



JON S. CORZINE  
Governor

**State of New Jersey**  
Highlands Water Protection and Planning Council  
100 North Road (Route 513)  
Chester, New Jersey 07930-2322  
(908) 879-6737  
(908) 879-4205 (fax)  
www.highlands.state.nj.us



JOHN R. WEINGART  
Chairman

EILEEN SWAN  
Executive Director

**MEETING AGENDA**  
*Thursday, June 5, 2008 - 10:00 a.m.*

1. CALL TO ORDER
2. ROLL CALL
3. OPEN PUBLIC MEETINGS ACT
4. PLEDGE OF ALLEGIANCE
5. APPROVAL OF MINUTES – May 22, 2008
6. CHAIRMAN'S REPORT (and Council Member Reports)
7. EXECUTIVE DIRECTOR'S REPORT
8. COMMITTEE REPORTS
  - a. TDR Committee – Council Member Whitenack
9. CONSIDERATION OF RESOLUTION – *Approval of Contract for Printing Services for the Regional Master Plan - (voting matter with public comment)*
10. CONSIDERATION OF RESOLUTION – *Approval of Certain Planning Assistance Grants - (voting matter with public comment)*
11. REGIONAL MASTER PLAN DISCUSSION
  - a. Carbonate Rock Program
  - b. Lake Management Program
  - c. Land Preservation Program
  - d. Wastewater System Maintenance Program
  - e. Land Use Capability Zone Map Update
  - f. Smart Growth and Community Design Handbook
  - g. TDR Program
  - h. Regional Build Out - Preliminary Results
  - i. Redevelopment and WQMP Procedures
12. PUBLIC COMMENTS
13. EXECUTIVE SESSION (if deemed necessary)
14. ADJOURN

NEW JERSEY HIGHLANDS WATER PROTECTION  
AND PLANNING COUNCIL  
MINUTES OF THE MEETING OF June 5, 2008

**PRESENT**

JOHN WEINGART	)	CHAIRMAN
TRACY CARLUCCIO	)	COUNCIL MEMBERS
MIMI LETTS	)	
JACK SCHRIER	)	
TIM DILLINGHAM	)	
JANICE KOVACH	)	
SCOTT WHITENACK	)	
GLEN VETRANO	)	
KURT ALSTED	)	
ERIK PETERSON	)	
BILL COGGER	)	
DEBBIE PASQUARELLI	)	
ELIZABETH CALABRESE	)	
TAHESHA WAY	)	

**CALL TO ORDER**

The Chairman of the Council, John Weingart, called the 70<sup>th</sup> meeting of the New Jersey Highlands Water Protection and Planning Council to order at 10:14 am.

**ROLL CALL**

The members introduced themselves.

**OPEN PUBLIC MEETINGS ACT**

Chairman Weingart announced that the meeting was called in accordance with the Open Public meetings Act, N.J.S.A. 10:4-6 and that the Highlands Council had sent written notice of the time, date, and location of this meeting to pertinent newspapers or circulation throughout the State and posted on the Highlands Council website.

**PLEDGE OF ALLEGIANCE** was then recited.

ERIK PETERSON JOINED VIA TELECONFERENCE AND ANNOUNCED HE WILL BE ARRIVING SHORTLY.

Ms. Swan noted that Ms. Pasquarelli was going to be late to the meeting as well.

**APPROVAL OF MINUTES OF May 15, 2008**

*Mr. Schrier introduced the motion to approve the minutes. Mr. Cogger seconded the motion. Ms. Way, Mr. Vetrano, and Mr. Dillingham abstained. Ms. Pasquarelli was absent. All other members present voted to approve. The minutes were APPROVED.*

Mr. Shope handed in some language that he wanted on the record in reference to his comments at the meeting of May 22, 2008. His submission is attached to these minutes of June 5, 2008.

## **CHAIRMAN'S REPORT**

Chairman Weingart announced that a meeting was held with Governor Corzine in which he and Ms. Swan briefed the Governor on the status of the RMP, the schedule for release, and also reviewed some of the items on today's agenda. Governor Corzine seemed supportive of the efforts of the staff and the Council.

Mr. Schrier brought attention to an article in the NJ State League of Municipalities written by Eileen Swan and how it discussed incentives for municipalities to conform to the RMP. He explained how Ms. Swan and Mr. Borden have been working with municipalities and encouraging them to conform with the plan – highlighting its benefits.

## **EXECUTIVE DIRECTOR'S REPORT**

Eileen Swan discussed recent rule making including DEP amendments to the WQMPs rules to update the wastewater management plan requirements and to encourage counties to do the WMP planning for willing municipalities, the WMP changes included a septic density threshold of 2mg/L. There were also amendments to Category One rules including amendments to the Surface Water Quality Rules to upgrade several Highlands waters as Category One. On May 19<sup>th</sup> there was an official notice that NJDEP has revised and updated the Landscape Maps of Habitat for Endangered, Threatened and Other Priority Wildlife. The current version, Version 2.0 of the Landscape Maps is being replaced with the Highlands Region Version 3.0.

Ms. Swan listed meetings that have taken place including a meeting with Franklin Borough (Sussex County) involving a brief overview of the RMP, a May 28<sup>th</sup> meeting with Senator Smith, a May 28<sup>th</sup> New Jersey Conservation Foundation Policy Board meeting, a May 30<sup>th</sup> meeting with PSEG regarding their application for an exemption for lines to upgrade the system and also permit needs, and lastly a May 30<sup>th</sup> meeting with Mt. Arlington about map updates and adjustments.

Chairman Weingart also mentioned that Governor Corzine acknowledged the need for more funding for acquisition in order to compensate landowners, and the need for funding for staff.

**MS. PASQUARELLI JOINED THE MEETING.**

Mr. Alstede questioned vacancies and reappointments.

Chairman Weingart stated that this was discussed with Governor Corzine and that most likely new members will be appointed after adoption in the fall.

## **COMMITTEE REPORTS**

Chairman Weingart noted that there was a written document with a summary of the TDR Committee report.

TDR Committee Chair Mr. Whitenack reported that the committee met and finalized the process of determining the highlands development credits, which is quite complicated. He thanked the staff, Jeff LeJava, and the consultants for all of their work regarding TDR. Work on establishing initial value had also been completed.

**MR. PETERSON JOINED THE MEETING.**

**CONSIDERATION OF RESOLUTION – *Approval of Contract for Printing Services for the Regional Master Plan***

Ms. Swan introduced the motion for approval of the contract for printing services for the RMP. She explained that after taking various bids from different firms, a printing firm was selected based on lowest bid and the expertise to handle the job. The total cost, \$27,560 (not to exceed this amount), includes a week for possible changes and will be for 1,000 copies on 100% recycled paper. Sufficient funds had not been allocated but there are additional funds available in the budget to cover the cost. Ms. Swan had conferred with Treasurer and Budget and Finance Chair Bill Cogger..

*Mr. Schrier moved the motion to approve the resolution. Ms. Letts seconded the motion. All present voted in favor. The resolution was APPROVED.*

**CONSIDERATION OF RESOLUTION – *Approval of Certain Planning Assistance Grants***

Ms. Swan introduced the motion for Initial Assessment grants in the amount not to exceed \$15,000 each for Bedminster and Ringwood. She explained that both municipalities received grants for COAH, Ringwood also received an MP3 grant, the latter grant deliverables are fully completed and upon submission of the final receipts grant will be paid out in full.*Mr. Schrier moved the motion to approve the resolution. Mr. Vetrano seconded the motion. All present voted in favor. The resolution was APPROVED.*

**REGIONAL MASTER PLAN DISCUSSION**

Chairman Weingart explained the schedule for the final RMP. All changes or revisions will be reviewed by the end of the June 12<sup>th</sup> meeting. June 26<sup>th</sup> he anticipates the Council should view and consider any changes the Council members would like to make to the RMP. Then the staff would revise the document to reflect any policy changes decided on by the Council. July 10<sup>th</sup> the Council will be presented with a full draft of the plan which incorporates all of the changes. Then on July 17<sup>th</sup> the Council would vote on the final plan.

Mr. Dillingham questioned the timing for the availability of documents. Chairman Weingart explained that the staff will draft versions of the Chapters over the next few weeks for the Council members to review. Mr. Dillingham expressed concern about having significant time to review the plan. Chairman Weingart and Ms. Swan noted that the Council will be receiving sections of the plan to review and should receive a draft of the entire plan by July 10<sup>th</sup>. Chairman Weingart said that Ms. Swan would provide a draft schedule of what would be discussed at future meetings up till adoption. Ms. Swan emphasized that the schedule is subject to change but that it would be sent to Council members and posted for the public.

Ms. Swan explained that the staff hopes to provide an unedited rough draft of the plan in sections prior to July 10<sup>th</sup>. This had been planned in order to make the process easier for members than it was in November for the Final Draft.

Mr. Alstede questioned when the map with the multiple overlays will be available. Ms. Swan stated that it is on the agenda for the June 26<sup>th</sup> meeting so the Council will be able to review it.

**A. Carbonate Rock Program**

Ms. Swan began her presentation with a review of the changes to the Carbonate Rock Program. She noted that this Program was amended to reflect changes made to the respective GPOs. There was clarification that karst is not strictly a surface condition and the functions and values of karst were also noted. New objectives were added for when specific karst features are identified, for instance prohibiting new uses that would constitute unacceptable risk and prioritizing upgrades or remedial actions for existing high risk land uses and facilities.

### **B. Lake Management Program**

The changes to the Lake Management Program were then described. Text was added to note the distinction in management objectives between developed lake areas in the Lake Community Sub-Zone and undeveloped lake areas. New standards were also added in response to public comments. These included permitting and encouraging the control and removal of algae and invasive aquatic weeds in the Lake Community Sub-Zone and encouraging the creation of a vegetated filter strip along the shoreline in areas where the shorelines have been hardscaped. It will also be required that septic systems and cesspools on small lots in close proximity to lakes be replaced and upgraded wherever feasible and cost-effective and that community wastewater treatments be utilized, when feasible, wherever the existing density of septic systems is known to be significantly contributing to lake pollution. (These community based systems shall not provide additional development capacity except for exempt lots or for areas that are otherwise permitted to have wastewater service.)

Ms. Letts asked for clarification that these policies were only for conforming municipalities. Ms. Swan confirmed that these will be for conforming municipalities.

### **C. Land Preservation Program**

Ms. Swan then presented the changes to the Land Preservation and Stewardship Program. This program was updated to reflect changes made to the respective GPOs and a cross-reference to the Historic, Cultural, Archaeological and Scenic Program was added since historic preservation can be an important element of land preservation. The Establishment of Land Preservation Priorities was amended to include a Special Environmental Zone in response to Section 12A of the Act. The Establishment of New/Alternative/Innovative Land Preservation Programs was also amended to include a representative list of programs and options to be examined for appropriateness in the region. Secondly, the Establishment of Dedicated Sources of Funding was amended to include a more extensive list of possible future dedicated funding sources for land preservation and stewardship. Lastly, the Establishment of Land Preservation Priorities was amended to include the Special Environmental Zone in accordance with the Highlands Act, section 12a.

Ms. Swan presented a table which summarized the amount of preserved lands and lands considered a priority for preservation in the Preservation Area.

The next slide presented showed a map with Special Environmental Zone and Preservation Area preserved Open Space.

### **D. Wastewater System Maintenance Program**

The clarifications and changes to the Wastewater System Maintenance Program were then outlined. Public information is required for all septic systems and mandatory inspection and maintenance is required for septic systems with the highest potential for pollution problems. In regards to upgrading septic systems, there was language added to clarify that the use of community systems should not create harmful effects, such as loss of water availability.

#### **E. Land Use Capability Zone Map Updates**

Ms. Swan continued her presentation reviewing the updates to the land use capability map. The proposed updates regarding preserved State and Federal wildlife lands, in response from public comment include a new Wildlife Management Sub-Zone including Federal Wildlife Refuges and State Wildlife Management Areas. The Protection Zone policies would apply in the Wildlife Management Sub-Zone. Ms. Swan explained that the last step of the model to create the zones is the step to recognize these areas. She then presented the totals for both the Federal Wildlife Refuges and the State Wildlife Management Areas with a supporting map. Staff set up large maps for the public to review. Ms. Swan explained that these changes simply clarify areas that are already protected.

Mr. Dillingham expressed concern that despite the fact that these areas are protected and restricted, there is the possibility of these lands to be transferred and possibly developed. Mr. Schrier stated that this is unlikely to occur as it is a lengthy and difficult process. Mr. Dillingham explained his experience with similar situations. Mr. Schrier stated that the final RMP will help to further protect these lands from such transfers. Mr. Dillingham explained that he would like there to be supporting language addressing these areas and their protection in perpetuity.

Mr. LeJava stated that language can be added in to the RMP to clarify that the Council expects these lands to remain protected in perpetuity consistent with enabling language for the respective Federal and State wildlife areas.

There was discussion on the limitations of these zones and whether there will be a process for applying for development such as campgrounds, birdblinds, etc. Mr. Schrier stated that the State already has regulations in place for these types of development. Mr. LeJava recommended that there be language regarding the fact that development only be consistent with the Federal and State laws that established these areas..

#### **F. Smart Growth and Community Design Handbook**

The next section of Ms. Swan's presentation described the changes to the Smart Growth and Community Design Handbook Program. The "Smart Growth Manual" and "Community Development Design Guidebook" were combined into one handbook and renamed "Smart Growth and Community Design Handbook".

#### **G. TDR Program**

Changes within the TDR Program which were discussed at the TDR Committee meetings were then outlined. Language was added to clarify which parcels in what zones may be eligible to submit an application for an HDC determination. Regarding Non-Residential Allocation Method, the following was added: method considers the size of parcel, zoning, and land use

regulations applicable to the parcel as of November 2005, and the underlying land values of different types of non-residential development to determine allocation of HDCs.

A section of this program was revised concerning Receiving Zone eligibility so that it will be consistent with the revised GPOs and to state that municipalities outside of the Highlands Region and non-conforming municipalities must receive Plan Endorsement in accordance with State Planning commission guidelines consistent with the State TDR Bill before a Receiving Zone may be established. Lastly, a new section was added regarding the Receiving Zone designation process which indicates that establishing a Receiving Zone is voluntary and triggered only by municipal action and subject to the resource protections of the RMP and a capacity analysis.

Ms. Swan noted that a GIS study was done on Receiving areas, and that is being refined and will be presented to the Council at a future meeting.

Ms. Letts asked about receiving zones outside of the Highlands. Ms. Swan stated that it will be recommended in the final RMP but that the Bill has not yet been considered out of Committee..

Ms. Carluccio asked, regarding eligibility in the lower intensity areas, does the Council see this being connected only to existing infrastructure. Mr. LeJava stated that it did involve septics but it will need to consistent with all other policies of the plan. Ms. Carluccio expressed concerns about receiving zones on septic systems and the difficulties regarding this possibility. She suggested the addition of “only where infrastructure exists”. Ms. Swan explained that this policy is written this way to encourage TDR, but all TDR areas will have to go through Council approval. Ms. Carluccio questioned whether areas can be considered for receiving zones even if they exist in a current deficit area. Ms. Swan explained that receiving zones cannot be put into deficit areas unless it can be shown that the deficit has been corrected.

Mr. Dillingham asked for language clarification that capacity is examined before designating an area.

Mr. LeJava clarified that the TDR receiving areas will be reviewed at the next meeting. Mr. Alstede asked for the Council to be shown the calculation for credits. There was discussion about the allocation method. Mr. Alstede asked for real life examples of how these policies will work. The Council discussed how to best show these examples and explain to the Council how the allocation method works. Ms. Swan said staff will put the matter on an agenda before adoption..

#### **H. Regional Build Out – Preliminary Results**

Ms. Swan continued her presentation by clarifying that Section 11(a) of the Highlands Act doesn't require a build out analysis but mandates that the Plan include a resource assessment to determine the amount of sustainable development the area can sustain while protecting the resource values and a smart growth component based on the resource assessment.. The model is also necessary for Plan Endorsement which is required. She explained how the Build Out Model provides estimates of the ultimate ability of a land area to support new development based on existing conditions, regulatory constraints and opportunities, as well as various assumptions regarding the relationship of available land and existing development to infrastructure and

environmental resources. The model is a management tool that uses spatial and technical data to examine potential development scenarios that may occur as a result of implementation of the RMP. She emphasized that this is a regional model and that local numbers as a result are not the same as a local build out. That would be the next step using the regional model.

Ms. Swan described the Highlands Build Out Model as being a GIS-based regional model that estimates the full build out of developable land based on RMP policies of environmental constraints, water availability, and wastewater utility capacity. Potential development lands are identified based on municipal zoning as of 2005 and undeveloped or underdeveloped parcels as of 2007 (excluding any preserved lands). Potential build out impacts from Highlands Act exemptions, redevelopment areas or TDR receiving zones will be covered through local build out during Plan Conformance and not under this report. Based on this model, there approximately 230,000 acres of developmental lands (123,000 acres in the Planning Area and 106,000 acres in the Preservation Area).

Ms. Swan explained that the voluntary nature of the Highlands Act for the Planning area triggered the need to develop multiple build out scenarios. The three primary scenarios are: an analysis assuming no Highlands Act, implementation of the Highlands Act only in the Preservation Area, and full implementation of the Act. She then described the details of the three different scenarios and how they were assessed, presenting a table outlining the three scenarios within the Preservation and Planning Areas. She presented a table giving a summary of the different types of developments which may occur as well as the wastewater and water constraints that exist for all three build out scenarios. The final table showed a summary of Highlands Build out regarding environmental impacts, additional impervious surface and water and waste demand.. Build out will be constrained by both the wastewater utility and water availability constraints.

Wastewater Capacity was then outlined regarding the 42 Highlands Domestic Sewerage Facilities (HDSF) within each of the three scenarios (Without Highlands, Preservation Area only conformance, and 100% RMP Conformance). The current capacity for those 42 facilities, currently shows that 8 of those facilities have no permitted capacity available and continue to represent an inability to serve additional capacity demands within the three scenarios. Under the Without Highlands Act and the Preservation only conformance scenarios a total of 11 HDSFs would exceed available capacity; while under 100% conformance 10 would exceed capacity. The projected demand within region-wide wastewater utilities under the three scenarios was described, showing approximately 3.5 MGD needed Without the Highlands Act and approximately 1.1 MGD under 100% RMP Conformance.

Ms. Swan stated that all three scenarios would generate water demands that exceed net or conditional water availability in a number of subwatersheds and therefore water availability will be a constraint on achieving full build out. Under Without the Highlands Act 71 subwatersheds would have insufficient net or conditional water availability and under the 100% RMP Conformance scenario 5 subwatersheds would have insufficient net or conditional water availability. Therefore, land based development within such watersheds may only reach full build out if conditions for water availability have been met.

Sustainable Capacity was then described regarding both water availability and wastewater capacity. A figure was shown which depicted where there were areas that have both available sewerage capacity as well as HUC14 subwatersheds with some available water, in order to visualize potential growth opportunities.

Ms. Swan then discussed the discretionary growth policy as the smart growth component within the RMP which allows municipalities to have additional growth, if they desire, after an examination of infrastructure capacity and resource protections. The most significant result is the approximately 111,000 jobs on only 1,400 acres of impervious surface, which represents 3 times the current jobs per acre density as compared to without the Highlands Act growth patterns. While this scenario had less impervious cover than the trend of “sprawl” it still showed constraints for water availability and wastewater capacity.

Within the key findings, it was found that under the Without the Highlands Act scenario, significant conflicts with water availability and wastewater utility capacity will occur (27% of projected water availability and 15% of wastewater utility capacity would be exceeded) and limit growth potential. Even with 100% RMP implementation, water availability and wastewater capacity will limit growth potential in some areas; although the negative effects are significantly reduced under 100% conformance (2% of water availability and 11% of wastewater capacity will constrain potential development). It was found that much of the existing non-residential zoning is in environmentally constrained areas outside of existing water and sewer service areas and in the future is unlikely to occur and doesn't reflect smart growth policies.

Ms. Swan outlined the next steps regarding Regional Build Out. She explained that refinement of this model will happen through local build out analysis and that it will include updated information through the RMP Update Process. Support for local build out will come from the Council staff in providing the GIS model as a basis for local build out and the Council will be providing grants and technical assistance. With Council's approval, the technical report will be made available to the public on June 12<sup>th</sup>, 2008 on the Council's website.

Ms. Swan credited the hard work by staff but in particular by Chris Danis and Carl Figueiredo.

Mr. Dillingham pointed out that the numbers that show that even under 100% RMP Conformance there will be an effect on the deficits, perhaps there needs to be adjustments to the RMP regarding where growth should happen.

Both Chairman Weingart and Ms. Swan clarified that full conformance will not allow full build out due to these constraints and current conditions. Mr. Dillingham said that it should be made clear what the issues are relating to unsustainable growth.. Mr. Schrier stated support for Mr. Dillingham's comment and added that this information should be dispersed and will help municipalities in deciding to conform. Mr. Cogger explained that COAH will be doing additional buildout analysis and that the Highlands Council should be asking for access to that data.

Ms. Letts asked for clarification on the research on the water and wastewater capacities. Ms. Danis explained how the capacity analyses were completed and where the information was obtained. Dr. Van Abs then addressed the water capacities and the data involved.

Ms. Carluccio questioned the factors that were not taken into account within the figures (for example, exemptions) and how much they would change those figures. Ms. Danis explained that the report will contain a narrative regarding exemptions and redevelopment. However, it will not be forecasted in exact figures. Further analysis of exemptions will take place during conformance when a local build out is completed using the regional model.

### **I. Redevelopment and WQMP Procedures**

Ms. Swan noted that the Highlands Redevelopment Area designation procedures will be posted to the Highlands website after the June 12<sup>th</sup> meeting. She also outlined a recommendation for the Council to consider regarding the calculation of Impervious Surface for Redevelopment Area Designation Procedure. It is being recommended, after consideration of comments, that this procedure be modified to delete the default method and require a case-by-case analysis of impervious surface. This decision was reached after considering public comment and discussions with the NJDEP to ensure a consistent approach by state agencies. Council were in agreement on this issue.

Regarding Nitrate targets for WQMP consistency, there was a white paper drafted at the Council's request. It supports both consistency determinations regarding sewer extensions using the full RMP as well as the full RMP regarding all WQMP amendments in the Preservation and Planning Areas of conforming municipalities. Issues were noted regarding the appropriate nitrate targets for the WQMP consistency determinations in nonconforming Planning Area municipalities, the range of choice being from the minimum of the DEP's WQMP rules to the RMP thresholds.

Ms. Swan then presented a slide regarding the WQMP approach. The counties are encouraged to develop Wastewater Management Plans (WMPs) for all municipalities, although municipalities may opt out of the process. If they do so, they lose all proposed sewer service areas, the NJDEP will not process any WQMP amendments, and any projects that require NJDEP permits may proceed only if they generate less than 2,000 gallons per day of wastewater.

She then discussed the NJDEP nitrate target for septic systems being 2 mg/L using average ground water recharge (which results in an average lot size between 4 and 7 acres per single family house). Since over 40% of Highlands current zoning is more stringent than the NJDEP (including already developed lands) an even higher percentage of zoning may meet NJDEP requirements (the estimate is 50%).

RMP Requirements, which are voluntary in the Planning Area until an area conforms, were then reviewed. The nitrate targets of 2 mg/L in the Existing Community Zone, 1.87 mg/L in Conservation Zone, and 0.72 mg/L in the Protection Zone were outlined. Ms. Swan noted that no municipalities have zoning that meets the Protection Zone requirements, but a few have zoning that meets the targets for other zones. The RMP Policies would result in roughly 30% of the WQMP septic system yields in the Planning Area, since the WQMP rules and existing zoning

would result in 20,600 new septics and the RMP policies would result in approximately 6,200 new septics.

#### STAFF RECOMMENDATION

Ms. Swan stated that the Council staff stands by its original recommendation in order to foster comprehensive planning by conforming municipalities (Portions of Section 11 of the Act were read). Section 10 sets forth the Goals of the RMP with respect to the Preservation Area and with respect for the Planning Area

Section 11 sets forth the contents of the Plan for preservation and planning:

11. a. The regional master plan shall include, but need not necessarily be limited to:

(1) A resource assessment which:

(a) determines the amount and type of human development and activity which the ecosystem of the Highlands Region can sustain while still maintaining the overall ecological values thereof, with special reference to surface and ground water quality and supply; contiguous forests and woodlands; endangered and threatened animals, plants, and biotic communities; ecological factors relating to the protection and enhancement of agricultural or horticultural production or activity; air quality; and other appropriate considerations affecting the ecological integrity of the Highlands Region;

Ms Swan then read the final part of Section 11 : The resource assessment, transportation component, and smart growth component prepared pursuant to subsection a. of this section shall be used only for advisory purposes in the planning area and shall have no binding or regulatory effect therein.

She noted that the nitrate targets established in the RMP are designated not only to protect and enhance the existing water utility but also to ensure that the yield of additional septic systems are properly planned and distributed to avoid sprawling development patterns and to guide the growth into appropriate areas. While nonconforming municipalities will be strongly encouraged to utilize the Highlands Council's nitrate analysis in developing a WMP, the Council should support the municipalities' decision to meet the NJDEP's requirements through consistency determinations.

There was discussion on nitrate standards and whether mandating RMP standards for non conforming municipalities thorough the WMPs will affect municipalities' decision to conform. Ms. Swan further discussed the belief that the planning area communities had that the RMP and its standards were discretionary in that area. She also noted that changing the nitrate standards for septics from discretionary to a set standard may affect the trust and support of the municipalities. Mr. Dillingham disagreed with this recommendation, stating that failure to use the RMP standards would cause additional and unnecessary water pollution. He stated that there was no justification for this recommendation and that utilizing the higher standard is necessary for protecting the water. Mr. Cogger expressed that leaving the choice to the municipalities leaves room for making the wrong decision.

Ms. Swan read from the plan and expressed that these standards should be advisory in nature. She stated the negative effects that could occur with making these standards a set policy. Ms. Letts discussed the voluntary nature of opting in.

Ms. Carluccio supported the idea of the Council standing by the science and technical data they have developed. She explained that DEP's standard is set for the whole state, but includes a provision that areas that require a stricter standard can and should do so if they have the analysis to back that decision. Ms. Carluccio discussed Mr. Borden's memo and expressed her lack of support for not implementing the RMP standard. Ms. Swan noted that the information regarding the RMP standard was also provided to DEP and that all municipalities would be encouraged to comply with the RMP standards. Ms. Carluccio asked for language to be added regarding municipalities different options.

Mr. Schrier agreed that additional options for municipalities should be outlined.

There was discussion that the counties will be the wastewater planning entity but that the townships have the final say on their chapter within the County WMP.

Ms. Pasquarelli expressed her strong disapproval for not setting the RMP standard as a set standard. She stated that setting the stricter standard will not change the municipalities' choice to conform. She also pointed out that there needs to be consistency within the consistency standards. Ms. Pasquarelli noted concern about the origin of this discussion that she believed was started by the staff without sufficient input from Council. She stated that the question is – does the plan conform to the regional master plan – yes or no. We are not requiring anything, just does it or not. Conformance is voluntary, changing the standard does not change that.

Chairman Weingart stated that he believes this to be a difficult subject. He also stated that the matter was brought up as a result of the Somerset County WMP process and that staff have been fully briefing the Council members. He noted that the Act gives the Council flexibility and that this policy may affect the public's perception that the Planning Area is voluntary.

Mr. Schrier expressed his belief that it would go against the Act to impose the higher standard. There was discussion on how the nitrate standards would apply in municipalities which may decide to opt in further into the future. Ms Swan stated that the matter had been discussed with NJDEP and towns could choose a higher standard than the 2mg/L and if a town later conformed having used the DEP threshold they would then do a revision in order to change to the RMP standards.

Mr. Vetrano expressed that Ms. Swan and the staff are in his opinion the best at judging the reaction of municipalities and whether this action will affect conformance as the staff have been doing outreach.

Ms. Letts stated that other standards for the Planning Area are not being set, so it should not be set in this instance either.

Ms. Calabrese asked why the application of this standard as mandatory standard is perceived to be negatively accepted by municipalities.

There was discussion on the effect of this standard. Mr. Dillingham discussed the differences between mandatory conformance and the making of recommendations to DEP. He also explained the importance of implementing the plan. Ms. Carluccio stated that it may in fact have a very positive effect, and get the municipalities to opt in so that they can receive the benefits. Applying the standard would give the Council a way to positively affect water quality. Mr. Schrier stated that the Council should not push the municipalities to conform but encourage them to conform.

Chairman Weingart asked for a straw vote and mentioned that the actual vote would take place at the meeting of June 26, 2008.

Mr. Alstede expressed wanting to make a motion to support the staff's recommendation.

Ms. Way stated the importance for water protection and that there needs to be a set standard so as to not create any other issues.

Mr. Peterson expressed his concerns and confusions regarding the changes for nitrate standard. He believes it is a good argument for water quality and that with the upcoming COAH regulations, many towns will want to use this standard to avoid COAH.

Mr. Dillingham stated that it is about whether or not the Council will implement the policies or not and that the Council should not be carving out one standard

The Council took a straw vote regarding the staff recommendation.

The following Council members voted to stay with staff recommendation:

Mr. Alstede, Mr. Vetrano, Mr. Schrier, Ms. Letts and Mr. Whitenack (5 total)

The following Council members voted to change the recommendation and mandate the standard:

Ms. Calabrese, Mr. Dillingham, Ms. Way, Mr. Peterson, Ms. Pasquarelli, Ms. Carluccio, Mr. Cogger, and Ms. Kovach (8 total)

Ms. Pasquarelli asked for language discouraging large lot zoning and sprawl.

There was further discussion regarding nitrate standards and WMPs and how they will be applied in conforming and non-conforming municipalities as well as the different aspects of full conformance. Mr. Dillingham said that there needed to be no change to the RMP as Council would review WMPs against all RMP standards that are applicable not just one policy. Ms Swan asked that the Council be clear that it is all the standards and not just the nitrate thresholds. Mr. Peterson disagreed. Staff would present to the Council further information on the application of RMP standards to non conforming municipalities.

Ms. Carluccio asked that the staff look into new policies that are in place within WQMP and DEP policies.

Chairman Weingart announced that the next meeting is June 12<sup>th</sup> at 10:00am.

**PUBLIC COMMENTS:**

**RICHARD BERGER, Hackensack, a lawyer representing a developer:** Mr. Berger asked for recommendations regarding sewer and water extensions for properties that he is representing. He would like a policy in which a builder can come to the Council regarding a consistency determination. Mr. Berger also asked about non-contiguous clustering. Also, he mentioned that under a NJ Statute, there is a statement that the Council shall identify undeveloped areas in the Planning Area that are suitable for development.

**JULIA SOMERS, NJ Highlands Coalition:** Ms. Somers stated her support of the nitrate standards vote and stated that the Council has a mandate to protect the water. She expressed a need for an MOU with DEP regarding the new rules and recommendations. Ms. Somers asked about the presentation being posted online. She also stated her support for dropping the default method for impervious surfaces. Lastly, she commented that there aren't standards for wastewater plants and on site systems within the plan and that the state standards are not sufficient. She asked for additional language regarding this issue. She noted that written comments will be submitted covering topics that need to be revisited.

**MONIQUE PURCELL, Department of Agriculture:** She stated her confusion about the Council's nitrate discussion. She explained the difference between recommending and setting mandatory limits. She stated her support of the staff's recommendation.

**PAT MATARAZZO, Passaic River Basin Alliance and Association of Environmental Authorities:** He mentioned the work that they are doing on with DRBC on an amendment to their source water protection rules and their special protected waters' rules. This includes capping all wastewater discharge at their 2004 levels, which could affect the TDR program. Their definitions are changing as well, which could change the capacity that is available. He suggested that the Council sit down with the DRBC to be updated on this topic. Regarding nitrates discussion, he noted that the average discharge from a wastewater treatment plant is 20 milligrams and that is acceptable to DEP. He suggested that the Council look into the TDR process further.

**ROBIN O'HEARN, Sklands Clean:** Ms. O'Hearn expressed that many comments seem to be ignored or only resulting in minor adjustments (particularly in Lake Management). She suggested that capacities be looked into further. She expressed that some of the TDR receiving zones may be in unwarranted areas. She believes that no receiving zones are necessary within the Preservation Area. Lastly, she would like the Council's response on the proposed Permit Extension Act.

**ROSS KUSHNER, Pequannock River Coalition:** Mr. Kushner questioned the staff's response to comments received. He noted the removing the sensitive areas has not be properly addressed or discussed. He stated that receiving zones are far in excess of what is mandated in the Act. . He asked for sensible map adjustments. He objected for various reasons to the changes on the overlay zone map to show the wildlife management areas.

**WILMA FREY, NJ Conservation Foundation:** Ms. Frey commented that the staff recommendation regarding the WMP requires a consistency determination. She stated that there is an impact that needs to be dealt with in the WMP – especially the water quality. She expressed her lack of support for using any nitrate standard other than the one that the staff has set forth in the RMP. Regarding the Wildlife Management Zones, she advocated including other publicly owned conservation/recreation areas (State Parks, forests, etc).

**DAVID PEIFER, ANJEC: (written comments submitted):** Mr. Peifer brought up the Permit Extension Act and asked for the Council’s opposition to this Act due to the critical nature of the Highlands Area. He stated that this Act will go against the Highlands rules and regulations. Mr. Peifer also noted issues with permit standards and how they could create a type of exemption. He suggested that the Council look into this Act. Secondly, he discussed the Steep Slope Protection Conformance standards. He began with complimenting the job the staff has done with this area. Mr. Peifer noted that ERIs should be discussed further in the Plan, particularly how it will differ from a standard ERI. He noted that there will be a wide range in the quality of ERIs that are received. He suggested that the Council set some data standards, including the use of digital data. He submitted written comments on the conformance standards.

**CHRISTINE HEPBURN, Madison:** She expressed her support for the stricter nitrate standard. She stated that most people are happy about the Highlands Act and support the efforts of the plan. She stated that the work the Council and staff are doing is very important and appreciated.

**TONY SORIANO, Morris County Planning Board:** Mr. Sorianno expressed concern over the new zone for the Wildlife Areas. He said that this will only complicate and confuse the map and that language should be added to the plan in its place. Regarding septic densities, he stated that Planning Area municipalities will be surprised at conformance being mandatory and he expressed sympathy for staff who would have to carry that message. Regarding the Preservation Area, the septic densities set by NJDEP are different from those in the RMP. He recommended that the Council ask the DEP to adopt the highlands standards and abandon their own.

**HELEN HEINRICH, NJ Farm Bureau:** Ms. Heinrich stated her support for seeing a real life example of the allocation process within TDR. She also supported the fact that the Council will revisit the nitrate standard as she believes that the Council may be confused about what they are voting on. She stated support for flexibility in planning.

**DAVID SHOPE, NJ Farm Bureau member:** He discussed rainfall and the effects it has on water pollution by washing garbage into the sea. He stated his belief that NJ is not in compliance with the 1972 Federal Clean Water Act. He discussed the historic use of scientific knowledge and that the use of this science is an excuse for mandating social policies. He compared the Federal standard of 10mg/L to what is happening here. He compared the local policies to colonial policies. He stated that water is held in trust by the State and that he doesn’t trust the State. He expressed his lack of belief that there will be any relief from Trenton. He stated that relief will be from the courts and not the New Jersey courts.

**ANDY DRYSDALE, Chester Township:** Mr. Drysdale discussed his lack of support for confidential lists that effect people's property values. Regarding the nitrate standard, he stated that it is ridiculous and likely to be impossible to achieve.

**Chairman Weingart asked for a motion to adjourn.**

**Motion made by Jack Schrier seconded by Glen Vetrano all in favor. Meeting was adjourned.**

**Vote on the Approval of these Minutes**

	<u>Yes</u>	<u>No</u>	<u>Abstain</u>	<u>Absent</u>
Councilmember Alstede				✓
Councilmember Calabrese	✓			
Councilmember Carluccio	✓			
Councilmember Cogger	✓			
Councilmember Dillingham	✓			
Councilmember Kovach				✓
Councilmember Letts	✓			
Councilmember Pasquarelli	✓			
Councilmember Peterson				✓
Councilmember Schrier				✓
Councilmember Vetrano				✓
Councilmember Way	✓			
Councilmember Whitenack	✓			
Councilmember Weingart	✓			

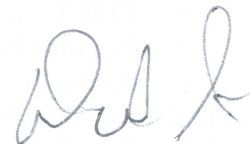
**PUBLIC COMMENTS SUBMITTED**

CORRECTIONS TO 5-22 ME - RE COMMENTS BY

D. SHOPE. THE LIST OF WHAT I SAID WAS THAT EXPERIMENTS WITH CHIMPS IN WHICH TWO ~~OF~~ CHIMPS, IN SEPARATE ~~AND~~ BUT ADJOINING CAGES COULD OBTAIN, BY CO OPERATING, FOOD REWARDS. WHEN ONE CHIMP WAS "SHORTCHANGED", IN TERMS OF THE REWARDS GAINED FROM THEIR MUTUAL CO OPERATION, THE "SHORTCHANGED" CHIMP REFUSED FURTHER CO OPERATION, RESULTING IN ~~A~~ NEITHER CHIMP GETTING ANYTHING. THIS WAS THE LIST OF THE EXPERIMENT.

I EQUATED THE ETHICAL EVOLVEMENT OF THE CHIMPS, AS TO THE CONCEPT OF FAIRNESS, TO THAT OF ADAM ZOLLNER, CHARLES SEMONS, THOSE JUDGES, AND OTHERS WHO BELIEVE THAT TAKING ALTHOUGH A SMALL FRACTION OF HIGHLAND FARMER & LANDOWNER EQUITY AS OK & PERMISSIBLE, UNFAVORABLY. I SAID THOSE MENTIONED ABOVE AS HAVING NOT EVOLVED TO ACHIEVE THE ETHICAL STANDARDS OF APES.

THE CYNICISM OF THIS LAW IS ENCAPSULATED IN THE WAIVER GIVEN TO AVOID A TAKING.



DAVID SHOPE

6-5-08



**Comments  
Of  
The Association of New Jersey Environmental Commissions  
On  
Assembly Bill No. 2867, "Permit Extension Act of 2008"  
Presented to the New Jersey Highlands Council  
June 5, 2008**

**Prepared and Presented by**

**David Peifer, Highlands Project Director**

The Association has reviewed the "Permit Extension Act of 2008" in the context of its potential impacts on the Highlands Region and the effective implementation of the Highlands Act, including conformance with the RMP. The Association strongly urges the Council to express its opposition to this ill conceived and environmentally damaging legislation. We take this position for the following reasons:

In the Highlands Act in several locations specifically declared that the existing regulatory system was *insufficient* to protect the resources of the region. For example, "...*the existing land use and environmental regulation system cannot protect the water and natural resources of the New Jersey Highlands against the environmental impacts of sprawl development...*" and "...*is an issue of State level importance that cannot be left to the uncoordinated land use decisions of 88 municipalities, seven counties and a myriad of private landowners*".

The legislature's correct assumption was the existing state permitting system, as well as a host of other county and local land use control mechanisms were inadequate to protect the essential natural resources of the region. The proposed permit Extension Act will allow these existing inadequate permitting decisions to remain in place until, in some cases, the year 2014. Thus the proposed legislation is destructive of the rational Highlands planning process and should not be implemented due to the critical statewide significance of the Highlands resources.

We would also note that under existing rules, state permits are granted for a period of 5 years, with an extension of five years available. This decade long life span is more than sufficient to meet the requirements of applicants.

Additionally, the extension of existing and, in some cases expired permits will create an administrative nightmare for both the Council itself and the 88 municipalities of the region precisely at a time when the conformance process is beginning. In effect, applicable extended permits will become a class of "temporal exemptions" around which both the RMP and the municipal conformance processes will have to work.

We strongly suggest that the Council conduct an assessment of the potential impacts on the implementation of the Highlands Act and the successful completion of municipal conformance. We trust that, if conducted, such a review would reveal that the Permit Extension Act of 2008 is destructive to the Council's legislative mandate and should not be implemented. The Council should forcefully convey its conclusion to the appropriate legislators and to the Governor at the earliest possible time.

Comments of ANJEC, June 5, 2008  
(Conformance materials released May 22, 2008)

“Guidance for Municipal Plan Conformance  
with the  
Highlands Regional Master Plan”

“Steep Slopes Protection Conformance Standards”  
Prepared and Presented  
by  
David Peifer, Highlands Project Director

The material released is an example of a part of the “Guidance Document” to be provided to municipalities during the conformance process. Numerous other sections remain to be produced/released. The document works together with the RMP Chapter VI, subpart a Plan Conformance and several previous technical papers. It serves both as guidance and as a worksheet for municipal conformance.

The format of the document includes a column called “*Component*”. This includes:

- ERI
- Master Plan and Conservation Element
- Institutional Capacity
- Development Review Checklists
- Land Use Ordinance
- Enforcement and Recommended Model or Sample Ordinances.

The second column is “Status”. This is to be used during the municipal self assessment.

Entries can include:

C-fully complete

P=Partially complete, with a need for improvement

IP-in progress

NS-Not started

NA-not applicable.

The third column is “Standards”. This appears to be a linkage to specific provisions of the RMP. Basic Plan Conformance Standards and “plan Conformance Standards” are presented. The user is referred to the RMO and the DEP Highlands rules.

- This will entail considerable cross-referencing and will result in a possibly negative narrow focus by municipal participants.

The fourth column is “Commentary”. Specific guidance is provided here.

#### General Comments

- The Council is to be commended for the approach taken which follows a logical progression from ERI to Master Plan and Conservation Element, Institutional Capacity, Development Checklists, Land Use Ordinances, Enforcement and Model or sample Ordinances.

While it is impossible, from the sample provided to know what the entire Guidance Document will contain ANJEC makes the following observations.

#### ERI's (in general)

ERIs will vary considerably throughout the region. Some municipalities will not have one at all. Others will be out of date paper (non-digital) documents. Still others will be digital, but the appointed municipal officials will not have access to or use GIS technology. Some will be fully functional GIS based digital products that are used by municipal professionals.

ERI's created or revised during conformance must support the full range of existing municipal functions and those created by the Highlands RMP.

- The Council must describe how a “Highlands Conformance ERI” will differ from traditional, municipal based ERI's, especially with regard to maintaining regional objectives. Specific data sets to be acquired and accompanying meta data should be provided
- The Council must set data standards for municipal GIS systems.
- The Council must assure that municipalities have ability to use, manipulate, and revise digital ERIs internally. This should be a requirement under “Institutional Capacity”, otherwise the value of using GIS technology may be lost. Municipalities will need to make the funding and personnel commitments to acquire adequate hardware, software, and data, train personnel in use of GIS and maintain data in the most current condition, including maintenance of metadata.

#### Municipal Master Plan and Conservation Element (in general)

- The Council is to be commended for requiring a Conservation element. However, specific guidance on what it is to contain to meet Highlands Requirements should be provided. Full compliance with the MLUL should be specified as a minimum

(40:55D-28(8): A conservation plan element providing for the preservation, conservation and utilization of natural resources, including, to the extent appropriate, energy, open space, water supply, forests, soil, marshes, wetlands, harbors, rivers, and other waters, fisheries, endangered or threatened species wildlife and other resources, and which systematically analyzes the impact of each other component and element of the master plan on the present and future preservation, conservation and utilization of those resources

### Specific Comments: Steep Slopes Protection Conformance Standards

#### P.1

Standards: Basic Plan Conformance: ANJEC does not understand #3. What specifically is to be mapped or described?

Commentary: The user should be directed to definitions and GPOs related to ridgelines and viewsheds.

Plan Conformance Standards: Mapping What is the rationale for the minimum mapping area of 5000s.f.? What is the appropriate size if data are not sufficient?

Commentary: When will the LiDAR based slope mapping be available?

#### P.2

Institutional Capability: Project Review :Commentary: ANJEC does not agree that steep slope review is “primarily performed by the municipal engineer. Environmental Commissions routinely review steep slopes during site plan review and during field visits.

Site Visit Authority: Commentary: should be made a checklist item.

Development Review Checklists:

ANJEC supports the use of checklists as one element of project review.

#### P.5: Exemptions: Commentary

ANJEC appreciates the clarification regarding more stringent local ordinances for non-exempt properties but was under the impression that local ordinance could control exempt properties in any manner it chose, provided the regulation was not arbitrary, capricious or unreasonable or vague, that is meeting the normal land use law tests. In sum, our understanding has been that exempt properties would still be subject to local ordinance.

The Council’s position to deny the legal shield protections to a municipality that instituted more stringent environmental protections or which may currently have more stringent protections in place is unacceptable.

#### #6, Steep Slope Application

ANJEC strongly objects to the language that seems to indicate that a reviewing municipal professional may “grant an approval”. Only planning board or boards of adjustment may grant approvals. If this is the approach advocated by the Council it must be stricken.

**#7, Completeness**

Completeness determinations must be made by the planning board or the board of adjustment in open public session, not by a “completeness designee”.

**#9, Requirements for Deed Restrictions**

This section is wholly inadequate. The holder of the easement must be specified and the holder must have the financial resources and institutional structure to monitor and enforce the terms of the easement. Baseline documentation must be required and a storage system for this information must be required. The Council could consider general guidance and a sample easement but monitoring and enforcement must be clearly defined and financially provided for. As written, ANJEC cannot support this provision.

# Issues for Council Discussion

June 5, 2008

# Carbonate Rock Program Changes

- The Carbonate Rock Program was amended to reflect changes made to the respective GPOs
  - Clarified that karst is not strictly a surface condition
  - Noted the functions and values that karst provides
  - Added new objectives for when specific karst features are identified:
    - Prohibit new uses that would constitute unacceptable risk
    - Prioritize upgrades or remedial actions for existing high risk land uses and facilities

# Lake Management Program Changes

- Text was added to note the distinction in management objectives between developed lake areas in the Lake Community Sub-Zone and undeveloped lake areas
- New standards were added in response to public comments:
  - Permit and encourage the control and removal of algae and invasive aquatic weeds in the Lake Community Sub-Zone
  - Where shorelines have already been hardscaped, encourage the creation of vegetated filter strip along the shoreline
  - Require that septic systems and cesspools on small lots in close proximity to lakes be replaced and upgraded wherever feasible and cost-effective
  - Where existing density of septic systems is known to be a significant contributor of lake pollutants, community wastewater treatments shall be utilized, where feasible, environmentally acceptable and cost-effective but not to provide additional development capacity except for exempt lots

# Land Preservation and Stewardship Program Changes

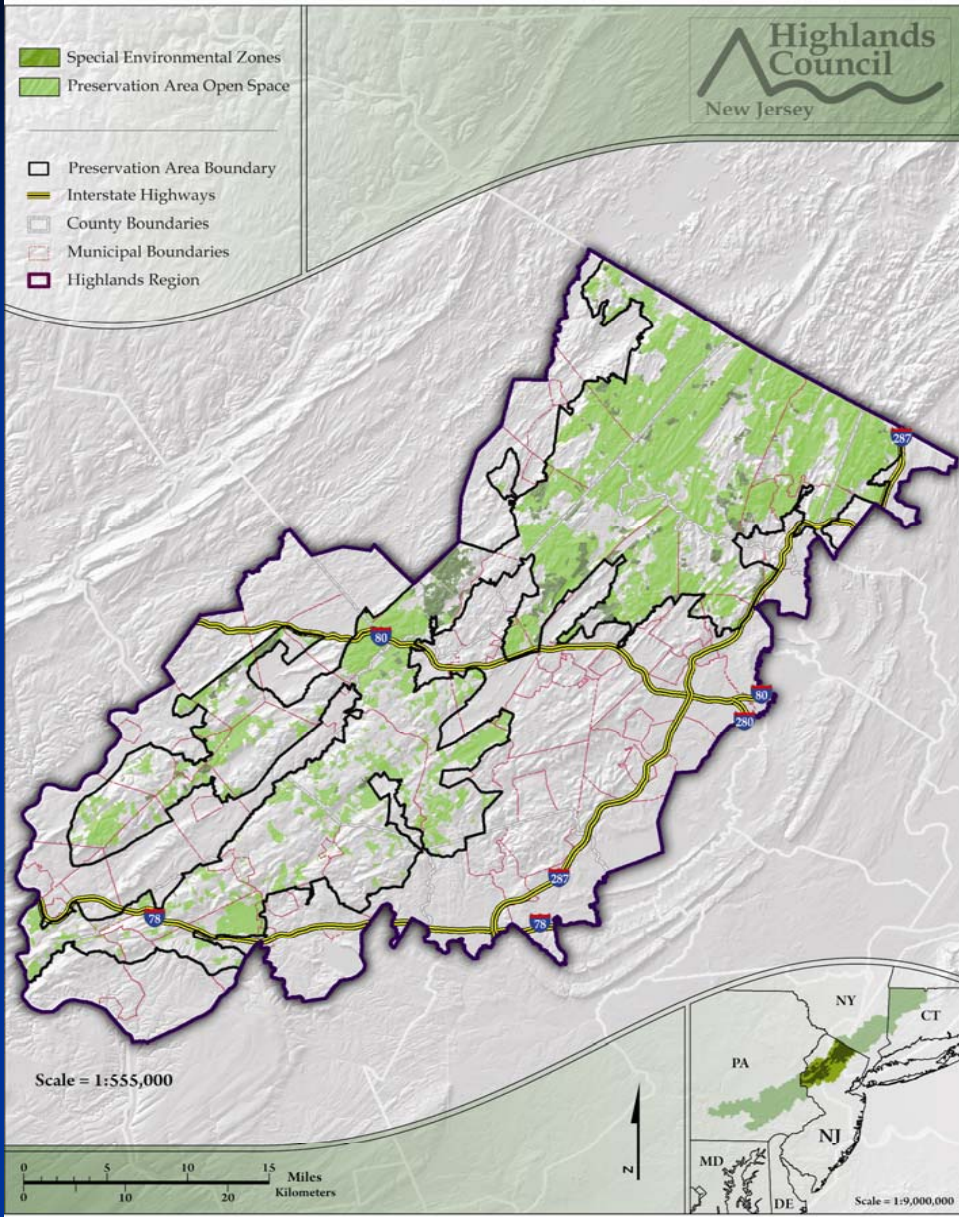
- The Land Preservation and Stewardship Program was updated to reflect changes made to the respective GPOs. Cross-reference to the Historic, Cultural, Archaeological and Scenic Program was added.
  - *Establishment of New/ Alternative/ Innovative Land Preservation Programs* was amended to include a representative list of programs and options to be examined by the Highlands Council for appropriateness in the Highlands Region
  - *Establishment of Dedicated Sources of Funding* was amended to include a more extensive list of possible future dedicated funding sources for land preservation and stewardship
  - *Establishment of Land Preservation Priorities* was amended to include the Special Environmental Zone in accordance with the Highlands Act, section 12a

# Special Environmental Zone

The following is a summary of the environmentally sensitive lands in the Preservation Area:

➤ Preservation Area (total lands)	414,965 acres
➤ Preserved Land (existing)	188,469 acres (45%)
➤ Conservation Priority Area	114,114 acres (27%)
• Conservation Priority List	63,153 acres
• Special Environmental Zone	19,000 acres

### SPECIAL ENVIRONMENTAL ZONES



# Wastewater System Maintenance Program Changes

- Clarified septic system maintenance program
  - public information is required for all septic systems,
  - mandatory inspection and maintenance is required for septic systems with the highest potential for pollution problems.
  
- Upgrading septic systems – added language in response to public comments, clarifying that the use of community systems should not create harmful effects, such as loss of water availability.

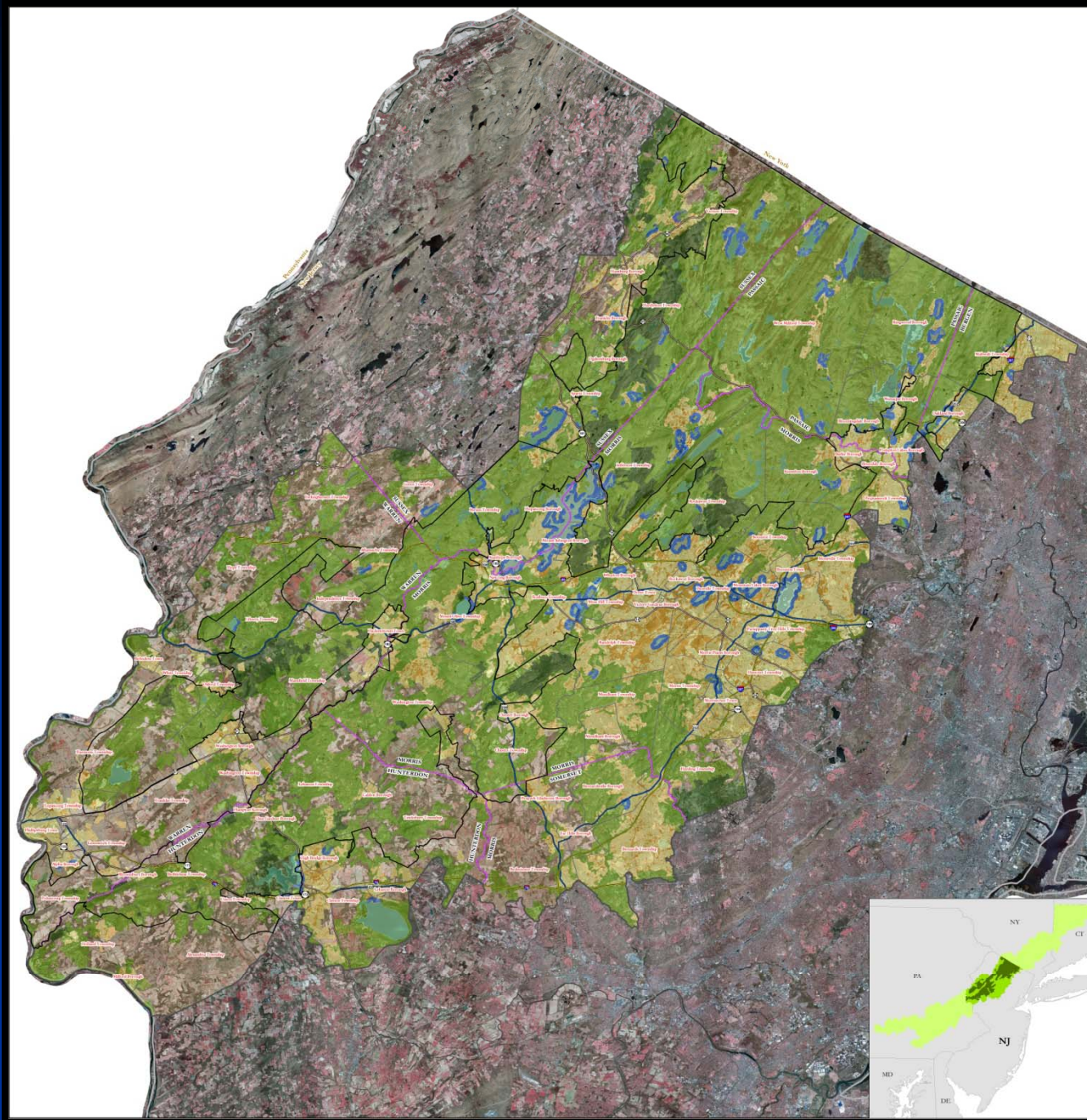
# Land Use Capability Zone Map

- ❖ Council staff is proposing to update the Land Use Capability Zone map, in response to public comments regarding preserved State and Federal lands.
  
- ❖ Proposal includes a new Wildlife Management Sub-Zone which includes the following:
  - Federal Wildlife Refuges
  - State Wildlife Management Areas
  
- ❖ Protection Zone policies would apply in the Wildlife Management Sub-Zone

# Land Use Capability Zone Map

The new Wildlife Management Sub-Zone includes the following lands:

- Federal Wildlife Refuges (7,000 acres) including the Great Swamp National Wildlife Refuge and Wallkill River National Wildlife Refuge
- State Wildlife Management Areas (34,000 acres) larger areas include Berkshire Valley, Black River, Clinton, Hamburg Mountain, Pequest, Rockaway River, Sparta Mountain, Wanaque, and Wildcat Ridge.



# Smart Growth and Community Design Handbook Program Changes

- Combined “Smart Growth Manual” and “Community Development Design Guidebook” into one Handbook
- Renamed “Smart Growth and Community Design Handbook”

# Highlands TDR Program Changes

- Language added to clarify which parcels in what zones may be eligible to submit an application for an HDC determination
- Non-Residential Allocation Method added to program
  - Method considers the size of parcel, zoning and land use regulations applicable to the parcel as of November 2005, and the underlying land values of different types of non-residential development to determine allocation of HDCs
- Revised section concerning Receiving Zone eligibility to be consistent with revised GPOs and to state that municipalities outside of Highlands Region and non-conforming municipalities must receive plan endorsement in accordance with State Planning Commission guidelines before a Receiving Zone may be established
- Added a new section regarding the Receiving Zone designation process, which indicates that establishing a Receiving Zone is voluntary and triggered only by municipal action and must be approved by the Council as consistent with the resource protections of the RMP and have infrastructure capacity.

# Highlands Act and Build Out

Section 11(a) of the Highlands Act does not require a build out analysis but mandates that the Regional Master Plan include:

- “a resource assessment which determines the amount and type of human development and activity which the ecosystem of the Highlands Region can sustain while still maintaining the overall ecological values thereof...”
- “a smart growth component ... based on the resource assessment ... which assesses ... opportunities for appropriate development, redevelopment, and economic growth...”

# A Build Out Model

Provides estimates of the ultimate ability of a land area to support new development based on:

- ❑ Existing land and development conditions
- ❑ Regulatory constraints and opportunities
- ❑ Various assumptions regarding the relationship of available land and existing development to infrastructure and environmental resources

Uses spatial and technical data to examine potential development scenarios and the resultant houses, residents, non-residential development and jobs that may occur if full build out of lands occurred.

A model is a management tool, not a prediction

# Highlands Regional Model

- ❑ The Highlands Build Out Model is GIS-based, estimates the full build out of developable land, and is based upon RMP policies of environmental constraints, water availability, and wastewater utility capacity.
- ❑ Lands potentially available for development are based on undeveloped or underdeveloped parcels as of 2007, excluding any preserved lands, and municipal zoning as of 2005.
- ❑ Report does not evaluate the build out impacts of potential Highlands Act exemptions, redevelopment areas or TDR receiving zones. Will be evaluated through local Plan Conformance.
- ❑ Highlands Region developable lands used in the build out model are approximately 230,000 acres, representing 123,000 acres in the Planning Area and 106,000 in the Preservation Area.

# Model Scenarios

- ❑ The voluntary nature of the Highlands Act, for the Planning Area, triggered the need to develop multiple build out scenarios.
- ❑ Model includes three primary scenarios including:
  - 1) Development analysis assuming no Highlands Act (*Without Highlands Act*)
  - 2) Assuming implementation of the RMP in the Preservation Area only (*Preservation Area Conformance*)
  - 3) Assuming full implementation of the RMP in both the Planning and Preservation Areas (*100% RMP Conformance*)

# Model Scenarios

- ❑ ***Without Highlands Act*** - build out using municipal zoning and NJDEP's rules for septic system density (2 mg/L). When the local zoning required a larger lot size (lower density) than the WQMP Rule required, the zoning lot size was applied.
- ❑ ***Preservation Area Conformance*** - build out assuming full conformance in the Preservation Area and no conformance in the Planning Area. The Planning Area build out is the same as the *Without Highlands Act* scenario.
- ❑ ***100% RMP Conformance*** - build out assuming full conformance for all 88 Highlands municipalities. This scenario estimates Plan Conformance throughout the Highlands Region, but does not include additional discretionary growth that might result from local decisions using available infrastructure capacity.

# Table 1 - Highlands Build out Scenarios

Build out Scenario	Without Highlands Act	Preservation Area Conformance	100% RMP Conformance
<b>Preservation Area</b>	Assumes no Act (based on NJDEP's 2 mg/L nitrate target and "gross density" in septic system areas)	Assumes 100% Conformance (based on full implementation of the Regional Master Plan and NJDEP's Highlands Act rules - N.J.A.C. 7:38)	Assumes 100% Conformance (based on full implementation of the Regional Master Plan and NJDEP's Highlands Act rules - N.J.A.C. 7:38)
<b>Planning Area</b>	Assumes no Act (based on NJDEP's 2 mg/L nitrate target and "gross density" in septic system areas)	Assumes 0% Conformance (based on NJDEP's 2 mg/L nitrate target and "gross density" in septic system areas)	Assumes 100% Conformance (based on full implementation of the Regional Master Plan)

**Table 2 - Summary of Highlands Build out –**  
 (Planning Area/**Preservation Area**)

<u>Build Out Scenario</u>	<u>Developable Lands (acres)</u>	<u>New Dwelling Units or Houses</u>	<u>New Non-residential (million sq. ft.)</u>	<u>Wastewater Utility Constraint</u>	<u>Water Availability Constraint</u>
Existing Conditions	230,000	296,500			
Without Highlands Act		47,600 (26,000/ <b>21,600</b> )	108.1 (85.8/ <b>22.3</b> )	15% of 3.5 MGD	27% of 6.0 MGD
Preservation Area Conformance	230,000 (123,000/ <b>106,000</b> )	28,800 (26,000/ <b>2,800</b> )	86.0 (85.8/ <b>0.006</b> )	16 % of 3.1 MGD	16% of 3.9 MGD
100% RMP Conformance		12,300 (9,500/ <b>2,800</b> )	19.1 (19.1/ <b>0.006</b> )	11% of 1.1 MGD	2% of 1.4 MGD

## Table 3 - Summary of Highlands Build out – Environmental Impact Land Based Results

<u>Build Out Scenario</u>	<u>Additional Impervious Surface (Acres)</u>	<u>Additional Water Demand (MGD)</u>	<u>Additional Wastewater from sewer and septic systems (MGD)</u>
Existing Conditions	58,800	n/a	n/a
Without Highlands Act	7,300 (5,100/2,200)	20.5 (12.4/8.1)	18.3 (11.2/7.1)
Preservation Area Conformance	5,300 (5,100/200)	13.3 (12.4/0.9)	12.0 (11.2/0.8)
100% RMP Conformance	2,300 (2,100/200)	4.8 (3.9/0.9)	4.1 (3.3/0.8)

# Wastewater Capacity

- The wastewater capacity for the Highlands Domestic Sewerage Facilities (HDSF) was examined for each scenario. There are 42 HDSF's in the Highlands Region.
- Of the 42 facilities, 8 currently have no permitted capacity available and these 8 facilities are considered unable to serve additional capacity demands in the three scenarios.
- The *Without Highlands Act* and the *Preservation Area Conformance* scenarios both indicate that 3 additional HDSF's (11 total) would exceed available capacity (Rockaway Valley Regional Sewer Authority, Warren County-Belvidere, and Morristown).
- The *100% RMP Conformance* scenario indicates that 2 additional HDSF's (10 total) would exceed available capacity (Rockaway Valley and Morristown).

# Wastewater Capacity

- Region-wide wastewater utility capacity is approximately 15.3 MGD
- Projected build out needs under *Without Highlands Act* scenario are approximately 3.5 million gallons per day (MGD) (23%)
- The *100% RMP Conformance* scenario projected demand at approximately 1.1 MGD (7%). The remaining capacity would be available to address failing septic systems, additional redevelopment, TDR receiving zones and cluster development adjacent to infrastructure, if sufficient water supply and net water availability exist in those areas.

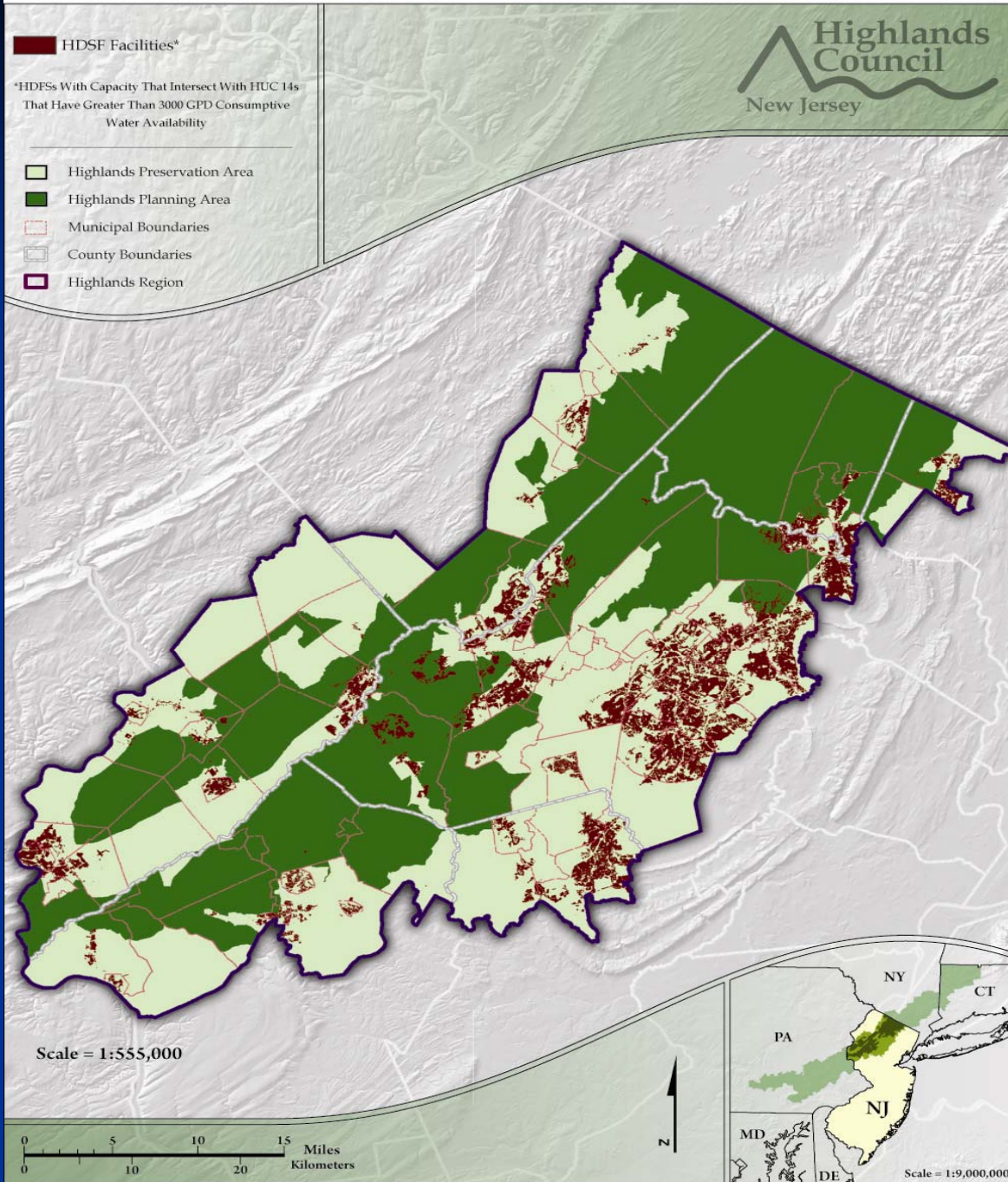
# Water Capacity

- All scenarios would generate water demands that exceed net or conditional water availability in a number of subwatersheds. Water availability will be a constraint on achieving full build out.
- Constraints indicated by the model are a scenario based on limiting assumptions that may be modified.
- The *100% RMP Conformance* scenario indicates 5 subwatersheds with insufficient net or conditional water availability.
- The *Without Highlands Act* scenario indicates 71 subwatersheds with insufficient net or conditional water availability.
- Land based development in such subwatersheds may only reach full build out if municipalities demonstrate through the Water Use and Conservation Management Plans and best management practices that the conditions for water availability have been met.

# Sustainable Capacity

- The water availability and wastewater analysis for the *100% RMP Conformance* scenario were mapped to visualize potential growth opportunities.
- The *100% RMP Conformance* figure shows areas that have both Highlands wastewater facilities with capacity after build out and some water availability
- This figure depicts the existing area served for 32 Highlands wastewater facilities (HDSF) that would have remaining sewerage capacity and are located within any of the 121 HUC 14 subwatersheds that would have at least 3,000 gpd of consumptive water available.

### 100% RMP CONFORMANCE SCENARIO LAND-BASED BUILDOUT: SUSTAINABLE CAPACITY MAP



# Discretionary Growth

- Highlands Act: “a smart growth component...(based on the resource assessment) which assesses: “opportunities for appropriate development, redevelopment, and economic growth...”
- The RMP includes a discretionary policy to allow municipalities additional growth after an examination of infrastructure capacity and resource protection. Model starts with *100% RMP Conformance* scenario.
- Evaluates build out capacity of the approved sewer service area in the Planning Area Existing Community Zone, using existing zoning but at a minimum of 2 dwelling units per acre and a target floor area ratio of 0.84.
- Most significant result: approximately 111,000 additional jobs on only 1,400 impervious surface acres representing 3 times the current jobs per acre density as compared to *Without the Highlands Act* growth patterns.
- Less impervious cover than the trend of “sprawl;” however there will be constraints for water availability and wastewater capacity.

# Key findings

- The build out results for developable lands indicate that without the Highlands Act, 15% of the projected wastewater utility demand (3.5 MGD) and 27% of the water demand (6.0 MGD) cannot be supported by the relevant utilities or subwatersheds, and would further limit growth potential in some areas.
- Even with 100% RMP Conformance, the build out projections indicate that 11% of wastewater utility demand (1.1 MGD) and 2% of water demand (1.4 MGD) cannot be supported by the relevant utilities or subwatersheds.
- At 100% RMP Conformance, build out represents approximately an additional 2,300 acres of impervious surface area in the Region as compared to 7,300 acres without the Highlands Act or a 68% reduction.
- Much of the undeveloped land zoned for commercial and industrial use is in environmentally constrained areas, outside of existing water and sewer service areas.
- Based on current population and infrastructure conditions, the development of many of these commercial and industrial lands is highly unlikely and does not reflect smart growth principles.

# Next Steps

- The refinement of this model happens through local build out analysis
- Council staff will provide the GIS model to municipalities as the basis for the local build out
- Council will provide grants and technical assistance in support of local build out
- We recognize that the local model will include updated information through the RMP Update Process

# Redevelopment Procedures

Procedures for Highlands Redevelopment Area designation will be posted to Highlands website after the June 12<sup>th</sup> meeting.

Recommendation for Council deliberation:

- In February 2008, the Council released a draft method for mapping impervious surface based on the definition of the Highlands Act
- Comments received raised questions about the technical method or suggested refinements.
- Based on the review of these comments and further discussions with NJDEP Divisions of Land Use Regulation and Watershed Management, Council staff recommends that the Redevelopment Area Designation Procedure be modified to delete the default method and require a case-by-case analysis of impervious surface.

# Nitrate Targets for WQMP Consistency

- White paper in response to Council request
- Supports consistency determinations regarding sewer extensions using full RMP
- Supports consistency determinations using full RMP regarding all WQMP amendments in Preservation Area and in Planning Area conforming municipalities

## Issue

Appropriate nitrate target for WQMP consistency determinations in nonconforming Planning Area municipalities. Range of choice from minimum of DEP WQMP rules to RMP thresholds

# WQMP Approach

- Counties develop Wastewater Management Plans (WMPs) for all municipalities
- Municipalities may opt out of WMP process:
  - They lose all proposed sewer service areas (if any)
  - NJDEP will not process any WQMP amendments
  - Projects that require NJDEP permits may proceed only if they generate less than 2,000 gallons per day of wastewater (approximately 5 homes)
- Nitrate target for septic systems is 2 mg/L using average ground water recharge, by watershed this results in average lot sizes between 4 to 7 acres per single family house
- Over 40% of Highlands current zoning, including already developed lands, is more stringent than the NJDEP so an even higher percentage of zoning for undeveloped lands may meet NJDEP requirements. Estimate is 50%

# RMP Requirements

- Voluntary in Planning Area: Highlands Act
- Nitrate targets are 2 mg/L in Existing Community Zone, 1.87 mg/L in Conservation Zone, and 0.72 mg/L in Protection Zone. Uses drought recharge on subwatershed basis resulting in lot sizes of 9.4, 10, and 26.1 acres per single family house
- No municipalities have zoning that meets Protection Zone requirements; a few have zoning that meets targets for the other Zones, with the most restrictive zoning requiring 10-12 acres per unit on average
- RMP policies would result in roughly 30 percent of the WQMP septic system yields in Planning Area
- WQMP rules and existing zoning would result in approx 20,600 new septics if no Planning Area lands conformed
- RMP policies would result in approx 6,200 new septics

# Staff Recommendation

Council staff stands by its original recommendation in order to foster comprehensive planning by conforming municipalities

Section 10 c of the Act (RMP Planning Area Goals)

- (9) encourage, consistent with the State Development and Redevelopment Plan and smart growth strategies and principles, appropriate patterns of compatible residential, commercial, and industrial development, redevelopment, and economic growth, in or adjacent to areas already utilized for such purposes, and discourage piecemeal, scattered, and inappropriate development, in order to accommodate local and regional growth and economic development in an orderly way while protecting the Highlands environment from the individual and cumulative adverse impacts thereof;
- The nitrate targets established in the RMP are designed not only to protect and enhance the existing water quality in the Highlands subwatersheds, but also to ensure that the yield of additional septic systems are properly planned and distributed to avoid sprawling development patterns and to guide the growth into appropriate areas.
  - While nonconforming municipalities should be strongly encouraged to utilize the Highlands Council's more detailed nitrate analysis and more protective nitrate targets in developing a WMP, a municipality's decision to meet the NJDEP's requirements should be supported by the Council through consistency determinations.



JON S. CORZINE  
*Governor*

## State of New Jersey

Highlands Water Protection and Planning Council  
100 North Road (Route 513)  
Chester, New Jersey 07930-2322  
(908) 879-6737  
(908) 879-4205 (fax)  
[www.highlands.state.nj.us](http://www.highlands.state.nj.us)



JOHN R. WEINGART  
*Chairman*

EILEEN SWAN  
*Executive Director*

Contact: Eileen Swan, Executive Director  
(908) 879-6737 ext. 101 or  
[eileen.swan@highlands.state.nj.us](mailto:eileen.swan@highlands.state.nj.us)

FOR IMMEDIATE RELEASE  
June 5, 2008

# Highlands Council Releases Regional Build Out Analysis

CHESTER, N.J. – The New Jersey Highlands Water Protection and Planning Council has released its analysis of development potential in the Highlands Region illustrating the positive impact the Regional Master Plan (RMP) would have on protecting lands to ensure a healthy and plentiful water supply. The analysis indicates that the policies the Council is currently considering for inclusion in the Regional Master Plan, scheduled for consideration for adoption next month, would considerably reduce the amount of new development that would otherwise occur in the Highlands Region. The Plan would also significantly lessen negative impacts on water quality through, for example, a major decrease in new impervious surface.

The build out analysis is a computer-based assessment that projects the amount of new development that could occur in the Region under three different scenarios, assuming that all developable lands are built to the maximum levels allowed by municipal zoning or by applying a minimum threshold of 2mg/L nitrate target, whichever is more stringent. The first scenario examines the amount of development potential if the Highlands Act had not been adopted. The second scenario assumes that only Preservation Area municipalities comply with the provisions of the RMP and the Department of Environmental Protection (DEP) Highlands Act rules. The third and final scenario assumes full conformance with the RMP by all Highlands Region municipalities. For all three scenarios, the Highlands Council estimated that approximately 230,000 acres in the Highlands Region are developable, representing 123,000 acres in the Planning Area and 106,000 in the Preservation Area.

The analysis reveals several key findings. Without the Highlands Act there is potential for approximately 47,600 new homes in the Highlands region, but if all 88 municipalities conform with the policies currently under consideration for the Regional Master Plan, that number drops to an estimated 12,300 homes. In addition, full compliance would reduce the amount of new impervious surface in the Highlands Region by 68%, compared to the results without the Highlands Act. The

build out analysis also indicates that, without the Highlands Act, 27% of the projected water demand and 15% of the wastewater utility demand could not be supported by the relevant watershed and utilities. Additionally, the analysis suggests that much of the undeveloped land currently zoned for commercial and industrial use is in environmentally constrained areas, outside of existing water and sewer service areas. As such, based on current population and infrastructure conditions, the development of many of these commercial and industrial lands is highly unlikely and does not reflect smart growth principles. Most importantly, the analysis indicates that the RMP policies when fully implemented in the Highlands Region allow for resource protection and smart growth development that is protective of Highlands's water quality and quantity.

John Weingart, Highlands Council Chairman, stated "The results of the build out analysis clearly demonstrate that the RMP we are currently considering will profoundly reduce the amount of new development that would have occurred without the Act. Of equal importance, the Plan enables the Council, working in conjunction with the Region's municipalities and counties to ensure that the new development that does take place is guided to the most appropriate locations and uses state-of-the-art environmental design and construction techniques." Weingart added, "The analysis we are releasing today shows that the Highlands Plan will not be a prescription for no further growth, but will be, as I believe the Legislature intended, a very restrictive, regional master plan that respects and protects the water resources and other environmental attributes of the Highlands."

The analysis conducted by the Highlands Council relies on extensive new and existing data that will benefit from further analysis and refinement over time. "The Highlands Council will work with municipalities during the RMP conformance process as they perform local build out analyses that will better reflect local conditions that cannot be assessed at a regional level." Eileen Swan, Executive Director, explained, "The Highlands Council is fully committed to partnering with our municipalities to refine the build out analysis by drawing upon their knowledge and experience concerning local circumstances."

#####

**RESOLUTION 2008-17**  
**NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL**  
**APPROVAL OF CONTRACT FOR PRINTING SERVICES**

**WHEREAS**, the Highlands Water Protection and Planning Act (Highlands Act) has created a public body corporate and politic with corporate succession known as the Highlands Water Protection and Planning Council (Highlands Council); and

**WHEREAS**, Section 6.g of the Highlands Act authorizes the Highlands Council to conduct its business as needed to effectuate the purposes of the enabling legislation; and

**WHEREAS**, the Highlands Council determined that a firm with expertise in offset printing is necessary to support the Highlands Council's administrative operations, more specifically, the printing of the Highlands Council's Regional Master Plan; and

**WHEREAS**, to address the above need, the Highlands Council prepared a Request for Proposal (RFP) to provide printing services, which was posted on the Highlands Council's website and noticed in newspapers of general circulation; and

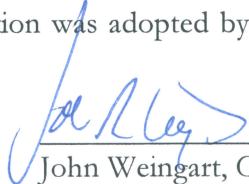
**WHEREAS**, numerous applicants submitted proposals and qualifications submittals prior to the deadline of May 12, 2008; and

**WHEREAS**, the Highlands Council staff evaluated the proposals and qualifications of the applicants and recommended that Quadra Graphics, Inc. is best suited to meet the needs articulated by the Highlands Council's RFP and further recommends that the Highlands Council authorize the Executive Director to enter a contract with Quadra Graphics, Inc. for printing services;

**NOW, THEREFORE, BE IT RESOLVED** by the Highlands Council that the Executive Director, or her designee, is hereby authorized to enter into a contract with Quadra Graphics, Inc. for an amount not to exceed \$ 27,570.

**CERTIFICATION**

I hereby certify that the foregoing Resolution was adopted by the Highlands Council at its regular meeting held on the 5th day of June, 2008.

  
\_\_\_\_\_  
John Weingart, Chairman

**Vote on the Approval of  
this Resolution**

	<u>Yes</u>	<u>No</u>	<u>Abstain</u>	<u>Absent</u>
Councilmember Alstede	✓	_____	_____	_____
Councilmember Calabrese	✓	_____	_____	_____
Councilmember Carluccio	✓	_____	_____	_____
Councilmember Cogger	✓	_____	_____	_____
Councilmember Dillingham	✓	_____	_____	_____
Councilmember Kovach	✓	_____	_____	_____
Councilmember Letts	✓	_____	_____	_____
Councilmember Pasquarelli	✓	_____	_____	_____
Councilmember Peterson	✓	_____	_____	_____
Councilmember Schrier	✓	_____	_____	_____
Councilmember Vetrano	✓	_____	_____	_____
Councilmember Way	✓	_____	_____	_____
Councilmember Whitenack	✓	_____	_____	_____
Councilmember Weingart	✓	_____	_____	_____

**RESOLUTION 2008-18**  
**NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL**  
**APPROVAL OF CERTAIN PLANNING ASSISTANCE GRANTS**

**WHEREAS**, the Highlands Water Protection and Planning Act (Highlands Act) has created a public body corporate and politic with corporate succession known as the Highlands Water Protection and Planning Council (Highlands Council); and

**WHEREAS**, the Highlands Act authorizes the Highlands Council to enter into any and all agreements or contracts, execute any and all instruments to carry out any power, duty or responsibility under the Highlands Act; and

**WHEREAS**, Section 18 of the Highlands Act authorizes the Highlands Council to make available grants and other financial and technical assistance to municipalities and counties in furtherance of the Regional Master Plan; and

**WHEREAS**, on February 28, 2008 the Highlands Council by Resolution 2008-4 authorized the initiation of a grant application process for Initial Assessment grants to municipalities within the seven Highlands counties in furtherance of Plan Conformance, in an annual amount not to exceed \$1,500,000; and

**WHEREAS**, the Highlands Council staff has reviewed the following grant applications and recommends approval by the Highlands Council;

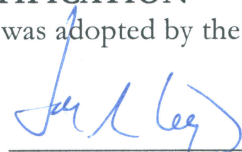
**NOW, THEREFORE, BE IT RESOLVED** by the Highlands Council that the Executive Director, or her designee, is hereby authorized to enter into grant agreements with the following municipalities for Initial Assessment Grants each in an amount not to exceed \$15,000:

Bedminster Township

Ringwood Borough

**CERTIFICATION**

I hereby certify that the foregoing Resolution was adopted by the Highlands Council at its regular meeting held on the 5<sup>th</sup> day of June, 2008.



\_\_\_\_\_  
John Weingart, Chairman

**Vote on the Approval of  
this Resolution**

	<u>Yes</u>	<u>No</u>	<u>Abstain</u>	<u>Absent</u>
Councilmember Alstede	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Calabrese	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Carluccio	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Cogger	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Dillingham	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Kovach	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Letts	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Pasquarelli	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Peterson	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Schrier	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Vetrano	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Way	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Whitenack	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Councilmember Weingart	<u>✓</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

**DRAFT – FOR CONSIDERATION AT THE JUNE 5, 2008  
MEETING OF THE HIGHLANDS COUNCIL**

**Carbonate Rock Program**

**Issue Overview**

The term karst describes a distinctive topography that indicates dissolution of underlying carbonate rocks (such as limestone and dolomite) by surface water or ground water over time. This dissolution process causes surface depressions and the development of such features as sinkholes, sinking streams, enlarged bedrock fractures, caves, and underground streams. Sinking streams and sinkholes direct surface water runoff into karst aquifers with little or no attenuation of any transported contaminants. In addition to ground water concerns, communities in karst areas must contend with safety concerns as sinkholes can have damaging effects to large manmade objects.

Understanding the relevant land use concerns in carbonate rock areas can facilitate planning and site design measures that may accommodate economically feasible development while avoiding health, safety and environmental risks. The Carbonate Rock Program seeks to map areas that are underlain by carbonate rocks to define Carbonate Rock Areas in the Highlands Region and to map those subwatersheds that drain directly to Carbonate Rock Areas. Then, through project review, applications for development in Carbonate Rock Areas shall be required to conduct geotechnical investigations to locate any potential karst features, and those in contributing subwatersheds must ensure that their projects will not contaminate ground waters in the Carbonate Rock Areas. Local development reviews and Highlands Project Reviews shall ensure that all potential hazards to public health and safety, structures and ground water quality are fully addressed and mitigated in the construction plans and subsequent approval process, with the maximum emphasis on nonstructural measures, including, but not limited to, avoidance of modifications to the karst features. These project reviews will facilitate the Council's maintenance of a karst feature inventory for the Highlands Region.

**Program Summary**

Implementation of a Carbonate Rock Program is necessary to address the potential problems that are common to karst areas. The program is not intended to restrict development yields, but rather to provide for the adoption of a site assessment and design process for karst areas that allows applicants, municipalities, counties, and the Council to identify any karst concerns at a site and to incorporate appropriate design features in order to minimize future sinkhole (or other karst feature) formation, damage to development, and the potential for ground water contamination.

The Highlands Council has utilized existing New Jersey Geologic Survey and United States Geological Survey data to map those areas of the Highlands Region that are underlain by carbonate rocks. These areas collectively are referred to as the Carbonate Rock Area. Since changes in the quantity, quality, and rate of discharge of surface water runoff from upslope lands can impair ground water resources in the Carbonate Rock Area, lands that drain surface water into the Area will be delineated by the Council using LiDAR topographic analyses or other topographic data where LiDAR data are not available. Development ordinances will be adopted by municipalities and counties within affected land areas that will serve to protect public health and safety from potential hazards

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**RMP Policies and  
Objectives Addressed**

common to karst areas.

**Policy 1K1.** To map and make readily available to the public areas of the Highlands Region that are underlain by carbonate rocks to define a Carbonate Rock Area.

**Policy 1K2.** To identify and delineate through local development review and Highlands Project Review land areas that drain surface water into the Carbonate Rock Area, as changes in the quantity, quality and rate of discharge of surface water runoff from upslope lands can impair ground water resources in the Carbonate Rock Area.

**Policy 1K3.** To establish and maintain inventories of karst features and subwatersheds that drain directly to Carbonate Rock Areas in the Highlands Region.

**Policy 1K4.** To ensure through Plan Conformance that municipalities in, or within subwatersheds draining directly to, the Carbonate Rock Area protect public health and safety and the quality of ground waters from inappropriate land uses and pollutant discharges.

**Objective 1K4a.** Identification of critical requirements for development review ordinances to be adopted by municipalities, and for county development review procedures regarding roads and stormwater systems at a minimum, with technical guidance.

**Objective 1K4b.** Applications for site plan or subdivision approval will include a multi-phased geotechnical site investigation (e.g., test borings, test pits, etc.) to locate any potential karst features and potential hazards to public health and safety, structures and ground water quality.

**Objective 1K4c.** Local development reviews and Highlands Project Reviews and requirements shall ensure that all potential hazards to public health and safety, structures and ground water quality, including but not limited to concentrated surface water flows that dissolve carbonate rock, are fully addressed and mitigated in the construction plans and subsequent approval process, with the maximum emphasis on nonstructural measures, including, but not limited to, avoidance of modifications to the karst features.

**Objective 1K4d.** Public works projects, including but not limited to water supply, sewerage, stormwater and transportation facilities, shall be constructed and maintained such that the potential for damage from karst features and the contamination of ground water are avoided.

**Objective 1K4e.** Highlands Project Reviews and requirements and local development reviews (where applicable) shall prohibit new land uses and facilities that constitute unacceptable risks of discharge due to karst topography where karst features have been identified, including but not limited to:

- Underground storage tanks
- Solid waste landfills
- Hazardous waste storage and disposal

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- Hazardous materials storage and handling

**Objective 1K4f.** High priority is given, and state agency coordination will be undertaken, with respect to management and remedial action regarding high risk land uses and facilities where karst features have been identified including, but not limited to:

- Known contaminated sites such as Superfund sites, brownfields, and landfills
- Hazardous waste storage, handling and disposal facilities
- Failing septic systems
- Existing underground storage tanks

**Identification of Critical Requirements for Development Ordinances**

The Highlands Council will identify critical requirements for development ordinances to be adopted by municipalities and counties that have land areas that are within or drain to the Carbonate Rock Area. Given that the best design solution to karst-related problems is dependant upon the actual subsurface conditions below a particular area, the preparation of one-design-fits-all-requirements for the Highlands Region is not appropriate. Performance standards provide flexibility regarding the specific actions to be taken to achieve local goals. Municipalities and counties will adopt development ordinances and performance standards that are consistent with the critical requirements identified by the Council.

**Development of Carbonate Rock Area Guidance Manual**

The Highlands Council will develop a technical guidance manual for use by municipalities and counties that have land areas that are within or drain to the Carbonate Rock Area. The guidance will contain requirements for a multi-phased geotechnical study to locate any potential karst features and potential hazards to public health and safety, structures, and ground water quality. The required multi-stage investigation will allow the applicant, as well as the municipality, county and Council, to predict problems and to estimate the associated costs based upon a growing body of knowledge for the area in question. The initial phase of work will be accomplished relatively inexpensively, yet the applicant can develop preliminary costs and evaluate the feasibility of the development. An existing guidance manual, developed by the North Jersey Resource Conservation & Development Council, will be used as one basis for the Council's work. The Council will also provide guidance to municipalities and counties regarding development of strategies with respect to public works projects in lands that are within or drain to the Carbonate Rock Area.

**Establishment and Maintenance of Karst Inventory**

The Highlands Council, working with municipalities and counties during the site plan and subdivision approval process, will establish and maintain inventories of karst features and subwatersheds that drain directly to Carbonate Rock Areas that are found in the Highlands Region.

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Lake Management Area

Issue Overview

The RMP provides for the protection and enhancement of Highlands Lakes and their environs, including Highlands lake communities. Overbuilt, damaged and poorly managed shoreland areas can result in the degradation of water quality, harm to the lake ecosystem, the decrease of natural aesthetic values, and the overall loss of property values for lake communities. Lakes can be harmed by pollutant sources in the watershed area draining to them. Most existing lake communities were built out prior to modern environmental requirements. Some have sewer systems, but many rely on septic systems (or even cesspools) on inadequately sized lots. Studies indicate that nearly every public lake (privately-owned lakes were not evaluated) in the Highlands is experiencing contamination, often including excessive bacteria and nutrients. Many lake communities have been experiencing intensifying land uses as the original buildings are torn down and replaced by larger structures. The Council seeks to identify redevelopment opportunities to improve community character and value, to both protect natural resources and to enhance and restore the quality of lake environments in the Region.

As discussed in Chapter 3 under the Land Use Capability Zone Map section, the Council has developed a Lake Community Sub-Zone. This sub-zone consists of patterns of community development that are within the Existing Community Zone within 1,000 feet of lakes. By definition, lakes within this sub-zone are developed or heavily developed lakes. Developed lakes face particular challenges as compared with undeveloped lake areas. They tend to be shallower in locations that receive sediment loadings, they often feature extensively hardscaped shorelines with limited natural vegetation, and they are frequently more eutrophic than undeveloped lakes. Developed lakes tend to receive higher phosphorous loads due to the fact that urban watersheds produce higher unit area phosphorous loads from stormwater, compared to lesser developed watersheds. In addition, most urban watersheds produce significant secondary phosphorous loads from a diverse range of sources including municipal wastewater discharges, failing septic systems, and sewage overflows.

Program Summary

This program seeks to protect, restore and enhance the water quality of Highlands lakes and to protect the unique character of Highlands lake communities. It facilitates land use and water resource planning on the basis of lake management tiers:

- A Shoreland Protection Tier consisting of an area measured 300 feet or the first public road perpendicular to the shoreline of the lake
- A Water Quality Management Tier consisting of an area measured 1,000 feet perpendicular from the shoreline of the lake, including the shoreland protection tier;
- A Scenic Resources Tier consisting of an area measured 300 to 1,000 feet perpendicular from the shoreline of the lake, scaled based upon the view distance from the opposite shoreline, and determined through the size and layout of the lake and the topography of the land area, with wider portions of lakes and greater topographic relief having longer view distances

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**RMP Policies and  
Objectives Addressed**

- A Lake Watershed Tier consisting of the entire land area draining to the lake.

In this Lakes Management program, the Council seeks to stringently protect lakes in the Protection and Conservation Zone from future development and to maintain those lakes in their natural condition. In the already developed lake areas of the Lake Community Sub-Zone, the underlying goal is to protect lake water quality and habitat from impacts resulting from the built environment and to ensure that any redevelopment maintains the character of existing Highlands lake communities. Thus, while the majority of the standards presented herein are stringent standards geared to new development in undeveloped lake areas, there are also standards that are common to both undeveloped and developed lakes (primarily in the Water Quality Management tier), and there are standards that are unique to the Lake Community Sub-Zone that solely address developed lake areas. With respect to these standards and on-going management issues related to lakes in the Lake Community Sub-Zone, the Highlands Council will coordinate with individual lake commissions, and with lake associations where they exist.

The program also includes a lake and dam protection and enhancement component and a homeowner's educational brochure and awards program component.

**Policy 1L1.** To establish a Lake Management Area around all Highlands Region lakes of greater than 10 acres size.

**Policy 1L2.** To establish tiers of lake management appropriate to management strategies that help protect lake water quality and community value from the impacts of present and future development.

**Objective 1L2a.** Lake management programs shall use the following management tiers around all Highlands Region lakes of greater than 10 acres in size:

- A Shoreland Protection Tier consisting of an area measured 300-foot or the first property line perpendicular from the shoreline of the lake;
- A Water Quality Management Tier consisting of an area measured 1,000-foot perpendicular from the shoreline of the lake, including the shoreland protection tier;
- A Scenic Resources Tier consisting of an area measured 300 to 1,000-foot perpendicular from the shoreline of the lake, scaled based upon the view distance from the opposite shoreline, and determined through the size and layout of the lake, with wider portions of lakes having longer view distances; and
- A Lake Watershed Tier consisting of the entire land area draining to the lake, through the evaluation of drainage areas using LiDAR topographic analyses or other topographic data where LiDAR data are not available.

**Policy 1L3.** To establish unique standards (as compared to lakes within the Protection and Conservation Zones) for the Lake Community Sub-Zone within the Existing Community Zone within 1,000 feet of lakes, particularly with respect to the Shoreland Protection Tier, to prevent degradation of water quality, harm to lake ecosystems, and promote aesthetic values within the Existing Community

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Zone.

**Policy 1L4.** To establish and implement management strategies to help protect lake water quality and ecosystem values from the impacts of present and future development for all lakes.

**Objective 1L4a.** Implementation of standards through local development review and Highlands Project Review regarding lake ecosystem and water quality in the Shoreland Protection Tier to address direct and proximate impacts upon the lake, including but not limited to shoreline modification and development (including limits to the hardscaping of shorelines using bulkheads, rip-rap and walls), docks, piers, boathouses, dredging, vegetation removal, and increased impervious cover. Pollutant discharges shall also be addressed, including the potential for contamination from septic systems, cesspools and other wastewater management systems within the tier that are failing or are inadequately designed and constructed. As such systems fail, landowners should be required to provide upgraded treatment (whether on-site or through public or community systems) to minimize pollutant movement to the lake. Standards for the Lake Community Sub-Zone and for the Protection and Conservation Zones may be distinct to the extent necessary to recognize the existence of significant development within the Lake Community Sub-Zone.

**Objective 1L4b.** Implementation of standards through local development review and Highlands Project Review regarding land use compatibility and water quality in the Water Quality Management Tier, to prevent or minimize continuous pollutant sources that can contribute pollutants overland or through ground water to the lake from greater distances than the Shoreland Protection Tier.

**Objective 1L4c.** Implementation of standards through local development review and Highlands Project Review regarding the protection of visual and scenic resources in the Scenic Resources Tier, including but not limited to requirements for vegetative screening of buildings, building height limitations, and limits on tree and understory removal for reasons other than public health and safety or as the minimum necessary to make reasonable use of the designated building envelope for the parcel proposed for development. Standards for the Lake Community Sub-Zone and for the Protection and Conservation Zones may be distinct to the extent necessary to recognize the existence of significant development within the Lake Community Sub-Zone.

**Objective 1L4d.** Implementation of lake restoration plans to restore, protect and, where possible, enhance lake water quality through management of pollutant sources in the Lake Watershed Tier, including but not limited to the development, adoption and implementation of TMDLs by NJDEP pursuant to the Water Quality Management Planning Rules, N.J.A.C. 7:15. On-going coordination will be undertaken with the Greenwood Lake and Lake Hopatcong Commissions as well as individual lake associations, as appropriate, regarding lake management issues.

**Policy 1L5.** To require that conforming municipalities adopt and implement for all lakes the standards applicable to the Shoreland Protection and Water Quality Management Tiers; the standards applicable to the scenic resources tier shall be adopted and implemented for all public lakes (i.e., with shorelines that are not

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entirely privately-held and managed through a lake association), and for privately-held lakes to the extent feasible under law, recognizing the existence of previously approved lake community development plans.

**Objective 1L5a.** Shoreland Protection and Water Quality Management Tier requirements shall apply to all new development, regardless of lake ownership.

**Objective 1L5b.** Scenic Resource Tier requirements shall apply to all lakes with public access and to lakes with no public access that are not entirely managed by a single homeowner or lake community association. For lakes that are privately-held and managed by a single homeowner or lake community association, the scenic resource tier requirements shall be voluntary.

**Policy 1L6.** To require that conforming municipalities develop and adopt lake restoration plans, with sufficient input from lake community residents and landowners, for each of the municipality's developed lakes that has been identified as water quality impaired, to include watershed delineation, description of point and nonpoint sources of pollution in the watershed, lake monitoring schedules, existing and proposed in-lake management techniques, and recommended watershed best management practices. TMDLs adopted by the NJDEP to address known pollution problems may be used as lake restoration plans. For lakes that are privately-held and managed by a single homeowners or lake community association, the municipality may require that the association share in or assume the costs of developing such plans.

**Objective 1L6a.** Provide Lake Management Plan guidance to municipalities that includes watershed delineation mapping methodology, point and nonpoint source pollution references, example lake monitoring schedule with monitoring goals and methods, existing successful in-lake management techniques, and best management practices.

**Objective 1L6b.** Septic systems and cesspools on small lots in close proximity to lakes shall be replaced with upgraded individual treatment systems, communal septic systems or community-based wastewater systems wherever feasible and cost-effective, with the selection of replacement technology to ensure minimal secondary impacts, including potential reductions in net water availability, maximum environmental benefit, and financial viability. Community-based systems should not provide for additional land development capacity except for exempt lots within that existing lake community that are not environmentally constrained, or for areas that are otherwise permitted to have wastewater service under the goals, policies and objectives in Part 2, Subpart d, Sustainable Development and Water Resources.

**Policy 1M1.** To provide guidance regarding evaluation of and standards for lake character and aesthetics that shall be adopted by municipal ordinance for application to public lakes, or that may be voluntarily adopted by privately-owned lake communities within their by-laws and regulations.

**Policy 1M2.** To encourage increased public access to publicly-owned lakes, within the lake's carrying capacity and while maintaining the lake character.

**Policy 1M3.** To discourage or control teardowns that result in altered lake community character, and the potential loss of historic and cultural values, and to

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encourage community-supported limitations in lot coverage and building height for new construction.

**Policy 1M4.** To establish and implement performance and development standards through local development review and Highlands Project Review for shoreline uses which achieve compatibility among shoreline activities and nearby neighborhoods.

**Policy 1M5.** To encourage municipalities to utilize recreational sites as opportunities to educate the public to the ecological value of lake environs.

**Policy 1M6.** To encourage municipalities to explore appropriate means to provide public recreation at the shoreline and on the water while ensuring retention of opportunities for passive recreation (e.g., natural areas, open space).

**Policy 1N1.** To develop innovative financing and administrative mechanisms for the maintenance and operation of public and private dams and lakes, where those dams and lakes provide a continuing public or private purpose.

**Policy 1N2.** To restore appropriate habitats in the lake beds and to prevent, mitigate or restore downstream habitats from damages due to lake drainage, when dams are allowed to fail or are deliberately breached or removed.

**Shoreland Protection  
Tier**

The Highlands Council will establish standards regarding lake ecosystem and water quality in the shoreland protection tier to address direct and proximate impacts upon the lake. Such standards include, but are not limited to, the following:

1. Alteration of the shorelines shall be limited to the minimum disturbance necessary to provide for water dependent recreational uses such as beaches, docks and boat houses, generally limited to 10% or 25 feet of the shoreline of any parcel proposed for development, but subject to modification in the Lake Community Sub-Zone, to limitations more appropriate to specific lakes
2. Where shorelines have already been hardscaped with bulkheads, rip-rap, or walls in the Lake Community Sub-Zone, encourage the creation of a vegetated filter strip along the shoreline to attenuate stormwater flow and minimize the potential for shoreline erosion
3. Where there is little or no wave action, reeds and other wetland species that are below the high water mark shall be preserved or restored. In the Lake Community Sub-Zone, permit and encourage the control and where necessary removal of algae and non-native invasive aquatic weeds that cause nuisance conditions for lake users.
4. Existing shoreland vegetation within 50 feet of the shoreline shall be protected and preserved except for a minimum area permitted, established through municipal development regulations, for water dependent recreational facilities. Limitations should be more stringent for the first 25 feet. Restoration of native vegetation shall be required where development is proposed on property with existing disturbed areas within 25 feet of the shoreline.
5. No new structure other than water dependent recreational facilities shall be constructed within fifty (50) feet of the shoreline;
6. In all zones, the width and length of piers and docks shall be controlled in

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municipal development regulations to achieve the minimum disturbance of shoreline, shoreline vegetation and wetlands vegetation possible with due consideration to safety, including provisions for piers and docks held in common to reduce the total number of new docks and piers.

7. Boat lifts, where used in any zone, shall be encouraged as a means of providing more light to the waters below and shall elevate boats a minimum of one foot above high water.

Development adjacent to Highlands lakes, which are Highlands Open Waters, shall include a protection buffer of 300 feet from the edge of the Highlands Open Water feature, or a lesser buffer if allowed based on RMP policies (see GOAL 1 D), and all development shall comply with buffer standards which provide for the protection of Highlands Open Waters. Structures or other land improvements existing within a protection buffer before August 10, 2004 may remain, provided that the area of disturbance is not increased other than through Highlands Act exemptions or waivers.

**Water Quality  
Management Tier**

The Highlands Council will establish standards regarding land use compatibility and water quality in the water quality management tier to prevent or reduce continuous pollutant sources that can contribute pollutants overland or through ground water to the lake from greater distances than the shoreland protection tier. Such standards include, but are not limited to, the following:

1. All parcels of land proposed for development shall be improved with landscape or garden elements which retain storm water
2. Require for all new development (and encourage for existing development in the Lake Community Sub-Zone), that runoff from roofs, driveways and patios shall be directed into landscape or garden elements which retain and filter storm water, or to infiltration practices
3. Green roofs are strongly encouraged in all zones to clean and slow the release of storm water
4. To the extent possible, impervious surfaces in all zones should drain away from the shoreline
5. Stormwater should be directed to a stormwater management train that cleans and reduces the rate of runoff to the maximum extent possible in all zones
6. To the maximum extent practicable in all zones the stormwater management train should maximize the use of swales with natural vegetation or constructed wetlands and discharge through a constructed wetland or other channel that maximizes aeration and cleaning of the water
7. Stormwater improvements shall be designed in accordance with NJDEP regulations at N.J.A.C. 7:8 or the municipal stormwater management ordinance or regional stormwater management plan adopted as part of an Areawide Water Quality Management Plan where more stringent
8. Where sufficient land is available in all zones, natural swales, constructed wetlands, and other stormwater facilities shall be used
9. To the extent possible in all zones, landscape or garden elements which retain storm water shall be designed so that during larger storms, the water is released primarily through overland sheet flow across a vegetated, naturally landscaped area
10. The discharge of stormwater shall, wherever feasible in all zones, be through

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sheet flow which may require the construction of an outlet that disperses the water over a substantial distance at a constant elevation so that water sheet flows over the top

11. Septic systems for new development within the Lake Management Area must comply with the septic system density requirements, for the particular Land Use Capability Zone, with septic systems no closer to the lake than the Highlands Open Water Buffer or 150 feet, whichever is greater; clustering shall be permitted where it results in a greater buffer between the lake and the septic systems than would be feasible without clustering
12. In the Lake Community Sub-Zone, require that septic systems and cesspools on small lots in close proximity to lakes, be replaced with upgraded individual treatment systems, communal septic systems, or community-based wastewater systems wherever feasible and cost-effective, with the selection of replacement technology to ensure minimal secondary environmental impacts, maximum environmental benefit, and financial viability
13. Where the existing density of septic systems within a Lake Community Sub-Zone is known or strongly suspected to be a significant contributor of lake pollutants, community wastewater treatments shall service parcels of lands within the Lake Community Sub-Zone wherever feasible in order to eliminate pollution of lakes by discharges from septic systems. Community-based systems should not provide for additional land development capacity except for exempt lots within that existing lake community that are not environmentally constrained, or for areas that are otherwise permitted to have wastewater service. The systems must be designed to minimize secondary environmental impacts, including potential reductions in net water availability.

The Highlands Council will work with other State agencies and counties to create a Highlands Storm Water Management Improvement Program comprised of:

1. A grant program in support of studies of existing stormwater systems by Highlands communities with regard to existing capacity
2. A Bibliography of stormwater management literature related to retrofitting stormwater management systems to reduce runoff and improve the quality of runoff. The Bibliography shall include information with regard to the use of landscape installation and maintenance to reduce pollutants.
3. A Highlands Council awards program in conjunction with Highlands municipalities to encourage land owners to participate in stormwater system remediation.

**Scenic Resources Tier**

The Highlands Council will establish standards regarding the protection of visual and scenic resources in the Scenic Resources Tier from development or redevelopment (including redevelopment within the Lake Community Sub-Zone) that include, but are not limited to, the following:

1. Building heights should be limited so that the top of a building does not exceed thirty-five (35) feet except in Designated Centers where a greater height is in keeping with existing community design
2. All buildings shall be screened from view from lake by trees and other natural plant material
3. The exteriors of all new or redeveloped buildings shall be finished with

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materials which are compatible with a natural or historical character of the Highlands Region

4. New buildings shall be prohibited within areas which are Severely Constrained Slopes and Moderately Constrained Slopes
5. Clearing of trees should be limited to the minimum area needed for the footprint of a building
6. Outdoor lighting should be provided by cut-off fixtures and be directed away from the shoreline

**Implementation of Lake Restoration Plans**

The Highlands Council will encourage municipalities in the Lake Management Area to implement lake restoration plans to restore, protect and, where possible, enhance lake water quality through management of pollutant sources in the lake watershed (see also the *Water Quality Restoration Program*). The plan shall be developed with sufficient input from lake community associations and individual residents. TMDLs adopted by the NJDEP to address known pollution problems may be used as lake restoration plans. The restoration plan will include, but not be limited to the following elements:

1. Delineation of the lake's watershed
2. Description of point and nonpoint pollution sources in the watershed
3. Lake monitoring schedules
4. In-lake management techniques
5. TMDLs adopted by the NJDEP to address known pollution problems

**Lake and Dam Management**

The Highlands Council will implement measures to encourage the maintenance of public and private lakes and the restoration of lake beds and downstream areas when lakes are drained. Such measures may include, but are not limited, to the following:

1. Creation of Highlands Financing and Administrative Handbook for dam and lake maintenance and operation addressing creative public and private financing programs as appropriate for the lake or dam ownership.
2. Preparation of a Best Practices Manual for dam and lake maintenance
3. Preparation of a Best Practices Manual for dam removal, including the protection of downstream resources from the migration of sediments and other pollutants, and the establishment of stable terrestrial or wetland ecosystems in former lake beds
4. Provision of grants in aid to establish demonstration model dam and lake programs for publicly owned dams

**Education and Awards Program**

The Highlands Council will develop a Lakes Landscape Handbook and awards program for waterfront restoration and environmentally friendly landscaping.

In both the 300-foot and 1,000-foot tiers, landscaping and yard maintenance can make a contribution to improving lake quality. The handbook will focus on how-to material for landowners to illustrate how they can replace lawns and restore beach areas to a natural condition that is attractive and enhances the property value. Having an awards program that recognizes environmentally sensitive restoration will be an incentive for people to undertake these projects and advertise for the program.

The Highlands Council will coordinate with NJDEP, the landscape professional and hardware and garden centers to promote the use of fertilizers for lawn usage

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that do not contain phosphorous. Ideally, the sellers will not carry the lawn products that contain phosphorous, thus making unwitting usage very difficult. These sellers can also promote wise waterfront landscaping and maintenance.

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**Land Preservation**

**Issue Overview**

Public and private investment in land preservation over the years has protected nearly a third of the Highlands Region as perpetual open space. Maintaining the land in a natural condition is necessary to preserve ecosystem integrity and protect drinking water supplies. The Highlands Act contemplates preservation of additional open space resources in order to protect and enhance ecosystem function, protect drinking water resources, and preserve natural and recreational lands.

The Highlands Region contains some of the most important forests in the state. These forests are vitally important to every element of the Highlands Region, including the natural and the built environment. Forests provide essential ecosystem functions, including surface water filtration, which is important to protecting essential drinking water supplies for the Highlands Region and for the state as a whole. Forests serve as habitat for plants and animals and are critically important to the maintenance of biodiversity in one of the most populous states in the nation. When managed for sustainable use, forests can be as source of renewable wood products. Forests are a defining visible and functional feature of the Highlands and constitute a majority of critical habitat in the Region.

Agriculture is another important part of the essential character of the Highlands Region's culture, landscape, and economy. It provides important economic benefits to the Highlands Region in the form of agricultural production and agri-tourism, provides food to area residents using less energy than would be required to import produce from other regions and helps maintain the Highland's rural character.

Programs specifically addressing Agriculture, Forestry, and Historic, Cultural, Archaeological, and Scenic resources as economic landscapes are outlined in the *Sustainable Agriculture Program*, the *Forest Resource Management and Sustainability Program*, and the *Historic, Cultural, Archaeological, and Scenic Program*. This program addresses land preservation in the Highlands Region holistically.

**Program Summary**

One of the fundamental aspects of the Highlands Act is the emphasis on land preservation to ensure that public funds and other resources are focused on protection of critical Highlands resources. In order to accomplish this purpose, the case for land preservation and critical issues surrounding preservation must be addressed by the Highlands Council. The Council must create the criteria for the identification of critical lands, the priorities for land preservation, implementation strategies for land preservation and stewardship, and a process to ensure that sufficient financial and institutional resources are available for land preservation and stewardship.

Successful land preservation requires four basic ingredients—targeting of land acquisition priorities based on a sound rationale, buyers with funding or other incentives, sellers willing to accept a buyer's offer, and stewardship of the acquired open space. (Management of working farms and forests are addressed in the *Sustainable Agriculture Program* and *Forest Resource Management and Sustainability Program*.) Additionally, a federal, State, and county interagency working group will aid in coordinating land acquisition activities, identification of high priority lands,

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**RMP Policies and  
Objectives Addressed**

stewardship initiatives, and funding needs.

**Policy 1A1.** To meet the goal for the Preservation Area to “preserve extensive and, to the maximum extent possible, contiguous areas of land in its natural state,” and to “protect the natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forests.”

**Policy 1A2.** To limit human development in the Forest Resource Area in the Preservation Area in order to protect and enhance forest resources, critical habitat and the quantity and quality of water resources.

**Objective 1A2b.** Implementation of regulations through Plan Conformance which limit permissible uses within the Forest Resource Area to maintenance of pre-existing uses and restoration of impaired forest areas, where relief from strict adherence to these standards shall be permitted only upon approval of a forest

**Objective 1A2c.** To prohibit through local development review and Highlands Project Review the deforestation of lands within the Forest Resource Area of the Preservation Area for human development except where authorized as an exemption by the Highlands Act.

**Policy 1A3.** To promote the priority use of available funding to acquire forested lands within the Forest Resource Area.

**Policy 1A4.** To assign land within the Forest Resource Area a high priority for fee simple and easement acquisition.

**Policy 1H1.** To identify and maintain an inventory of private and public open space land holdings and conservation easements in the Highlands Region.

**Objective 1H1a.** Create a coordinated and continually updated open space database that includes preserved lands and stewardship activities by municipal, county, state, and federal agencies, non-profit organization, and individuals.

**Policy 1H2.** To serve as a regional clearing house for information regarding preservation programs and funding sources for land acquisition, restoration, and enhancement; technical assistance; and long-term stewardship of preserved lands, for public and private organization in order to maximize land preservation efforts in the Highlands Region.

**Objective 1H2a.** Promote the coordination by appropriate federal, state, county, and municipal land preservation agencies of open space acquisition activities under new or existing programs, including identification of high priority lands for preservation, land stewardship initiatives, and funding needs.

**Objective 1H2b.** Create a landowner assistance program to provide technical assistance and guidance with regard to land preservation options and the Highlands Development Credit Program to owners of that which should not be developed in order to protect water resources and environmentally sensitive resources.

**Objective 1H2c.** Implement and support the implementation of new, innovative, and alternative methods and programs of land preservation that are deemed most appropriate for the Highlands Region.

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**Policy 1H3.** To develop and maintain a confidential inventory of open space lands and farmland within the Conservation Priority Areas and Agricultural Priority Areas which should be preserved.

**Objective 1H3a.** Include within the confidential inventory, those lands which are 5 and 10 year priorities for land acquisition in the Highlands Region in order to determine the cost of implementing the RMP.

**Objective 1H3b.** Coordinate Highlands Region priority open space preservation and stewardship activities with the NJDEP Green Acres Program and the State Agriculture Development Committee with regard to land acquisition and preservation priorities in the Highlands Region.

**Objective 1H3c.** Coordinate with NJDEP, the review of applications for Green Acres diversions for consistency with the RMP.

**Policy 1H4.** To advocate for the establishment of dedicated sources of funding for the preservation and stewardship of open space lands in the Highlands Region including, but not limited to:

1. Dedicated sources of State revenue to be used for open space preservation in the Highlands Region, such as coordination with the NJDEP Green Acres Program for reauthorization of the Garden State Preservation Trust Fund, including a dedicated fund for the anticipated acquisition needs of the Highlands Region, and enactment of a water user fee.
2. Dedicated sources of State revenue for a reserve fund to capitalize the Highlands Development Credit Bank.
3. An on-going program to secure significant federal funding in support of land acquisition and stewardship efforts in the Highlands Region including, but not limited to, additional appropriations under the Federal Highlands Conservation Act.
4. An on-going program to seek funding for land acquisition and stewardship from unique sources of funding such as gifts, endowments, and donations, and federal and state court-imposed fines for natural resource damages.
5. A dedicated source of revenue for the preservation and stewardship of open space through a surcharge on public water supply system rates for any system that directly or indirectly relies on Highlands water resources for more than 5 percent of their annual needs.
6. A Highlands Conservation Trust to secure monies from alternate sources of funding to assist in land acquisition and stewardship.

**Policy 1H5.** To encourage municipalities and counties to establish and fund open space acquisition and stewardship programs or to expand existing open space and stewardship programs.

**Policy 1H6.** To support legislation to extend the dual appraisal methodology used by the Garden State Preservation Trust for lands in the Highlands Region beyond the June 30, 2009 expiration date to a minimum of five years beyond the

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adoption of the RMP.

**Policy 1H7.** To identify and designate a Special Environmental Zone in the Preservation Area where development shall not occur in order to protect water resources and environmentally sensitive lands and which shall be permanently preserved through use of a variety of tools including, but not limited to, fee simple acquisition, easement acquisition, transfer of development rights programs, and development regulations.

**Objective 1H7a.** Create and maintain a Special Environmental Zone based upon RMP Conservation Priority Area rank and indicators designed to identify lands with the highest water resource and environmental integrity.

**Objective 1H7b.** Adopt and enforce development regulations which prohibit the development of those portions of a parcel of land which are located within a Special Environmental Zone.

**Objective 1H7c.** Require through Plan Conformance, local development review, Highlands Project Review, and NJDEP review under N.J.A.C. 7:38 that development shall not occur within a Special Environmental Zone. In any Special Environmental Zone, any exemption or waiver issued under the Highlands Act shall be conditioned upon a determination that the State or local government unit has exhausted all means for the permanent preservation of these lands through use of preservation tools including, but not limited to, fee simple acquisition, easement acquisition, and transfer of development rights.

**Objective 1H7d.** Prepare and deliver documents to appropriate land preservation/acquisition agencies identifying parcels of land wholly or partially within a Special Environmental Zone.

**Objective 1H7e.** Implement the Highlands Development Credit Program as a means of permanently preserving land in a Special Environmental Zone.

**Policy 1J1.** To promote the creation of a Forest Preservation Easement Program for the Highlands Region, eligible for use through the State Agriculture Development Committee or the Green Acres Program.

**Objective 1J1a.** Achieve maximum preservation of working forests through the Forest Preservation Easement Program.

**Policy 3A4.** To promote farmland preservation and limit non-agricultural uses within the Agricultural Resource Areas and accord priority to the preservation of agricultural lands within Agricultural Priority Areas, through fee simple acquisition, easement acquisition, Transfer of Development Rights (TDR) and other agricultural land conservation techniques.

**Objective 3A5a.** Implement regulations requiring that cluster or conservation proposed within an Agricultural Resource Area support the preservation avoid conflicts with agriculture, maintain and enhance the sustainability viability of the agricultural industry, protect Important Farmland resource management and protection requirements of the RMP.

**Identification of Critical  
Lands**

An important factor in protecting environmentally critical areas is identifying existing preserved lands in the Highlands Region and the resources that are already protected. A total of 274,675 acres of the Highlands Region are primarily

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preserved open space or preserved farmland in a combination of federal, State, county municipal, nonprofit and private ownership. These lands represent a diverse catalog of the public and private land and water areas available for recreation or presently protected as open space. Developing a comprehensive open space dataset throughout the Highlands Region is a highly complex undertaking. There are over a dozen agencies and organizations which contribute to open space identification and each has its own structure for recording open space data to meet its business model. Time, accuracy, precision and completeness differences all play a role in making the assemblage a difficult and imprecise product. The Highland Council has acquired available data and will work with all agencies and organizations who contribute to open space recordkeeping to develop a data standard which meets each agencies' or organizations' individual needs while at the same time improving open space inventories at a regional scale. The figure *Conservation Priority Area* displays the relative value of the important critical resources in order to provide a prioritization mechanism for the future land preservation activities in the Highlands Region.

**Establishment of Land  
Preservation Priorities  
and a Special  
Environmental Zone**

In order to protect the important critical resources of the Highlands Region, preservation of the lands in which these resources are located must be encouraged and funded. However, since funds are not limitless, the resource values of lands must be ranked in terms of their importance and long-term viability. In order to determine high priority areas in the Highlands Region for preservation, the Council used the results of the Resource Assessment to identify and prioritize those lands within the Highlands Region which have the highest water and ecological resource values. These values are based on a combination of indicators using methodologies discussed elsewhere in the RMP which measure the quantity and quality of regional resources such as: watershed conditions, open waters, riparian areas, prime ground water recharge areas, forests, critical habitat, and steep slopes. Moreover, existing protected lands, showing the historic pattern of land preservation activities in the Region, will be identified and integrated with the ecological resource value to identify priority areas for conservation. This prioritization process will enable the Council to identify a confidential inventory of open space lands and farmland within the *Conservation Priority Area* and the *Agricultural Priority Area* and a Special Environmental Zone in the Preservation Area to respond to Section 12.a of the Highlands Act, which are areas that should not be developed due to their importance for water resource and ecological protection. The Highlands Council used its identification of *Conservation Priority Area* and other data to identify the Special Environmental Zone. Preservation of the Special Environmental Zone will occur through a variety of regulatory and preservation programs, including coordination with NJDEP regarding both. The figure *Special Environmental Zone* displays the approximately 19,000 acres within the Special Environmental Zone as identified by the Highlands Council.

**Implementation of  
Strategies for Land  
Preservation by  
Maximizing Current**

One of the fundamental aspects of the Highlands Act is the emphasis on land preservation to ensure that public funds and other resources are focused on protection of critical Highlands resources. The *Land Preservation and Stewardship Technical Report* identifies 10 federal, State, county, municipal, and nonprofit land

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**Land Preservation  
Funding Programs**

preservation funding programs. The Highlands Council will collaborate and coordinate with agencies (in particular the NJDEP Green Acres Program, the NJ Department of Agriculture, and State Agriculture Development Committee), local governments, and local organizations to target and preserve natural and agricultural spaces in support of the RMP.

**Implementation of  
Strategies for Land  
Stewardship by  
Maximizing Current  
Land Stewardship  
Funding Programs**

The *Land Preservation and Stewardship Technical Report* also identifies 23 federal, State, county, municipal, and nonprofit conservation and stewardship funding programs. The Highlands Council will collaborate and coordinate with agencies (in particular the NJDEP Green Acres Program, the NJ Department of Agriculture, and State Agriculture Development Committee), governments, and local organizations to properly manage the preserved natural and agricultural spaces in support of the RMP. This effort is necessary to ensure that the natural resources targeted for acquisition are not later lost through insufficient stewardship.

**Establishment of  
New/Alternative/  
Innovative Land  
Preservation Programs**

The Highlands Council will examine and assess for use in the Highlands Region a broad range of options and programs developed by other states to create incentives for landowners to keep their properties in agriculture, working forests, or natural condition, voluntarily. The following are examples of some of the programs for review by the Council. This list is not exhaustive but is the basis for future research.

- Conservation Tax Credits
- Installment purchase Options/Agreements
- Property Tax Relief
- Next Generation Farmland Acquisition Program
- Statewide or Regional Local Land Trust/Fee Simple
- Term Conservation Easements
- Land Preservation Tontines
- Agricultural Conservation Pension
- Mandatory Source Water Protection Programs for Water Purveyors

Additionally, the Highlands Council will collaborate with NJDEP and SADC to develop an adequate method to preserve forested lands through easements to allow them to remain in private ownership and properly maintained through woodland management, in addition to the Transfer of Development Rights mechanism established through the Highlands Act. Given the fact that the Highlands Region is over 50% forested and maintaining forest land is important to protecting water quality, a program specifically for purchasing forest land easements should be available.

All of these programs are further detailed in the *Land Preservation and Stewardship Technical Report*.

**Establishment of  
New/Alternative/Innovative  
Stewardship  
Programs**

For long-term sustainability of the natural and agriculture resources in the Highlands Region, there must be proactive management of deer populations and other non-native species, reduction in the rate of forest fragmentation and the creation of incentives for landowners to retain property in its natural or agricultural state. The Highlands Council will collaborate with the NJDEP and the NJDA to develop these management techniques and incentives. Additionally,

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**Development of Open  
Space/ Conservation  
Design Standards**

intrinsic values for forests and agriculture (including water quality and water supply protection) should be established to enhance the justification for preservation of such lands.

Not all lands that are considered critical can be preserved because of limited funds and other factors. As a result, techniques and systems that enable limited growth and the preservation of open lands are needed. The Highlands Council will develop Open Space/Conservation Design development layout standards that support the RMP and which take advantage of, but are not limited to, techniques such as clustering and lot-size averaging.

**Identification of Willing  
Sellers**

The Garden State Preservation Trust legislation requires that direct acquisitions by Green Acres and the State Agricultural Development Committee be from willing sellers. The Highlands Council will develop an outreach and education program for Highlands landowners to help them take advantage of funding opportunities and incentives available for land preservation.

**Establishment of a  
Land Preservation and  
Stewardship Technical  
Assistance Program**

The Highlands Council will establish a technical assistance program for land preservation and stewardship. For example, 29 Highlands municipalities do not have open space trust funds and the municipalities and counties that do may not be maximizing their potential; the Council can provide assistance in creating or amending their open space trust funds. Additionally, land acquisition by fee purchase or by easement is a major tool to protect natural resources and agricultural lands. Guaranteeing that these resources remain intact and viable is an overarching responsibility of the preserved landowner and easement holder. The Highlands Council will establish a program to aid in the development of federal, State, municipal, nonprofit, and individual stewardship plans which will include, but not be limited to, baseline documentation, monitoring, landowner/user relations, and enforcement.

**Establishment of  
Dedicated Sources of  
Funding for Land  
Preservation and  
Stewardship in the  
Highlands Region**

The Highlands Council supports a dedicated, directed, and stable source of acquisition and stewardship funding. Additionally, the Council supports the reauthorization of the Garden State Preservation Trust Fund and efforts to create a statutory funding mechanism for water quality and watershed land acquisitions. In recognition of this support, the Highlands Council will explore, in addition to existing funding sources, securing other stable, dedicated sources of funding such as:

- a Highlands water user fee;
- a reserve fund to capitalize the Highlands TDR Program;
- a program to secure significant federal funding in support of land preservation and stewardship;
- a program to seek funding for preservation and stewardship from unique funding sources;
- a surcharge on public water supply systems rates that use Highlands water; and
- A Highlands Conservation Trust to secure funds from alternate funding sources.

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**Wastewater System Maintenance**

**Issue Overview**

All development requires some form of wastewater treatment system. All forms of wastewater treatment systems require proper operation and maintenance (O&M). Unfortunately, most homeowners do not properly maintain their septic systems and many do not operate them properly, leading to failures that put human health and the environment at risk. Local Health Boards have the authority to require correction of failures, but maintenance is more cost-effective. NJDEP has proposed that all municipalities have some form of septic system maintenance program, but cannot mandate such programs where the municipality decides not to participate in Wastewater Management Plans. Only a few Highlands municipalities currently have such programs, and smaller municipalities will likely need assistance to implement septic system maintenance programs. Finally, in some cases, primarily in older communities, homes do not have modern septic systems but instead rely on cesspools or even less effective discharge methods. In all cases, increased septic system density and proximity to sensitive resources (e.g., wells, surface waters) increase the importance of proper O&M.

Community-based systems, such as communal septic systems and small wastewater treatment systems, are regulated by NJDEP under the NJPDES program to ensure proper O&M, but not all such system owners are financially and technically capable of ensuring that their systems routinely meet NJDEP requirements through decades of use. Moreover, NJDEP is prohibited from requiring that such facilities have co-permittees to ensure long-term compliance. While NJDEP can take enforcement action regarding its permit conditions, financial failure of the system owner is not easily remedied.

Wastewater systems operated by utility authorities and municipal government are generally well-financed through fee-based programs that have a sufficient user base. In addition, NJDEP permitting and enforcement can provide sufficient surety of proper O&M. Accordingly, the RMP does not address O&M for these systems, but the Council will coordinate with the NJDEP to determine where existing systems are potential water quality concerns and to address such issues through NJDEP regulation.

**Program Summary**

This program helps to ensure that on-site and small community wastewater treatment systems are properly maintained, using methods that complement NJDEP's regulatory programs and requirements. It is focused primarily on septic system maintenance and on small community-based systems (e.g., package plants).

Regarding septic systems, the primary purposes are: (1) to ensure that their O&M minimizes the potential threat to public health and the environment, (2) to extend the functioning life-cycle of septic systems, and (3) to reduce the potential need for creation or expansion of sewer systems into non-sewered areas. In many cases, the expansion or creation of sewerage to address septic system failures or excessive density is very costly and could increase demand for other development in inappropriate areas.

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**RMP Policies and  
Objectives Addressed**

Regarding the community on-site systems, the primary purposes are: (1) to ensure that the systems retain their viability through proper O&M, and (2) to prevent the need for a transfer of system ownership due to fiscal collapse.

**Objective 1L6b** Septic systems and cesspools on small lots in close proximity to lakes shall be replaced with upgraded individual treatment systems, communal septic systems or community-based wastewater systems wherever feasible and cost-effective, with the selection of replacement technology to ensure minimal secondary impacts, including potential reductions in net water availability, maximum environmental benefit, and financial viability. Community-based systems should not provide for additional land development capacity except for exempt lots within that existing lake community that are not environmentally constrained, or for areas that are otherwise permitted to have wastewater service under the goals, policies and objectives in Part 2, Subpart d, Sustainable Development and Water Resources.

**Objective 2K3c.** Prohibit new, expanded or extended public wastewater collection and treatment systems and community on-site treatment facilities within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2 and 4, the project must maximize the protection of sensitive environmental resources such as Open Water buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat Areas. For approvals regarding part 3, the project must avoid disturbance of Open Water buffer areas, Riparian Areas, Steep Slopes and Critical Habitat Areas, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The choice of extension or creation of systems shall follow the requirements in Objective 2K3d (2 and 3). The applicable purposes are:

1. to address a documented existing or imminent threat to public health and safety from a pattern of failing septic systems (where the failing systems cannot reasonably be addressed through rehabilitation or replacement) or highly concentrated septic systems, where the threat is of sufficient scale to justify a public wastewater collection and treatment system or community on-site treatment facility and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. To address other issues of public health and safety, such needs shall have highest priority for allocation of existing system capacity;
2. to serve a designated Highlands Redevelopment Area;
3. to serve a cluster development that meets all requirements of Objective 2K3d; or
4. to avoid the taking of property without just compensation.

**Objective 2K3d.** Clustered development served by a public wastewater collection and treatment system or community on-site treatment facility within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area shall be approved only if the

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following conditions are met:

1. The development impacts are otherwise consistent with the requirements of the RMP, including provisions for mandatory clustering in Agricultural Resource Areas;
2. Extension of an existing public wastewater collection and treatment system will occur only where the cluster development is within or immediately adjacent to an Existing Area Served with available capacity;
3. Creation of a community on-site treatment facility will occur only where such development is not within or immediately adjacent to an Existing Area Served with available capacity, where the proposed system is designed, permitted and constructed at a capacity limited to the needs of the clustered development, and where the system does not create the potential for future expansion into areas that are not the subject of cluster developments immediately adjacent to the initial cluster served;
4. The cluster development preserves at least 80 percent of the project area in perpetuity for environmental protection or agriculture purposes, and to the maximum extent feasible the developed portion of the project area (i.e. not including wetlands, open water buffers, recreational lands) is no more than 10 percent, with the remaining undeveloped lands protected by permanent easement.

Where the preserved land in the cluster project area is preserved for agricultural purposes, the cluster development ordinance and an Agriculture Retention/Farmland Preservation Plan requires continued agricultural viability of the agricultural land and the implementation of best management practices, including development and implementation of a USDA Natural Resource Conservation Service Farm Conservation Plan focused on protection of water resources.

**Objective 2K3e.** Allow the expansion or creation of wastewater collection systems within the Existing Community Zone of the Planning Area, other than the Environmentally-Constrained Sub-zone, to serve lands which are appropriate for designated TDR Receiving Zones, infill or redevelopment, to meet needs and protection requirements equivalent to Objective 2K3c within the Existing Community Zone, or to serve new areas for development that meet all other requirements of the RMP. The highest priority for allocation of excess or additional wastewater treatment capacity is to areas where there are clusters of failed septic systems that are located within or adjacent to Existing Areas Served. TDR Receiving Areas, where designated, affordable housing projects (where the affordable units exceed 10% of the total units), infill and redevelopment shall have higher priority for capacity than other developments requiring expansion of sewer service areas.

**Objective 2K3f.** All development within the Highlands Region, in areas which are not served by public wastewater collection and treatment system or community on-site treatment facility, shall be at a density that can be supported by septic systems under Goal 2L. Where cluster development in the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area shall be served by on-site wells, and the undeveloped land is preserved for agricultural purposes in perpetuity, the cluster design and the Agriculture Retention/Farmland Preservation Plan required by Objective 2K3d

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in combination shall include provisions for best management practices that protect the on-site wells from contamination resulting from agricultural practices and shall include provisions to minimize or reduce net pollutant loadings from the total project area including the preserved agricultural lands.

**Policy 2L5.** To establish minimum standards for the placement, design, monitoring and maintenance of septic systems necessary to protect, restore, and enhance ground water quality.

**Objective 2M2a.** Identify innovative technologies that may be appropriate for the design, installation, and maintenance of on-site wastewater treatment systems to minimize impairment to ground water or surface water quality due to elevated nitrate concentrations and other pollutant loads from septic systems providing the systems meet the minimum standards of N.J.A.C 7:9A.

**Routine Maintenance of Residential Septic Systems**

Municipalities shall, as a requirement of Plan Conformance, adopt municipal or Board of Health programs and ordinances (or participate in regional Board of Health programs) to improve the maintenance of existing and new residential septic systems.

The following maintenance standards apply:

1. Municipalities shall, at a minimum, implement the programs required under the Water Quality Management Planning rules, N.J.A.C. 7:15;
2. Proper O&M shall be encouraged for all septic systems through the annual provision of information to the landowner regarding proper O&M management;
3. Maintenance shall be ensured through a regulatory system requiring proof of proper maintenance, including but not limited to septic system pump-out, methods to prevent solids and grease migration into the distribution system, and no evidence of chemical disposal that disrupts the biological treatment of wastes, where septic systems:
  - a. exist at a density that exceeds an average nitrate concentration of 10 mg/L using drought ground water recharge, or
  - b. are within a Wellhead Protection Area, Prime Ground Water Recharge Area or Highlands Open Water Buffer area.

**Life-cycle Maintenance of Residential Septic Systems**

Municipalities shall, as a requirement of Plan Conformance, adopt the Standards for Individual Subsurface Sewage Disposal Systems (N.J.A.C. 7:9A). Municipalities shall also adopt municipal or Board of Health ordinances (or participate in regional Board of Health programs) addressing the long-term maintenance needs of new residential development that relies on septic systems, by requiring that each developed lot include a specified and sufficient location for a replacement disposal field. All septic system disposal fields eventually fail as solids and microbial growth clog the field, and therefore require a replacement field to ensure that the system will not fail without potential for rehabilitation at great cost.

**Upgrading & Replacement of Residential Cesspools**

Municipalities shall, as a requirement of Plan Conformance, adopt municipal programs or Board of Health ordinances (or participated in regional Board of Health programs) addressing the upgrade of residential wastewater systems that

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**and Other Inadequate  
Wastewater Systems**

do not perform in a manner similar to or better than standard septic systems. Specifically, at least at time of system failure or property sale, whichever comes first, residential cesspools and other inadequate systems must be upgraded to meet NJDEP Standards for Individual Subsurface Sewage Disposal Systems (N.J.A.C. 7:9A) (or other applicable NJDEP requirements for charitable, non-profit campgrounds) to the maximum extent feasible given site conditions. No home improvements that increase daily domestic wastewater flows shall be permitted unless the wastewater system can be upgraded to satisfy the N.J.A.C. 7:9A standards. Priority shall be placed on such systems that are located in dense development that is dependent on on-site systems, or are within a Wellhead Protection Area or Highlands Open Water Buffer area.

**Upgrading of Septic  
Systems to Address  
Threats to Human  
Health and Ground  
Water Quality**

For ground water quality, unlike surface water quality, there is no specific State program for identifying areas of potential contamination and developing a management plan to restore ground water quality. The Highlands Council shall use its available information on residential development outside of sewer service areas to define locations where existing septic system density significantly exceeds the LUCM Zone or NJDEP nitrate targets, as potential contamination areas related to septic system density. The Highlands Council will rank the areas by size, severity and threat to human health and the environment, and work with municipalities to identify and confirm ground water quality concerns and evaluate cost-effective methods, where available, to restore ground water quality.

Methods may include one or more of the following, with due care to ensure that the replacement does not cause harmful secondary environmental effects such as ground water recharge losses:

1. Upgrade of existing septic systems to alternative on-site treatment systems, at times which maximize cost-effectiveness of the upgrade (e.g., when existing systems fail). Where the alternative systems require special O&M, they should only be implemented if the O&M is ensured;
2. Replacement of individual septic systems with a communal septic system or communal alternative treatment system, with ownership and management in place to ensure O&M;
3. Replacement of individual septic systems with a community-based wastewater treatment system sized to address only the project area, with ownership and management in place to ensure O&M;
4. Extension of public sewerage where it will not have significant secondary effects such as pressures to develop other areas in Conservation and Protection Zone, which are inappropriate for sewerage.

**Alternative  
Management  
Approaches for New  
Septic Systems**

The traditional approach to septic systems is ownership, operation and maintenance of septic systems by the homeowner. Maintenance is usually not performed, and few homeowners are aware that septic systems have a lifespan and will require replacement, usually at a very high cost. As an optional approach, developers, municipalities, counties and the Highlands Council should consider the establishment of alternative management systems.

The following general concepts would ensure that septic systems are managed in a manner more equivalent to other utility services, with proper maintenance and methods to ensure that homeowners do not face major, unanticipated costs:

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**Requirements for New  
Small-Community  
Wastewater Systems**

1. Ownership of the septic system may remain with the homeowner or, similar to other utility services, be placed with a public or investor-owned utility;
2. Where the septic system remains the property of the homeowner, a mandatory condition of development approval would be a requirement that each homeowner have a maintenance contract for the entire life of the septic system and any replacement;
3. The maintenance contract would provide for routine maintenance, repairs and ultimate replacement, with costs spread over the contract life;
4. Where septic system ownership is with the utility, a fee-based system would address life-cycle costs for routine maintenance, repairs and ultimate replacement.

Proposals for development in an Existing Community Zone, a Council-approved cluster development site, or for which a Highlands Act waiver has been approved by NJDEP or the Highlands Council may require the use of a community-based wastewater treatment system.

These systems must be addressed through municipal Plan Conformance approval and must meet the following requirements:

1. The related development must meet all relevant RMP requirements regarding environmental constraints, applicable Land Use Capability Zone policies, and other goals, policies and objectives;
2. The community-based system must be sized such that it only provides capacity for the planned on-site improvements;
3. The community-based system must be owned and operated by an entity with sufficient financial capacity and operating expertise to ensure proper O&M over the life of the community. Owners may include utility authorities, municipal utilities, State agencies, and investor-owned utilities regulated by the NJ Board of Public Utilities;
4. The system and proposed service area must be approved by NJDEP as part of an Areawide Water Quality Management Plan or component Wastewater Management Plan, and permitted by NJDEP under the NJPDES program.

**Management of  
Existing Small-  
Community Wastewater  
Systems**

Where community-based wastewater systems already exist, their continuing financial viability and proper O&M are of concern. All such facilities should already be part of an Areawide Water Quality Management Plan or component Wastewater Management Plan, and permitted by NJDEP under the NJPDES program. Where the owner/operator is a utility authority, municipal utility, State agency, or investor-owned utility regulated by the NJ Board of Public Utilities, no further action is needed.

Municipalities, counties and the Highlands Council should explore methods by which other facilities can continue to provide sufficient treatment throughout the lifespan of existing communities. Options include:

1. Requirements for annual reports from the system owner/operator discussing revenue, expenditures, reserve funds, O&M issues, etc., to help identify potential concerns that should be addressed;
2. Allowing or encouraging homeowners associations to transfer ownership of the system to a utility authority, municipal utility, State agency, or investor-owned utility regulated by the NJ Board of Public Utilities, with a fee-based

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- system for future O&M;
- 3. Establishing a special taxation district to provide funding for system O&M in lieu of homeowner association dues, etc.;
- 4. Establishing a regional utility authority to either take ownership of or provide O&M services under contract for multiple community-based systems.

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**Smart Growth and Community Design Handbook**

**Issue Overview**

The Highlands Act notes that, “the existing land use and environmental regulation system cannot protect the water and natural resources of the New Jersey Highlands against the environmental impacts of sprawl development.” (Section 2).

The Regional Master Plan guides new growth and development to areas of existing development and requires that community development and redevelopment be carefully tailored to ensure that new growth is compatible with the existing community character. In addition, the Plan contemplates that Highlands Development Credits will be transferred to receiving zones where appropriate. The Highlands Act requires that this Plan’s smart growth component include an assessment, based upon the resource assessment, “of opportunities for appropriate development, redevelopment, and economic growth, and a transfer of development rights program which shall include consideration of public investment priorities, infrastructure investments, economic development, revitalization, housing, transportation, energy resources, waste management, recycling, brownfields, and design such as mixed-use, compact design, and transit villages.” (Section 11.a.(6))

The Highlands Act requires the RMP to promote smart growth practices in the Highlands Region, particularly with regard to development in the Existing Community Zone and in areas appropriate for redevelopment.

**Program Summary**

The Highlands Council will work with state and local agencies and technical and planning experts to prepare a handbook on smart growth and community design to be utilized for community development and redevelopment within the Highlands Region.

**RMP Policies and Objectives Addressed**

**Policy 6H1.** To promote compatible development and redevelopment within the Existing Community Zone.

**Policy 6H3.** To ensure that development activities within the Existing Community Zone are subject to standards and criteria which ensure that development and redevelopment incorporate smart growth principles and do not adversely affect natural resources.

**Policy 6H5.** To ensure that development and redevelopment in the Existing Community Zone are compatible with existing community character.

**Policy 6I1.** To encourage new growth, where desired by the municipality, and development in the Existing Community Zone is in the form of center based and mixed use development.

**Policy 6N1.** To establish smart growth programs and low impact development (LID) principles for use within the Highlands Region to guide and control development and redevelopment throughout the Highlands Region.

**Highlands Smart Growth and Community Design Handbook**

The Highlands Council working in partnership with agencies and development partners will prepare a Highlands Smart Growth and Community Design Handbook for use by municipalities and counties in their planning, design and

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review processes. The handbook will address a broad range of issues potentially including but not limited to the following:

- Mixed use development guidelines
- Infill development practices and standards
- Historic building and feature development practices
- Scenic resource protection design elements
- Techniques for community character analysis
- Economic development techniques (including Downtown Business Districts, home office operations, Bed and Breakfast operations, tourism, historic preservation and recreation connections)
- Traditional design practices for communities
- Location efficiency
- Resource efficiency
- Green building technology, including water conservation and energy efficient practices
- Innovative building practices and techniques
- Site layout and design techniques
- Cluster, lot-averaging and conservation development techniques
- Promoting a better jobs to housing balance
- Redevelopment and revitalization techniques
- Addressing affordable housing and community facilities
- Connecting transportation, transit and land use planning
- List of state and national smart growth publications and resources

**Municipal Outreach**

The Highlands Council will distribute the Highlands Smart Growth and Community Design Handbook to all Highlands Region municipalities. It will establish an outreach program to engage professional planners, landscape architects, architects and property owner/developers implementing smart growth practices in the Highlands Region. Finally, the Council will provide technical and planning assistance and planning grants to municipalities with regard to the use of the Handbook.

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**Part 7. Landowner Equity**

**Highlands Transfer of Development Rights Program**

**Issue Overview**

The Highlands Transfer of Development Rights (TDR) Program is a regional program that permits the transfer of development rights, termed Highlands Development Credits, to further the goals of the Highlands Act. As a land use tool, TDR permits a community to utilize market forces to encourage the transfer of development potential from areas that the community wants to preserve, called Sending Zones, to areas that are more appropriate to accommodate increased growth, called Receiving Zones. Landowners in the Sending Zones receive compensation for restricting development on their property. As a market-based system, payment for this lost development potential comes from purchasers who buy credits representing the lost development potential in the Sending Zones. The credits then entitle the purchaser to build in a Receiving Zone at a density greater than that otherwise permitted in the underlying zoning. Under the Highlands Act, certain benefits accrue to Receiving Zone municipalities where the resulting development density is 5 dwelling units per acre or greater.

**RMP Policies and Objectives Addressed**

Part 7, Landowner Equity (all Policies and Objectives)

**Program Summary**

The TDR Program guides new growth and development away from lands with little or no capacity to accommodate human development without adversely affecting the integrity of the Highlands ecosystem. This program establishes procedures and standards by which eligible property owners may apply for an allocation of Highlands Development Credits. The program provides for the designation of Receiving Zones where HDCs may be transferred and used for development purposes. The program also creates a Highlands Development Credit Bank to serve as the administrator of the Highlands Development Credit program.

**Highlands Development Credit Created**

The Highlands Regional Master Plan (RMP) creates a transferable development right in the form of a Highland Development Credit (HDC) which can be used to increase the density or intensity of development in a designated Receiving Zone.

**Allocation of Highlands Development Credits**

Sending Zones are those areas of the Highlands Region that may be eligible to receive an allocation of HDCs because reasonable future development expectations have been disproportionately limited by the provisions of the Highlands Act or implementation of programs established by the RMP. Which parcels of land within the various Land Use Capability Map Zones are eligible to apply for an allocation of HDCs is determined by the requirements outlined below.

1. A parcel of land in the Protection Zone or Conservation Zone in the Preservation Area, which was zoned for residential use on August 9, 2004,

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and which satisfies one (1) of the following criteria, is eligible to apply for an allocation of HDCs:

- The parcel of land has an area of at least five (5) acres;
  - The area of the parcel of land is at least three (3) times the minimum lot size in effect on August 9, 2004; or
  - The parcel of land is undeveloped and the owner voluntarily chooses not to develop the parcel pursuant to one or more of the exemptions under section 28 of the Act.
2. A parcel of land in the Protection Zone or Conservation Zone in the Planning Area, which was zoned for residential use on the date of Highlands Council determination of Plan Conformance may be eligible to apply for an allocation of HDCs under the same criteria as listed in (1) above when the municipality in which their property is located has voluntarily conformed to the Regional Master Plan and establishes one or more Sending Zones for that portion of the municipality in the Planning Area.
  3. A parcel of land in the Protection Zone or Conservation Zone in the Preservation Area, which was zoned for non-residential use on August 9, 2004, is eligible to apply for an allocation of HDCs.
  4. A parcel of land in the Protection Zone or Conservation Zone in the Planning Area, which was zoned for non-residential use on the date of Highlands Council determination of Plan Conformance, may be eligible to apply for an allocation of HDCs when the municipality in which their property is located has voluntarily conformed to the Regional Master Plan and establishes one or more Sending Zones for that portion of the municipality in the Planning Area.
  5. The owners of eligible parcels of land may apply to the Highlands Council for an allocation of HDCs by submitting an application for an HDC Allocation Determination to the Highlands Council together with the information required by the Council to make an HDC Allocation Determination. Any owners of parcels not eligible in 1 through 4 above may request from the Highlands Council a determination of eligibility on a case by case basis based upon particularized extenuating circumstances.
  6. HDCs shall be allocated to a residentially zoned parcel of land on the basis of the following formula:

$$U_{NET} \times K_{ZF} \times K_{LF} = \text{HDC Allocation}$$

**U<sub>NET</sub> = Net Yield** – the number of residential lots that could have been situated on a parcel of land on August 9, 2004, taking into consideration all municipal development regulations and applicable state and federal laws and regulations.

**K<sub>ZF</sub> = Zoning Factor** – a regional adjustment factor to recognize that the value of the land varies according to the end use to which the property could have been developed.

**K<sub>LF</sub> = Location Factor** – an adjustment factor to recognize that per

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unit value of land varies by location within the Highlands Region.

7. In the event that a landowner voluntarily chooses not to develop an undeveloped, residentially zoned parcel pursuant to a single family home exemption under section 28 of the Act, the Net Yield shall be increased reflecting the parcel's regional resource value.
8. HDCs shall be allocated to a non-residentially zoned parcel of land on the basis of the following formula:

$$U_{NET} \div K_{SF/USE} = \text{HDC Allocation}$$

**U<sub>NET</sub>** = **Permitted Square Footage** – the amount of buildable area that could have been situated on the parcel of land on August 9, 2004, taking into consideration all municipal development regulations and applicable state and federal laws and regulations.

**K<sub>SF/USE</sub>** = **Non-Residential Square Footage Conversion** – a conversion factor between various types of non-residential uses recognizing differences in underlying land value associated with various non-residential uses.

9. As soon as practicable after the Highlands Council receives a complete Application for an HDC Allocation Determination, the Council will issue a HDC Allocation Letter setting forth the number of HDCs allocated to the eligible parcel of land if appropriate.
10. An HDC Allocation Letter shall include a specific restriction on the future use of the parcel of land to which HDCs are allocated.
11. If the landowner disputes the number of HDCs allocated to his or her parcel, the owner may seek reconsideration by the Highlands Council only with respect to the parcel's lot yield in the case of residential development or permitted square footage in the case of non-residential development.

**Highlands  
Development Credit  
Certificates**

1. No HDC may be sold, transferred or encumbered until the landowner has obtained a HDC Certificate from the Highlands Development Credit Bank.
2. The Highlands Development Credit Bank will not issue a HDC Certificate until an easement restricting the future development of the parcel of land to which HDCs have been allocated by the Highlands Council has been recorded on the chain of title to the parcel to which the HDCs were allocated.
3. The conservation easement shall restrict the future use of the parcel of land in accordance with the provisions of the Highlands Council's HDC Allocation Letter and shall be enforceable by the Highlands Development Credit Bank, the Highlands Council, the municipality in which the parcel of land is located, and the New Jersey Department of Environmental Protection. Enforcement by an appropriate non-profit corporation may be included, if applicable.

**Sale and Use of HDCs**

1. Prior to the sale, transfer or conveyance of HDCs, the holder of an HDC Certificate shall apply to the Highlands Development Credit Bank for the re-issuance of a HDC Certificate in the name of the grantee.

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2. An application for re-issuance of an HDC Certificate in conjunction with a sale, transfer or conveyance of HDCs shall include the name(s) of the grantee(s), the name(s) of the grantor(s), the number of HDCs to be sold, transferred or conveyed, the date of the proposed closing of the transaction, written documentation of the interest sold, transferred or conveyed and the consideration for the sale, transfer or conveyance.
  3. Prior to the encumbrance of HDCs as collateral or other security, the holder of the HDC Certificate shall notify the Executive Director of the Highlands Development Credit Bank of the name and address of the lender and the date, amount and term of the loan or obligation.
  4. In the event a government agency or non-governmental organization proposes to acquire conservation or agricultural easements which restrict the future use of land in a TDR Sending Zone and the agency requests a HDC Certificate from the Highlands Development Credit Bank, the Executive Director shall procure an HDC Allocation Letter from the Highlands Council and issue a HDC Certificate to the agency or organization when the easement(s) are recorded.
  5. When HDCs are used in conjunction with a development project within a Receiving Zone, the holder of the HDC Certificate shall, within ten (10) days of municipal development approval, notify the Highlands Development Credit Bank of the use of the HDCs and apply for a Certificate of Redemption.
  6. An application for redemption of a HDC shall include the name of the holder of the HDC Certificate, the name of the developer who used the HDCs, the municipality where the development using HDCs is located, the legal description of the parcel of land on which the HDCs were used and the date of the municipal approval of the development.
  7. In the event that only a portion of the HDCs which are authorized in a HDC Certificate are redeemed, the Highlands Development Credit Bank shall issue a new HDC Certificate for the HDCs which were not used.
1. Parcels of land located within the Existing Community Zone and any lands within a Highlands Redevelopment Area may be designated as Receiving Zones by a Highlands municipality upon approval by the Highlands Council, provided that such receiving zones are consistent with the Regional Master Plan.
  2. Parcels of land located in the Conservation Zone may also be designated as Receiving Zones upon approval of the Highlands Council, provided that such receiving zones are consistent with the Regional Master Plan and the development does not conflict with the maintenance of viable agriculture.
  3. Parcels of land, which are located within Highlands Counties but not within the boundaries of the Highlands Region, may be designated as a Receiving Zone for the use of HDCs upon approval of the Highlands Council, provided that the municipality has received plan endorsement in accordance with State Planning Commission guidelines.

**Receiving Zone  
Eligibility**

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**Receiving Zone  
Designation Process**

4. A Municipality within the Planning Area, which does not petition the Highlands Council for a determination of Plan Conformance, may establish a Receiving Zone for the use of HDCs upon approval of the Highlands Council, provided that the municipality has received plan endorsement in accordance with State Planning Commission guidelines.
5. Through the municipal Plan Conformance process a Highlands municipality may establish a Receiving Zone which is restricted to the transfer and use of HDCs allocated to parcels of land located within the municipality and/or county where the Receiving Zone is located.
1. Within the Highlands Region, the Highlands Council may designate parcels of land as either a Higher Intensity Receiving Zone or Lower Intensity Receiving Zone in response to a petition from the municipality in which the Receiving Zone is to be located. A Higher Intensity Receiving Zone is one where development may require the use of appropriate public water and wastewater infrastructure with capacity to accommodate additional or new growth and which may be proximate to existing developed lands and multi-modal transportation infrastructure. An area that serves as a Higher Intensity Receiving Zones will have a minimum net residential density of 5 dwelling units per acre or its residential unit equivalent for non-residential development. A Lower Intensity Receiving Zone is one that has residential densities below 5 dwelling units per acre but which provides some amount of bonus residential density or increase in non-residential intensity which is consistent with existing community character. In many cases, a Lower Intensity Receiving Zone will be located in an area where the community character is more suburban or rural.
1. Any area within the Highlands Region identified by the Highlands Council as a potential voluntary HDC Receiving Zone may not be designated as such unless the municipality in which the zone is identified petitions the Highlands Council for designation.
2. Before a municipality may petition the Highlands Council for Receiving Zone designation, it shall conduct a feasibility assessment of the proposed area to accommodate the increase in residential density or non-residential use intensity contemplated by the municipality. This feasibility assessment shall be governed by requirements established by the Highlands Council.
3. Upon completing the feasibility assessment, the municipality shall complete a Petition for Receiving Zone Designation and shall include with that petition a resolution stating its desire to designate the proposed Receiving Zone setting forth the bases for the proposed Receiving Zone's inclusion in the Highlands TDR Program.
4. The Highlands Council shall consider the municipality's Petition for Receiving Zone Designation and may approve the Petition for Receiving Zone Designation, provided that designating the proposed Receiving Zone is consistent with the provisions of the Highlands TDR Program and the Regional Master Plan.
5. Upon Highlands Council approval of the Petition for Receiving Zone

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**Highlands  
Development Credit  
Bank Created**

Designation, the municipality shall prepare a Transfer of Development Rights Ordinance to be reviewed and approved by the Highlands Council.

1. The Highlands RMP provides for the creation of a Highlands Development Credit Bank.
2. The Highlands Development Credit Bank is to serve as a regional clearinghouse for information with regard to the Highlands TDR Program.
3. The Highlands Development Credit Bank is to serve as the administrator and official recording agency for the Highlands TDR Program.
4. The Highlands Development Credit Bank is authorized to buy HDCs for the following purposes:
  - To further the objectives of the Highlands Act and the RMP; or
  - To alleviate a Sending Zone parcel owner's demonstrated unique and extenuating financial circumstances such as imminent bankruptcy, extraordinary medical expenses, or loss of job and inability to secure new job within 6 months.
5. The Highlands Development Credit Bank is authorized to sell, exchange or otherwise convey HDCs, but only in a manner that does not substantially impair the private sale or transfer of HDCs.



JON S. CORZINE  
*Governor*

**State of New Jersey**  
Highlands Water Protection and Planning Council  
100 North Road (Route 513)  
Chester, New Jersey 07930-2322  
(908) 879-6737  
(908) 879-4205 (fax)  
[www.highlands.state.nj.us](http://www.highlands.state.nj.us)



JOHN R. WEINGART  
*Chairman*

EILEEN SWAN  
*Executive Director*

## **NITRATE TARGETS FOR WATER QUALITY MANAGEMENT PLAN CONSISTENCY**

### **Overview**

At the Highlands Council meeting of April 24, 2008, the Council requested additional analysis on a staff recommendation for Council consistency determinations regarding amendments to Areawide Water Quality Management Plans for areas in the Planning Area where municipalities have chosen not to conform to the Regional Master Plan (RMP).

Within the Preservation Area and conforming Planning Area municipalities, the staff recommended that all RMP policies should be applied to consistency determinations for both sewer service areas and septic system service areas through Water Quality Management Planning (WQMP) amendment reviews. For nonconforming municipalities in the Planning Area, the staff recommended that any WQMP amendment for sewer service areas be reviewed for consistency based on the RMP policies to ensure that the construction of sewerage systems and water supply infrastructure are consistent with the RMP.

The following analysis addresses the Council's request for additional information on the remaining consistency policy issue regarding nitrate targets for nonconforming municipalities. For septic system service areas in nonconforming municipalities, the staff proposal was to adopt an RMP consistency policy that would strongly recommend that municipalities use the nitrate targets in the RMP in establishing appropriate septic densities but that any WQMP amendment would be deemed consistent with the RMP should the amendment be based upon the minimum nitrate target in the WQMP rules. It must be emphasized that any municipality in the Planning Area that conforms to the RMP is required to use the nitrate thresholds of the RMP.

### **Discussion**

The primary issue in question is the choice of an appropriate nitrate target for WQMP consistency determinations for nonconforming municipalities of the Planning Area. The range of this choice of appropriate nitrate target begins with the minimum requirements in the New Jersey Department of Environmental Protection (NJDEP) newly adopted WQMP rules at N.J.A.C. 7:15 and ends with the more stringent nitrate targets in the RMP. The difference between these two approaches to nitrate targets is discussed below.

### **WQMP Approach**

The WQMP rules include septic system density requirements based on nitrate dilution analyses using a 2 mg/L nitrate target and annual average ground water recharge. The rules at N.J.A.C. 7:15-5.25(e)1 require that the density of systems in undeveloped and underdeveloped areas shall not exceed the nitrate planning standard of 2.0 mg/L of nitrate on a HUC11 basis. This nitrate planning standard will result in required average lot sizes of between 4 and 7 acres per single-family dwelling depending on local conditions. The WQMP rules encourage the development of County Wastewater Management (WMP) and municipalities have the option of participating in the development of the County plan. If a municipality opts out of the County WMP, the sewer service areas in the municipality (if any) are frozen at the Existing Area Served, and any development using septic systems or on-site treatment systems are limited to 2,000 gallons per day per development, which equates to 5 dwelling units for residential development. No WQMP amendments will be accepted for other developments.

### **RMP Approach**

The policies in the RMP for conforming municipalities are based upon estimated median nitrate concentrations in the Planning Area's Land Use Capability Map Zones (Existing Community Zone- 2 mg/L, Conservation Zone- 1.87 mg/L, and Protection Zone-0.72 mg/L,) and drought ground water recharge. While the respective septic density for these three zones is 9.4, 10, and 26.1 acres per septic system on average, the RMP septic policies are not based upon septic density and are instead based upon septic yield. The RMP policies require conforming municipalities to conduct comprehensive planning using the yield of allowable additional septic systems. Accordingly, the Council calculated septic system yields for the HUC14 subwatersheds and conforming municipalities are required to examine these yields and conduct comprehensive and coordinated planning to address other RMP policies.

It is the goal of the RMP to apply all the resource based standards of the Plan in order to guide growth away from sensitive environmental areas and to appropriate areas capable of sustaining that growth. Application of the nitrate standards absent the comprehensive planning of the RMP will result in sprawl that, though lowering the number of septic systems, will not further the other goals of the Act.

### **Analysis**

In order to examine the difference in these two approaches, the Council staff conducted a preliminary analysis. The Council staff examined the existing zoning in the Planning Area to determine whether compliance with the WQMP rules will require more stringent septic system densities in municipalities or whether existing zoning already meets or exceeds the required densities.

Based upon a preliminary regional analysis, the Council staff determined that approximately 40% of the residentially zoned land area has zoning that is more stringent than the WQMP rules requirement while 60% of the land area is less stringently zoned. These percentages are based on both developed and undeveloped lands, and reflect significant areas of existing development at higher densities than are commonly applicable to new development, and so we might expect that 50% or more of the existing zoning for developable lands is at densities that meet the WQMP rules. The minimum zoned densities in the Highlands Region are approximately 10 to 12 acres per septic system. Therefore, differences between the existing zoning, the WQMP rules and the RMP will be

greatest in the Protection Zone, while a few municipalities already have zoning roughly equivalent to Conservation Zone requirements.

In addition, Council staff conducted an analysis comparing the RMP polices to the WQMP requirements. Overall, the RMP density standards for the Planning Area as a whole will be more stringent than the WQMP rules, reducing densities to approximately 30 percent of the WQMP levels. The estimated difference between the approaches is that the WQMP rules and existing zoning would result in approximately 20,600 new septic systems and the RMP policies would result in approximately 6,200 new septic systems. However, this would only be the case if all municipalities with Planning Area lands chose not to conform.

### **Conclusion**

Council staff stands by its original recommendation in order to foster comprehensive planning by nonconforming municipalities. The nitrate targets established in the RMP are designed not only to protect and enhance the existing water quality in the Highlands subwatersheds, but also to ensure that the yield of additional septic systems are properly planned and distributed to avoid sprawling development patterns and to guide the growth into appropriate areas. While nonconforming municipalities should be strongly encouraged to utilize the Highlands Council's more detailed nitrate analysis and more protective nitrate targets in developing a WMP, a municipality's decision to meet the NJDEP's requirements should be supported by the Council through consistency determinations.



## Planning Assistance Grant Application

I. Application Summary			
<b>Applicant</b>		<b>Contact Person</b>	
<b>County</b>		<b>Address</b>	
<b>Date</b>		<b>Phone</b>	
<b>Type of Grant Requested</b>	<b>Initial Assessment</b>	<b>Fax</b>	
<b>Requested Grant Amount</b>	\$0	<b>Email</b>	

II. Highlands Jurisdiction & Grantee Signature
<p>Is the applicant located within the Highlands Region?    <input type="checkbox"/> Yes    <input type="checkbox"/> No</p> <p>If yes, indicate:   <input type="checkbox"/> Preservation Area   <input type="checkbox"/> Planning Area   <input type="checkbox"/> Split</p> <p>(Municipality/County Name) hereby applies to the New Jersey Highlands Water Protection and Planning Council for a Planning Assistance Grant pursuant to the Highlands Water Protection and Planning Act, N.J.S.A. 13:20-1 et seq., P.L.2004, c. 120 and agrees to provide the Highlands Council at no cost copies of its land use planning documents listed on the Checklist of items listed below.</p> <p style="text-align: center;"><b>*ORIGINAL SIGNATURE REQUIRED*</b></p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Municipal/County Official or Authorized Designee's Title</p>

III. Items Required for Complete Grant Application	
<input type="checkbox"/> Copy of resolution of governing body authorizing submission of grant application.	<input type="checkbox"/> *Copy of notification to county planning board that applicant is pursuing a planning assistance grant.
<input type="checkbox"/> *Copy of the following local planning documents (not required if the applicant has already submitted them to Highlands Council unless subsequently amended):	
<ul style="list-style-type: none"> <li>• Master Plan &amp; Re-Examination Report</li> <li>• Open Space &amp; Recreation Plans</li> <li>• Utilities Plan</li> <li>• Natural Resource Inventory</li> <li>• Zoning Map &amp; Zoning Code</li> <li>• Conservation Easements</li> <li>• Land Use Regulations</li> <li>• Farmland Preservation Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Subdivision &amp; Site Plan Regulations</li> <li>• Environmental &amp; Design Standards</li> <li>• Right to Farm Ordinance</li> <li>• Wastewater Management Plan</li> <li>• Water &amp; Sewer Purveyors</li> <li>• Cross-Acceptance Report</li> <li>• Stormwater Management Plan</li> <li>• Redevelopment Plan</li> </ul>
<b>*Not Applicable for Initial Assessment Grants.</b>	

#### IV. Scope of Work

**Work Products:**

Describe the planning document(s) to be prepared, as well as project timeframes and target completion dates.

Deliverable(s)	Project Timeframe	Target Completion Date

Has the applicant initiated work on any of the work products?  Yes  No

If work has been completed on any work products, please describe\*:

\*If the grant request includes reimbursement for completed work product(s), invoices must be submitted and should be reflected in the Estimate of Costs.

#### V. Staffing Plan

Internal Staff	%
Describe work to be performed by internal staff:	
Outside Consultants	%
Describe work to be performed by outside consultants:	
<b>Consultant Information (if known):</b>	
Company Name:	Address:
Contact Person:	Email:
Phone:	Fax:

#### VI. Budget

Estimated Total Project Cost	\$0
Amount of Grant Funding Requested	\$0

<b>Project Cost Breakdown</b>		
Project Components	Cost Estimate	
1.	\$0	
2.	\$0	
3.	\$0	
4.	\$0	
5.	\$0	
<b>TOTAL</b>	<b>\$0</b>	
<b>Source of Estimates</b>		
Please describe the source of cost estimates.		
<b>Other Funding Sources</b>		
Please list any other sources of funds that the applicant will rely upon to aid in the completion of the product(s) expected to be funded by the Planning Assistance Grant from the Highlands Council. Please note the source(s), status of obtaining the funds, and the amount expected.		
	Source & Status	Amount
Public Money		\$0
Grant(s)		\$0
Other		\$0
Other		\$0
<b>TOTAL</b>		<b>\$0</b>

<b>VII. Intermunicipal Project *</b>
Please describe the proposed intermunicipal project:
<p>*Not applicable for Initial Assessment, TDR Feasibility, or COAH grant applications.</p> <p>For each intermunicipal project:</p> <ul style="list-style-type: none"> <li>• Each municipality shall submit a separate completed application form.</li> <li>• The municipalities shall submit a cooperative Scope of Work.</li> <li>• The participating municipalities shall sign and submit a cooperative agreement to pursue the proposed intermunicipal project.</li> <li>• The required letters to the county planning board(s) must include language about the proposed intermunicipal project.</li> <li>• All of the requested information shall be submitted to the Highlands Council as one package.</li> </ul>

**Mail printed copy of this form (with original signature) to:  
 NJ Highlands Council,  
 100 North Road (Route 513)  
 Chester, NJ 07930  
 Attn: Manager of Grants Administration**