren County**

- Alpha: Planning Area
- Oxford Twp.: Partial
- Phillipsburg: Planning Area
- Washington Borough (?): Planning Area

**Passaic County**

- Wanaque: Partial

**Hunterdon County**

- Glen Gardner: All Preservation Area
- Milford: Planning

Thus, all of the functions of environmental commissions in these areas are being performed by others or are not being performed as separate, identifiable functions.

It is important to note that only one municipality, Glen Gardner Borough in Hunterdon County, is wholly within the Preservation Area. Many of the municipalities that lack commissions are smaller, more densely populated areas tied closely to a surrounding township. These so called “Donut Holes” have the potential to negatively impact regional resources such as surface and ground water flowing from their jurisdictions.

**Many of these are within the Existing Community Zones of the RMP.**

**Recommendations**

- **The Council should mandate that all municipalities in the Highlands Region form an environmental commission.**
- **The Council should consider providing technical assistance and funding for the creation of new municipal environmental commissions and for the training of new commissioners and periodic education of sitting commissioners.**
- **The Council should require the preparation of digital municipal ERIs incorporating highlands data and provide funding, minimum contents, standards and highlands digital data.**
- **The Council should require the adoption of the ERI as an element of the municipal master plan.**
- **The Council should require an environmental commission review of any project submitted to the Council as a condition of completeness.**
- **The Council should provide funding and training for municipal environmental commissioners to assure a basic level of literacy in environmental analysis and the use of GIS for environmental planning.**

#### **County Environmental Commissions**

It is currently unclear what role county environmental commissions might play in plan implementation. However, county environmental commissions could play an important role. County environmental commissions are not governed by the statute that established municipal commissions but rather can be created by a resolution of the County Freeholders. Thus, a county commission could be assigned roles and powers not available to the municipalities but desired by the Council. Counties may be viewed as more regional in focus and could play an important role in implementation at a larger scale than the municipality but smaller than the Highlands Planning Region.

ANJEC's data indicate that, within the Highlands Region, six of the seven counties (85%) do not have environmental commissions. Only one county (Warren) has a county environmental commission.

#### **Recommendations**

- **The Council should explore the creation of County Environmental Commissions, focused on regional issues of extra municipal scale.**
- **The Council should prepare a minimum list of required powers and duties for the county environmental commissions.**
- **The Council should consider providing technical assistance and funding for the creation of county environmental commissions and for the training of new commissioners and periodic education of sitting commissioners.**
- **The Council should require the preparation of digital county wide ERIs accessible to municipalities that incorporate highlands data and provide funding, standards, minimum contents, and highlands digital data.**

- **The Council should require a county environmental commission review of any project with extra-municipal impacts, incorporating the municipal environmental commission report from the host municipality, to be submitted to the Council as a condition of completeness.**

### **Procedures for Municipal and County Plan Conformance**

Overall, the procedures outlined (p289) appear to be biased toward more, rather than less, public participation. ANJEC has a long history of encouraging effective public participation and, in the case of the Highlands, we continue this approach. However, we caution the Council that, in some circumstances, municipal officials will feel too exposed to public pressure to participate effectively or at all in the conformance process. We recommend that the Council carefully review the process framework with a regard to creating a structure, which, in its judgment, will produce maximum conformance in the region.

ANJEC is particularly supportive of encouraging joint processes among municipalities. This is a wise idea since many of the issues relate to HUC 14 areas that are rarely controlled exclusively by individual municipalities. In some cases where such cooperation would seem logical municipalities have had long term rivalries. Their separate existences are due to these rivalries. In these circumstances, joint efforts will prove problematic and should not be seriously entertained by the Council.

ANJEC has a concern about the “immediate mandatory items” that “the municipality must adopt by reference” (p. 290). It is possible and allowable under the Act that a municipality may want to introduce more stringent provisions than those provided for in the RMP. Some municipalities may already have local planning and regulation that is more protective of the environment than the provisions of the RMP. In these cases, adopting by reference could prove counter productive to achieving the goals of the Act. In addition, we request that the Council clarify the impact of extending the legal shield and other benefits of conformance where municipalities have demonstrated that they wish to employ more stringent policies. ANJEC believes that this option is not clearly understood at present and municipalities are, to some extent, fearful of taking this approach. It should be the Council’s position to encourage the most effective protection possible.

The language on designation of centers, cores and nodes raises the larger issue of the relationship of the RMP to the SDRP. Despite the execution of a MOU between the two agencies, there is widespread confusion about the relationship between the two plans.

While some of the expressed anxiety is disingenuous, there are legitimate concerns that remain unanswered. For example, in a Feb. 13 letter to the Council, Harding Township, a Planning Area municipality requested:

*“The RMP should contain an analysis of the extent to which it may be consistent and or inconsistent with the New Jersey State Development and Redevelopment Plan. In particular, the RMP needs to reconcile why areas designated by the State Planning commission within Planning Area 5 (that are not designated “centers”) have been places within the Existing Community zone.”*

The Council should more clearly articulate the relationship between the SDRP and the RMP.

### **Highlands Council Review, Evaluation and Decision Process**

ANJEC commends the Council for noting that the composition of the petition review committee may change to avoid a conflict of interest. ANJEC remains concerned that approvals with conditions will linger without attention. We suggest that the Council require a binding agreement specifying the schedule and consequences of not meeting the requirements.

### **Grant Programs**

The section on the grant programs is clear and understandable.

### **Immediate Mandatory Elements of Conformance Approval Long-Term Mandatory Elements of Conformance Approval**

### **Discretionary Elements of Conformance Approval**

ANJEC is concerned that it is not currently able to review the mandatory elements and the discretionary elements of conformance at this time. We understand that these will be presented in the Plan conformance Guidelines. We recognize that the Long Term mandatory requirements may be situational. Municipalities need to know what all these may be at the earliest possible time. Release of the elements, prior to the full development of the Guidelines may prove useful.

### **Compliance Component**

One question that has been repeatedly asked of ANJEC is if conformance is voluntary (Planning Area), can a municipality voluntarily “de-conform”. This should be clarified.

Respectfully Submitted  
David Peifer  
Highlands Project Director  
Association of New Jersey Environmental Commissions  
Feb. 28, 2008