



State of New Jersey

Highlands Water Protection and Planning Council
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JON S. CORZINE
Governor

JOHN R. WEINGART
Chairman

DANTE DI PIRRO
Executive Director

MEETING AGENDA

Thursday, September 21, 2006 - 10:00 a.m.

1. CALL TO ORDER
2. ROLL CALL
3. OPEN PUBLIC MEETINGS ACT
4. PLEDGE OF ALLEGIANCE
5. APPROVAL OF MINUTES
6. CHAIRMAN'S REPORT (and Council Member Reports)
7. EXECUTIVE DIRECTOR'S REPORT
8. COMMITTEE REPORTS
 - a. Land Conservation Committee – Councilmember Pasquarelli
 - b. Budget and Finance Committee – Councilmember Pasquarelli
 - c. Local Participation Committee – Councilmember Letts
9. DRAFT RMP WORK SESSION TOPICS*
 - a. Forest Resource Areas
 - b. Groundwater Recharge Areas
 - c. Steep Slope Areas
 - d. Smart Design Standards
 - e. Agricultural Protection and Sustainability
10. ADJOURN

** This Council meeting will largely be devoted to the Work Session on the draft Regional Master Plan (Item #9 above) and will not include a general public comment period, but will provide opportunity for public comment on any proposed resolution before a vote is taken. Written comments will be accepted during the session. In addition, approximately 15 minutes after the adjournment of the Council meeting, members and staff will convene a Public Availability Session to solicit additional public comments.*

MINUTES

NEW JERSEY HIGHLANDS COUNCIL MEETING OF SEPTEMBER 21, 2006

PRESENT:

JOHN WEINGART)	CHAIRMAN
KURT ALSTEDE)	COUNCIL MEMBERS
ELIZABETH CALABRESE)	
TRACY CARLUCCIO)	
TIM DILLINGHAM)	
MIMI LETTS)	
JACK SCHRIER)	
DEBBIE PASQUARELLI)	
MIKAEL SALOVAARA)	
GLEN VETRANO)	
SCOTT WHITENACK)	

ABSENT:

JANICE KOVACH

The following are the minutes from the New Jersey Highlands Council meeting which was held at 100 North Road, Chester, New Jersey on September 21, 2006 at 10:00 a.m.

CALL TO ORDER:

The Chairman of the Council, Mr. John Weingart, called the 34th meeting of the New Jersey Highlands Water Protection and Planning Council to order at 10:05 a.m.

ROLL CALL: The members of the Council introduced themselves.

PLEDGE OF ALLEGIANCE was then recited.

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 of circulation throughout the State.

MINUTES OF SEPTEMBER 14, 2006:

Mr. Jack Schrier made a motion to approve, Mr. Mikael Salovaara seconded, no members opposed, no comments were received, Mr. Glen Vetrano and Ms. Elizabeth Calabrese abstained. There were ten members present on the motion, therefore, the minutes could not be approved without a quorum. Ms. Pasquarelli arrived at 10:20 a.m., the prior motion made and seconded was readdressed. All were in favor, with Mr. Glen Vetrano and Ms. Elizabeth Calabrese abstaining, and the minutes of September 14, 2006 were APPROVED.

CHAIRMAN'S REPORT:

Chairman Weingart reported to the members that it was likely that by the Council's next meeting two new members would be joining them. The Senate Judiciary Committee met on September 18th, 2006 and approved Ms. Tahesha Way and Mr. Erik Peterson for consideration by the full Senate on September 25th, 2006. Mr. Weingart further advised that Ms. Way and Mr. Peterson were present in the audience as well.

Mr. Weingart advised the members of several documents they would find in their meeting packets including written comments from the Farm Bureau, as well as a written summary of the comments at the public availability session held the previous week. He noted there was also an informational brochure regarding an upcoming New Jersey regional planning conference on September 28th and 29th. Also included in the meeting packets were two letters to Governor Corzine, one which thanked him for addressing the Council at its meeting the week before, and also a letter regarding the Council's position regarding the Garden State Preservation Trust.

Mr. Weingart noted the work session would focus on 4 specific policy issues, and that the smart design standards document noted on the agenda would not be addressed, as it was not yet ready for the Council's review. Mr. Weingart advised that a public availability session would be conducted immediately following adjournment of the work session at 4:00 p.m., and that at 5:00 p.m. the Local Participation Committee would meet.

Mr. Weingart asked if any members had reports, and none did. He then noted that a press release was being prepared regarding the announcement of agricultural grants which the Council will make available to Highlands municipalities and counties, and that a letter regarding same would be sent to all county agricultural development boards. The press release also explains that the applications would be due between the present time and January 1st, 2007. He noted that this information will also be posted on the Council's website.

EXECUTIVE DIRECTOR'S REPORT:

Mr. Dante Di Pirro reported that within the next couple weeks a water resource engineer would be joining the staff to assist with plan development guidelines and standards, as well as regulatory review of applications.

Mr. Weingart then turned the meeting to Ms. Mimi Letts for the first committee report.

COMMITTEE REPORTS:

Ms. Letts reported that the **Local Participation Committee** met on September 14th, 2006 prior to the Council's work session. The committee discussed the requirement of the Highlands Act that the Council conduct six public hearings prior to approval of the Regional Master Plan, with one meeting to be held in Trenton. She advised that several venues were suggested and examined, as was the need to obtain large rooms that would accommodate up to 250 people or more. Ms. Letts also advised that Ms. Patty Sly has been following up on some of the venues suggested. The committee also addressed what time the sessions would be held, some being

scheduled for the evening and some during the day. She noted the proposed format for the sessions would be to have staff provide an introduction and brief overview and then provide as much time as possible for comments. Ms. Letts said the committee also discussed the need to get information out prior to the sessions to allow maximum input from the public. She noted that compact discs containing information about the plan would be made as soon as the draft is approved to be provided to the public. Ms. Letts advised that the committee would also be scheduling outreach sessions with county and municipal officials to educate and provide information about the plan and also obtain their input. Ms. Letts noted that the committee would be meeting again that day after the work session and public availability session ended.

Ms. Pasquarelli reported on the **Land Conservation Committee** which met on August 8th, 2006. She suggested that the members review the letter to Governor Corzine within their meeting packets. The primary goal at the meeting was to discuss what efforts could be undertaken to ensure the reauthorization of the Garden State Preservation Trust. The committee examined actions and key points which the Council could recommend and a consensus was achieved which is reflected in the letter. Ms. Pasquarelli said there is a great need for an extension of the 2009 sunset provision in the Highlands Act for purposes of appraisals and determining pre-Highlands Act values. The committee also focused on what the possible impacts were to lands preserved under existing Green Acres, SADC and SHPO program rules, and how lands the Council designates in the RMP for conservation or preservation will fall outside of those programs' eligibility and the committee recommends that the trust take measures to protect these properties. Ms. Pasquarelli said the committee further recommends that the trust funds be used to capitalize the Highlands TDR program. She noted that necessary immediate activities were completed to request the Governor's assistance with reauthorization of the trust.

Ms. Pasquarelli, next reported on the **Budget & Finance Committee** which met on August 31st, 2006, at its first meeting after the end of fiscal year 2006. She advised that the fiscal year 2006 reports were reviewed and finalized by the committee, and said that a package reflecting the Council's funding history and how funds were obtained and utilized toward start-up costs of the Council and all expenditures, has been initiated by the staff. The committee next began work on development of the fiscal year 2007 budget. Ms. Pasquarelli noted that the committee members examined preliminary allocations of the Council's \$3 million dollar State appropriation, and reviewed costs as to operating budget as well as costs for the Regional Master Plan budget. Ms. Pasquarelli noted that the committee reviewed the first draft of the FY 2007 budget packet and advised that staff will continue to update and finalize that information to be presented to the Council for its review.

Mr. Weingart next advised the order of topics under number 9 on the agenda would be reordered with steep slopes being first. He also noted that the documents being examined were available to the public on the receptionist table in the lobby.

DRAFT RMP WORK SESSION TOPICS:

Steep Slope:

Mr. Di Pirro noted that staff will identify the items throughout each of the documents and reference by number what area is being introduced in order to assist the public to follow along with review of the materials. He said that Mr. Balzano and Ms. Chris Ross would present.

Mr. Balzano thanked the staff for their extraordinary dedication and energy that they have extended toward the work sessions. He further applauded the high level of flexibility they have shown while preparing complex items for the work sessions and noted how proud he was of their efforts. He also extended gratitude to Mr. Ron Farr and Mr. Dag Madara from North Jersey District Water Supply Commission who have worked diligently and quietly behind the scenes on their own time at no cost to the Council, and said that their assistance and input has been invaluable. He introduced Mr. Farr at that time to the Council.

Mr. Balzano introduced that as to steep slope and resource constraint issues there are essentially three goals to accomplish. Staff will provide recommendations to the Council to obtain its input as to what constitutes the resource being examined. Steep slopes will be examined in percentages to define the resource. The second goal is to describe how each resource defines the Land Use Capability Map (LUCM). He noted that third to be identified moving forward with conformance and application review process, will be what standards are necessary to apply in order to protect the resource. Mr. Balzano said the immediate focus should be concentrated on individual resources, defining the resource, define how it will inform the map, and define what standards to apply for future protection of that resource.

Mr. Balzano said that policy recommendation number one is to recognize steep slope as an important required element of the RMP, and recognize its use in developing the LUCM. The recommended standard to inform the LUCM is for protection of steep slopes at or above 15%. Mr. Balzano noted significant past discussions related to the DEP standards within the preservation area. Those standards range from above 10% but for planning purposes of informing the LUCM, it is recommended to use 15% as the benchmark to identify lands that significantly constrained. He stated that additional recommendations would address site plan review where slopes are between 10 and 15 percent slope. Mr. Balzano advised that it is a recommendation to establish 15% slope or greater as steep slope for purposes of LUCM.

Ms. Letts noted she thought the language could be clarified because with 15% set as the standard, the references to 10% could cause confusion of that standard. Mr. Balzano noted that there are situations in which lesser slopes raise a resource management concern. He explained that between 10% and 15%, there are concerns associated with disturbance of soils if they are in close proximity to a surface water feature. He noted that issue is addressed during site plan or smart design standards being applied on a site plan level. He advised that for purposes of planning for the region, identifying constraints of lands that are appropriate or inappropriate for development – 15% is felt to be more reasonable and more defensible.

Mr. Salovaara asked if there would be a lesser standard than what is in the DEP standards. Mr. Balzano said that would not be recommended and noted that in the preservation area that it is recognized the 10% to 20% standards in the DEP rules would apply. Mr. Balzano advised that for purposes of identifying constraints on a regional scale, 15% is the recommended guideline. He stated that site design standards as well as regional planning standards. Ms. Letts asked if 10% to 15% will be used in the planning area, and Mr. Balzano responded that 10% to 15% would be used in the planning area on a site design level when the area is proximate to a surface water feature. Mr. Balzano said the DEP rules currently state between slopes of 10%-20% alterations are to be minimized to the slope. Greater than 20% any disturbance is avoided. The minimization allows for certain activities including linear developments such as roads or driveways across that slope. Mr. Balzano noted that the recommendation is that rule could apply in the planning area where it is near a water body, but that 15% be the planning standard.

Mr. Scott Whitenack asked whether that standard would apply only in buffers or anytime the Highlands Council deems it would be effective. Mr. Balzano said those discussions will take place at the next meeting when the Council examines open water and riparian. The recommendation would be within the open water or riparian protection area which will vary according to the quality of the receiving waterway.

Mr. Salovaara asked how this method is blind to the line. Mr. Balzano said that in a regional planning context as lands are identified that are constrained and not appropriate for development, that the Council would not apply a different standard between the preservation and planning area. He noted however, that on a site design level, the Council could recognize that within the preservation area there may be more stringent standards than that which apply in planning areas, depending upon the resource. A blind to the line planning concept uses one

standard to identify land constraints, and then on site design levels, a more stringent standard in terms of protection of slope would apply to the preservation area than to the planning area.

Mr. Salovaara said he has concerns over the fact that the site plan level is not blind to the line. Mr. Balzano said in terms of developing the LUCM it is blind to the line and establishes a 15% slope throughout the Highlands Region. He noted that extensive discussions took place in the past when the DEP rules and restrictions applied to 10% and 15% were analyzed. Mr. Balzano noted that the DEP standards only apply on a site plan level, but the Council's standard applies on a regional basis regardless if it is in the Preservation or Planning Area. He further advised that the consideration of consistency has been analyzed.

Mr. Schrier noted what Mr. Balzano has said is not dissimilar to what a municipal planning board does. Mr. Tim Dillingham asked why it was not desired to draw the LUCM to include lesser slopes and then establish standards. Mr. Dillingham remembered the fundamental arguments and discussions over the alteration of lesser slope and asked for clarification on the inclusion of 10% to 15% into the LUCM versus its exclusion, and what that means in terms of policies which will flow from that designation.

Mr. Balzano said the difficulty when including slopes in the LUCM is that it is not a feature which is easy to define since it occurs throughout the area and is very fragmented in many areas. He noted the need to continue to develop a much more robust method for evaluating slope. He advised that in the interest of advancing the plan to draft in October, a standard was chosen to ease incorporation into the map, because slope below 15% become problematic and diffuse.

Mr. Balzano noted that even above 15% it can still be problematic, but there is a provision which recognizes that in areas close to a waterway the concern becomes more significant. For purposes of practicality and to adequately fulfill the goals and requirements of the Act, the recommendation is 15% near water as the best way to address slope constraints on future development, and that during site plan -- specifics will be addressed as to sensitivity of slope at a lesser percentage of 10% to 15%.

Mr. Weingart thanked him for the clarification and said for example if there are two identical development sites, one is in Planning Area and one is in the Preservation Area, in terms of slope, was the recommendation that they be addressed differently. Mr. Balzano said that was both true and appropriate in that between 10% and 15%, the restriction should only apply and not prohibit all uses, and should restrict use that is otherwise incompatible or represents a threat to a water resource, which is the driver behind protection of slope where increased rates of erosion and sedimentation to surface water features are examined. Mr. Balzano noted where a 10% slope is distant and isolated from water, it is easy to stabilize, and where alteration or disturbance of soil does not pose a high degree of erosion or risk, slope should be treated between 10% and 15%. He also advised that the DEP rules apply the same standards for slopes between 10% and 20% and allow for road cuts not only for 10% slopes that are distant from water, but also on 10% slopes that are proximate to a waterway.

Mr. Weingart noted that in general the approach is blind to the line, but the Act treats the Preservation Area and Planning Area with different standards, the policy recommendations in some cases will differ. Mr. Balzano said that in some cases there will be harmonization provisions for post-plan revisions to standards to achieve regional consistency.

Ms. Pasquarelli noted with regard to what Mr. Schrier mentioned as to zoning and specific ordinances, what is being discussed impacts how the LUCM relates to those considerations.

Mr. Balzano said the RMP has two major purposes and functions, one being the LUCM, which identifies according to the requirements of the Act where resources are and what constitutes a significant resource, also

what the effect of those resources are on development potential, and what protection measures are necessary to ensure that resource values can be sustained over time.

Mr. Balzano said it is necessary to define and divide the Highlands region into zones based upon their degree of constraint, sensitivity and regional significance. He noted that as to steep slopes, identification of zones with the greatest limitation on future development, as including but not limited to slopes above a certain level. The staff recommendation is that level be set at 15% which indicates a high risk of destabilization of surface water quality.

Mr. Balzano said the second function of the RMP is to establish the framework and how standards will be applied at the municipal level as towns review and approve site plans. Local planning officials have one set of standards which are permissible and conforming uses to apply to a zone, and then another set of standards typically referred to as bulk standards, which apply to use of a site conforming to designated zoning.

The LUCM will determine and define zones and uses in terms of whether development is appropriate or not be it commercial or residential. The RMP standards and smart growth resource protection standards would apply at a site specific standard. Mr. Balzano noted that slopes are complicated because there needs to be a standard to inform the LUCM identifying where significant constraints are, and how to define the zone to capture it. Secondly considered is how to treat that resource where it occurs.

Ms. Letts asked how the slopes were being identified for the purposes of the LUCM. Mr. Balzano replied that there is a three-dimensional model of the Highlands Region. He said that the Council authorized that next steps be taken to refine the data through digital elevation mapping called Lidar, to do an over flight of the Highlands Region to generate graphic contour topographic maps at two foot contour intervals which are necessary for site design work. Mr. Balzano said the staff does know at this time where the 15% slopes are, at 5% increments. Mr. Borden noted the Council faces the challenge and is charged with reconciling the DEP standards into its resource assessment of the Highlands Region. He noted the reconciliation process results in two different approaches, one as relates to the definition of zones within the LUCM and one as it relates to the site plan standards.

Ms. Carluccio asked about the fact that Mr. Balzano noted information as to 10% is scattered or unclear, and asked if in the future it will be possible to harmonize the two. Mr. Balzano stated that 10%-15% slope occurs just about everywhere in the region and that a model is being completed to capture that issue, but it will not be done by the time the draft plan is released. He noted that will be covered under item four in the policy paper.

Mr. Dillingham said it could be dealt with by creating a two track construct, is the Council creating something that is comparable to the DEP standard. He noted his concern about the language of the Act as to setting standards for slopes and that the Council does not drop out the 10% to 15% slopes. Mr. Balzano said that they would not be disregarded on the site plan level, but that they were not being used to inform the LUCM.

Mr. Salovaara suggested that the Council should state in the document whether it is blind to the line or not, because if it is not going to be, it needs to say so and why. Mr. Balzano pointed to item number two of the document which recognizes that for purposes of identifying the regional protection zone as the most environmentally sensitive and include those slope constrained lands proximate to waterways. These are the planning standard for defining constrained lands and defining zones in the LUCM. Ms. Letts suggested that this be written in the document rationale to be clearer.

Mr. Balzano pointed next to item number three, which addressed the standards to apply regardless of zone in the LUCM, how to protect steep slopes and not compromise the resources. This area deals with areas higher than 15%.

Mr. Dillingham asked what the difference was between riparian and close proximity. Mr. Balzano replied that riparian addresses site specific standards. Mr. Schrier noted the need for clarification for municipalities. Mr. Balzano said that will be achieved during plan conformance and will be subject to Council approval. Ms. Pasquarelli and Mr. Schrier said the Council is making policy decisions at this point, and Ms. Pasquarelli noted that staff has thought a lot about it, and at this point, this is what we can determine. Mr. Balzano noted that less than 15% and above has been discussed at length by staff, and would need to apply the specificity during pre-conformance to provide additional details.

Mr. Weingart said perhaps a municipality with all 12% slope will see this standard and decide it doesn't apply to it. Mr. Balzano said that number one of the document advises that not all soils erode at the same level. He said there are slopes that are forested which are much more stable against erosion than one that is not. DEP has used land capability mass in their standards. The Council is also examining lands and the ability to sustain erosion. The depth of the soil on top of bedrock is important and naturally deep soils are better. Staff has established a four-tier system for evaluating slopes as to percentage of the slope, and apply framework. Mr. Salovaara asked if changes were prohibited if slope is above 20%, and Mr. Balzano replied that land cannot be cleared, but that maintenance of uses would be established for uses already in place on lands that are overdeveloped.

Mr. Salovaara would like to be sure and suggested writing the situations down and to be very specific. He asked if the standards to inform the RMP are adequate for the draft. Mr. Dillingham thought it should be recommended to see clearly the standards imbedded in the Act for slopes above 15%, which is justified by the work staff has done, and then note that on slopes above 15% uses shall only be maintained. He noted that in lower slopes it becomes more difficult but thought the Council should be clearer to articulate for the municipality how to deal with existing uses that are non-consistent in specifics.

Ms. Calabrese asked as to the lower slopes how much input municipalities will have. Mr. Balzano said a great deal of input. Mr. Schrier said the Council wants specifics and Mr. Balzano said the staff is working to provide additional specifics. Mr. Schrier said the document does not deal with GPS on the ground, and is broader policy that will be more specifically addressed later, noting though that towns want to know where they are. Mr. Balzano assured that they would. Mr. Salovaara thought the format was not quite right and suggested beginning with requirements instead of recommendation. He noted there were 5 paragraphs about generalities, but only a couple on requirements. He hoped that the requirements in the draft would provide a number. Mr. Borden noted that the master plan was not a master ordinance. Ms. Chris Ross noted that the policy is not general when someone is 100 feet away from a stream. Ms. Letts asked for an appendix, at which point Mr. Weingart asked Mr. Balzano to go through all the policies and then have members discuss.

Mr. Balzano pointed to number four where there were 4 steep slope thresholds for Smart Design Standards: Severe Slope Constraints, Moderately Severe Slope Constraints, Moderate Slope Constraints and Low Slope Constraints.

Next Mr. Balzano addressed number five, where Pre-Conformance Strategies were recommended, which includes the development of technical guidelines and procedures for development of steep slope protection standards for inclusion in municipal zoning and land use ordinances.

Mr. Balzano next pointed to number six, the Conformance Strategies recommended in furtherance of the goals and requirements of the Act. These would require the inclusion of steep slope protection standards for conformance with the RMP.

Next Mr. Balzano addressed item number seven, which are the 5-year Resource Protection and Planning Goals. This included the continued identification of steep slopes within the Highlands region using refined topographic mapping.

Item number eight addressed Coordination and Consistency measures recommended to promote active participation with state and federal agencies including the development of a coordinated regulatory review program with the DEP permitting process to achieve consistency of permit actions, open space acquisition priorities, surface water quality standards and restoration activities consistent with the protection goals of the RMP.

Item number nine addressed the Local Participation Considerations, which are education efforts to promote understanding and support for the RMP resource protection goals at the local level.

Ms. Carluccio suggested since a certain format needs to be followed, she thought it might help to clarify later in the document when discussing standards how they apply to all the areas – for example a schematic or a picture. Mr. Balzano said a cross section or side view of a stream could be viewed which goes up in varying degrees, whether it be between 15 and 20%, which would show if you are within 500 feet you could color code the changes in elevations. He noted it would be beneficial if there was the luxury of time to show the Council.

Mr. Dillingham noted as to the value classifications listed in number 4, whether break point was generally 15% and noted it would be interesting to understand how these clash with the ones in the DEP regulations. Ms. Pasquarelli noted the Council is doing two different things. Mr. Dillingham agreed, but noted the Council has a challenge of avoiding creation of holes where activities don't get regulated that ought to. He thought the language and the tools are the same but there is a balance point between the plan and the rule because there are existing steep slope ordinances that are good. He noted he would like the DOT and other state agencies added into the language.

Mr. Schrier said under number eight and the second bullet point as pertains to NRCS coordination, he asked who was in control if coordination was not achieved, and who would make a final decision. Mr. Balzano said that individual state agencies have regulatory power over some areas. Mr. Borden noted there will be exempt activities exempt from the Council's jurisdiction and noted that it can incorporate standards that sister agencies may utilize. Ms. Pasquarelli said it was not the agency that has to comply and Mr. Borden said that was correct. Mr. Di Pirro stated the Council will take action to work with agencies to harmonize certain issues because if they have some jurisdiction and the Council has some jurisdiction, then we have to work together. Mr. Schrier said he believes the Council is perceived by the municipalities as regulating and having jurisdiction. Mr. Di Pirro answered that the RMP standards can be utilized where the Council has jurisdiction.

Ms. Carluccio had questions about agriculture and the need to coordinate with NRCS and the USDA in this regard. Mr. Borden noted that farming activities are not subject to DEP standards in the Preservation Area. Ms. Carluccio said she would contact staff to suggest some wording changes to avoid vagueness. She thought as Mr. Dillingham mentioned at one point to not use the word avoid and choose clearer language. Mr. Schrier said using the word "avoid" could be because the Council is not an enforcement agency, and suggested using the words "not allow disturbance" instead of "avoid disturbance." Ms. Carluccio said the Council does need to make clear distinctions and agreed that the word-smithing is very important.

Mr. Salovaara said he would like clarity as to the municipal pre-conformance phase and asked if the Council would put out the draft RMP and then go out to towns and take recommendations which could in turn soften the requirements. He agreed with what Mr. Dillingham said that the Council needs more specificity as to what it requires in the RMP. Ms. Pasquarelli also agreed and said that would constitute cross-acceptance, and the Council is not looking to conduct cross-acceptance. Ms. Carluccio said the Council should define the terms as

to what the Council will and will not be allowing. Mr. Balzano said that pre-conformance is the time to analyze details because towns need the Council to tell them what to do. Mr. Salovaara said the RMP doesn't state clearly enough what Mr. Balzano is explaining.

Ms. Letts thought it would be impossible to conduct all measures necessary for informing municipalities by October, and thought the Council should attempt to put out the best plan possible with what it has. Ms. Calabrese also noted it was unrealistic that the Council could expect to look at every single case in such a huge geographic area in time.

Mr. Salovaara asked how the Council will decide what to allow, and whether a town was in conformance. Mr. Schrier said that all 88 of the municipalities need reflection and examination. Mr. Weingart noted that the Council is charged to make the plan as specific as possible. He noted some cases will be clearer than others, and that the policy overlays are broad at this point. He added that at some point the Council will fit them all together.

Ms. Carluccio suggested that the Council create guidance documents as it moves forward, noting the need to decide policy issues now. When the Council learns that an issue will come back to it from staff, when could the Council expect to resolve those issues, and asked if it would have to wait until a vote on the draft RMP. Ms. Carluccio thought there was a need to address these issues. Ms. Pasquarelli said she agreed with everything Ms. Carluccio said because the Council could end up coming in on October 26th with 47 objections to the document.

Ms. Pasquarelli added that pre-conformance is not about whether the Council will allow a municipality to conform, rather it will set the standards and then there is no flexibility in her mind. Mr. Weingart noted he would like this paper reworked and have staff bring it back to the Council.

Ms. Letts said she would like the run-in addressed as did Mr. Salovaara, as to the issue of the wording "avoid or prohibit" and then what "minimize" meant. She asked whether there could be a ratio the Council would apply and have decisions based on that. Mr. Weingart reminded the members that if they have suggestions on any of the policy papers, to be sure to send them to the staff.

Mr. Dillingham suggested rather than have staff re-write the whole document, maybe a one page document that says "these are the suggestions made by members" with bullet points, and no more than that. Mr. Di Pirro stated he wants to clear as many issues as possible now, and he thanked Mr. Dillingham for his suggestion, so that staff doesn't need to rework the whole document because there are other items staff is already working to cue up for the next work session. Ms. Pasquarelli noted the need for reorganizing the document to avoid having problems.

Mr. Di Pirro said staff will provide contexts for clarification purposes. Mr. Weingart agreed it would be helpful to give guidance to staff, but asked that the Council move on to the next topic. Mr. Di Pirro suggested that the next policy addressed be recharge rather than forest, since Mr. Kurt Alstede was expected to arrive but was not yet present. He advised Ms. Lisa Voyce would present the next topic.

Prime Ground Water Recharge Area Protection Requirements:

Ms. Voyce noted the most important factor to consider was that groundwater recharge directly impacts the water supply and ecological resources of the Highlands Region. Mr. Di Pirro suggested Ms. Voyce follow Mr. Salovaara's suggestion to first identify the resource such as HUC14s and then the site specific design standards in numbers three through seven. Ms. Voyce provided an overview that staff utilized the USGS data to rank resources in a relative basis that were the most productive in a groundwater recharge area to protect the water quality and quantity.

Ms. Voyce noted that item number one contained the recommendations to be included in the LUCM. She noted it was necessary to determine where the most water enters, because that is where the most pollution enters as well. The staff recommends in item number two that Prime Ground Water Recharge Areas include lands within a HUC 14 subwatershed which provide 40% ground water recharge relative to other land areas during drought conditions.

Ms. Carluccio asked where the 40% figure came from. Ms. Voyce stated that staff examined other regional planning efforts including the study in the Raritan Basin. She explained the analysis that was conducted on five different levels and explained the process and also the reason why this approach was taken. Mr. Weingart noted he believed this was the type of language Ms. Carluccio would like included in the rationale section, and Ms. Carluccio agreed.

As to policy number three, bullet one Ms. Voyce stated was the most protective zone, designated as the Regional Protection Zone, including prime ground water recharge areas for incorporation in the LUCM. Ms. Carluccio asked whether the language maximum extent possible was chosen as a result of the language of the Act. Mr. Borden noted that it was chosen for the purpose of building the LUCM, not how to treat applicants. Mr. Weingart asked how the phrase would change in the RMP. Mr. Borden said there will be some adaptations when staff writes the RMP. Mr. Di Pirro noted this would be a placeholder for the Council in October so it can view the integration and added that phrase will not be in the plan. Mr. Dillingham stated he did not want that language used. Mr. Alstede arrived and joined the meeting at this time.

Mr. Salovaara noted the resource within a HUC 14 zone is already preserved by other regulation and added that everyone must understand the recommendation being considered for approval. He said he was troubled that it appears to mean that such a significant part of what the Council does is to look at recharge areas instead of whether they are forested or not forested. Mr. Salovaara said he was not comfortable saying this additive process of scoring areas was appropriate for recharge areas. Mr. Di Pirro noted that staff would provide the Council clarification. Mr. Dillingham noted that if it is important enough to be dealt with on its own, then there needs to be a tool to inform local ordinances on how to treat the resource.

Ms. Voyce noted this was a critical issue and that staff is aware it is a very important document. Ms. Letts asked how staff decided it should not stand on its own and not preclude development. Ms. Voyce said recharge is usually better on flat land. Ms. Carluccio asked whether this was the same fundamental problem, where primary resources are to be left intact and suggested it would be better to say the Council recognizes a recharge area as being critical and that these are the things that you cannot do. Mr. Weingart noted that the second bullet point dealt with that.

Mr. Weingart asked for an explanation of the difference between discourage or prohibit. Mr. Dillingham thought the Council would have to state “no loss of quality or quantity” and develop a plan that would lay out how that could occur because the Council wants towns to protect recharge areas. He added that the Council needs to know how they are going to achieve that. Ms. Voyce said that is addressed later in the section which recognizes best management and the methods are listed. She noted there are injection wells and remedies which have been conducted that have to be done to maintain the waterways. She added they are also addressed in the coordination and consistency section.

Mr. Salovaara said he would like the three verbs changed because “restore” is part of the Council’s charge. Ms. Carluccio asked how bullets two and three were different and thought they could be combined into one to describe areas that are not supposed to be disturbed, and then what happens if the area is disturbed. Mr. Weingart noted that what could be confusing the point is that the same phrase is in bold in both bullets.

Ms. Pasquarelli agreed that word-smithing would be very important. Ms. Letts asked the difference between number three bullet two, and number six bullet one, and Mr. Di Pirro replied that number six is site specific. Ms. Letts noted that one bullet says encourage and one says restrict, and thought it could be difficult to be consistent as the Council makes amendments to the plan. She asked whether there could be a set of standards for each zone because this is potentially very confusing for municipalities.

Ms. Carluccio noted that item number three designates the areas that are most pristine which should not be disturbed. However, under item number four it appears there is some latitude, and she wanted it clarified as to the difference between the protection and conservation zones. She thought they should be listed very specifically. Mr. Dillingham asked since there is a policy issue to protect the recharge areas, he would like clear criteria to guide the Council in deciding where it is appropriate, and under each - what the criteria are to determine if it is appropriate. Mr. Dillingham stated it should be dealt with as to treatment of brownfields, and coverage, and would like those types of policy decisions included. He asked for clarification on the threshold questions, because the Council has to meet 40%. Mr. Dillingham said the Council is not addressing the question as to when it would be appropriate to establish a process for approvals of those areas.

Mr. Salovaara thought the process should be articulated in the documents and not just the standards. The Council is going to amend the RMP and towns have to adhere to the RMP. Therefore, Mr. Salovaara said it was not clear to him that courts would agree with and until it is amended, not adhering to the RMP would be allowable. Mr. Salovaara said if the Council is silent and says it will do so later on, it will not work. Mr. Di Pirro said that it does belong in the plan and is adoptable and amendable in 18 months. Ms. Joyce noted that even in redevelopment zones there is the requirement for no net loss and no degradation.

Ms. Carluccio said if an application is received and then comes back with a site plan that brings back more water than was originally present, it enhances the quality. She thought in those instances there should be a higher standard to provide a means for improving levels of degradation which are already present.

Ms. Joyce pointed to item number seven, which addressed Smart Design Standards recommended for inclusion in the RMP to encourage appropriate conservation based design throughout the region. Ms. Carluccio said she thought bullet number one (a) was unnecessary, and noted that it was contradictory to one (b) in the instance of an LID.

Mr. Schrier wanted clarification on what LID stood for. Mr. Di Pirro noted that was the term for Low Impact Development. Mr. Balzano offered an explanation for clarification, and Mr. Weingart noted that what is written was not as clear as the explanation just given. Mr. Di Pirro noted it was also a list of conditions. Mr. Dillingham thought that was not what Ms. Joyce had said and thought she stated these would be standards that apply in Specially Planned Areas. Ms. Joyce clarified that they would apply to any area.

Mr. Dillingham said there are no measurable changes in the Category One language which he finds to be a problem for municipal planning boards. Ms. Letts said that many towns do not have engineers, and that an applicant would have to retain one and then it would be required that the municipality hire one for review. Mr. Dillingham said essentially the Council is building in a burden and thought the Council should have non-debatable standards.

Ms. Joyce pointed to item number eight, which addressed Regional Growth Standards which staff recommends for inclusion in the RMP for towns that have regional wetland management programs as mandatory requirements for any site plan application subject to review and approval by the Council.

Mr. Salovaara asked if what the Council was saying had to be part of a town's master plan and Mr. Balzano replied that was correct. Mr. Schrier asked if this pertained only to commercial development, and Mr. Balzano

replied it applied to any development which compromises recharge areas. Mr. Salovaara also asked whether this would supersede what is already in place. Mr. Balzano replied yes and no. Ms. Letts noted concern over the burden on towns which will keep them from buying into the plan. Mr. Salovaara agreed that conformance period has a 6 month trial period which should be kept in mind, and that the Council needs to advise towns in 60 days. He said it is important to advise them what the requirements are.

Ms. Carluccio suggested that both bullets are not standards but more like methods and thought it was not exactly appropriate and that the restoration language should be explained. She noted a bullet was also missing on LIDs. Mr. Weingart suggested going back to this issue to determine whether it is correct and implementable.

Mr. Balzano noted the Regional Growth Standards that are recommended are to protect the region. Mr. Dillingham was concerned about the language and Mr. Balzano said staff will work on that language further.

Mr. Balzano pointed to item number nine, outlining Pre-Conformance Standards. Mr. Dillingham asked whether the list would also include allowable uses as to LIDs and BMPs because the Council should not allow commercial development in those areas. Mr. Balzano stated the language prohibits any use that would increase beyond existing impervious cover.

Mr. Balzano next noted item number ten addressing Conformance Strategies. He noted these would require inclusion of Prime Ground Water Recharge Areas in municipal and/or county conformance documents, master plans, zoning and land use ordinances as the means to address groundwater recharge. Ms. Letts asked if the Council will provide the ordinances, and Mr. Weingart noted that was addressed in number nine. Mr. Schrier thought the two item numbers could be switched.

Mr. Balzano noted that item number eleven addressed the 5-year Resource Protection and Planning Goals which are recommended to further the goals and requirements of the Act to ensure continued refinement and development of the RMP including the coordination of programs, funding and activities among public and private entities to protect water recharge restoration activities. It would also provide for the development of municipal Ground Water Recharge Area LID and other methods of protecting recharge quantity and quality.

Item number twelve addressed Coordination and Consistency Considerations. The recommendation is to coordinate with other state and federal agencies such as USGS, Army Corps and EPA, to refine and further develop that list.

Item number thirteen addressed Local Participation Considerations which provide for development of education and technical training for local officials to promote understanding and support for the RMP resource protection goals at the local level.

LUNCH BREAK:

At 1:30 p.m. Chairman Weingart called for a lunch break and asked that the Council reconvene at 2:00 p.m.

At 2:05 p.m., Chairman Weingart called the meeting back to order. He noted that the next item for consideration would be presented by Mr. Balzano.

Forest Integrity Protection Requirements:

Mr. Balzano noted that item number one addressed Forest Integrity Protection Requirements recommended for important contiguous forest resources to be maintained and included in the LUCM. Item number two delineated the qualities of an area of forest. These areas provide enormous ecological benefits and have the

following indicators: Total Forest Area, Core Area, Forest Patch Size, Proportion of Total Forest and Distance to Nearest Forest Patch.

Mr. Balzano noted that Forest Patch Size relates to how large a forest is, but over a unit area, how much of the landscape is in forest. He noted there is a list of indicators of what a forest has as necessary to protect quality. For purposes of defining a resource forest area, 500 acres or more of contiguous forest area is considered. Also areas with Core Areas, and species that require forest interior area greater than 250 acres or cover greater than 45%. He noted the effects of fragmentation cause more loss of ecological integrity and there are three criteria to outline.

Ms. Letts noted her misunderstanding as to the 45% designation. Mr. Balzano noted that 45% examines how much cover there is, such as the mean forest cover changes, and is a measure to identify the area in a region that is predominantly forest. Ms. Letts asked how this would be configured, and Mr. Balzano replied it is calculated by 10 feet and repeats to create a data base that looks at the distribution of forest over an area.

Item number three, examines forest value as to what the quality of the forest is, while taking into consideration the HUC14 watershed level to maintain the public benefit. Mr. Alstede asked about section 13:20-28 which is the exemptions portion of the Act and said any rules or regulations adopted by the DEP or any regulations in place by local government need to specifically conform with the requirements of the Act. Mr. Borden noted this was contained in section 30 of the Act and it may be the state forester looking at the RMP that needs to have information to determine if it would be exempt from any requirements. Mr. Alstede thought there should be incentives to promote participation and Mr. Borden agreed. Mr. Alstede further said this should be used for publicly owned lands as well. Mr. Balzano said the hope and desire is to inform both public and private lands, and the uses identifiable as to forests necessary to protect what land uses and standards relating to site plan, and priorities to benefit as many as possible.

Mr. Alstede asked whether an overlay of those areas was available and Mr. Balzano said there was. Mr. Alstede asked to view the overlay to see how forests fit in with all the other overlays. Mr. Balzano displayed in a demonstration a layer with different shades of green, which illustrated forests with the 45% threshold illustrated in dark green. The different levels of forest cover have different values as to protecting the water resources.

Mr. Balzano advised that staff is working on the integration of the different layers. The benefits of each zone are outlined in the essential criteria. He noted that as development continues and staff receives input from the members now, that input will flow into what is developed. Mr. Balzano advised that the data being shown was completed by the Rutgers Center for Spatial Analysis. He noted that the forest element is a big driver in the RMP. It is habitat for both terrestrial and aquatic resources with tremendous air quality benefits as well. Healthy forests are very important to air quality both locally and globally.

Mr. Alstede mentioned that deer overpopulation is also damaging forests. Mr. Balzano noted there was a recommendation in the plan for that issue as well. He advised staff has gone through a very thorough series of indicators. Pertaining to the illustration being shown, the dark blue areas are high quality, and yellow are impaired. He noted the layers identify high integrity down the line to low integrity forest areas which possess less value. Mr. Alstede said he was interested in seeing all the layers together.

Mr. Balzano said the policy recommendations as to the different zones were for the Land Use Capability Map with the recommendation to include all the dark blue areas. The recommendation was to discourage, prohibit or restrict clearing of forests within zones that have moderate cover. He noted there will be some allowable flexibility so that limited development can occur without impairing. Ms. Carluccio noted she preferred the word shall instead of should in the third bullet. Mr. Balzano said there would be public health and safety

considerations in the interest of maintaining forest integrity. Ms. Carluccio thought that issue was not stated clearly and said it should not appear in this section if it is covered somewhere else. All of these things are subject to protection in the Act. Mr. Borden noted the waiver covers that. Mr. Schrier agreed that the wording is important.

Mr. Salovaara said the Council ought to be more restrictive because under the Right to Farm Act he believed trees could be removed. Ms. Letts wanted clarification as to what clearing means, such as did it refer to cutting one tree down, or cutting down a hundred trees. Mr. Alstede said he doesn't see where the Council has a tremendous amount of authority there and has to get people to join involuntarily to be effective. He said that the Legislature recognized forestry as a separate issue and noted there are a lot of ways that unscrupulous people can achieve bad practices. He wondered how the Council would achieve stewardship. Ms. Carluccio stated this would apply if the land use changed, and thought the Council hands were tied until there is a change in land use. She thought the words no clearing could be changed to say no cutting and said the terms need to be defined clearly. Mr. Alstede offered the scenario where someone purchases 100 acres, they could get a forester, do farmland assessment, and possibly clear the trees.

Mr. Balzano stated most forest in the region has to be managed. He noted that page three continues with the incentives for forest acquisition, and outlined providing benefits to landowners through TDR bonuses or acquisitions. Ms. Carluccio acknowledged that, but noted if there are a lot of ways to protect land, and wondered if the Council should be using TDR. Mr. Dillingham said he thought the opposite in that it sounds like the fact that this Act has been enacted, the Council may not have a lot of control over forests which are integral to the water. He suggested the need for a more detailed assessment as to how protective the provisions are and the need to take a hard look at how to handle vulnerable forests. Mr. Balzano said staff will continue to look to benefit the landowner for being a steward. Mr. Salovaara said the Council might consider also looking to the Legislature for assistance.

Mr. Balzano said that item number five of the policy document addresses the Regional Conservation Zone, and inclusion of all Moderate Integrity Forest areas to the maximum extent possible. This section also requires forest protection and restoration plans to mitigate forest losses through Best Management Practices and Low Impact Development.

Ms. Letts noted there should be some attempt to provide for restoration. Ms. Carluccio thought that may come at bullet three under number five. Mr. Salovaara restated his concern about falling under the ambit of the Right to Farm Act and to compare the amount of trees that have been taken down as to how many are to be allowed to be taken down. Mr. Alstede noted that the Right to Farm Act does not allow cavalier practices. He said there are very strict guidelines and regulations and would like the focus to be on benefiting land owners for practicing good standards.

Ms. Carluccio asked for a definition for clearing. Mr. Balzano stated that within a high resource area the Council would not want to encourage a use that will result in degradation of the resource. He also said this will help to generate restoration. Ms. Carluccio requested defining a list of things that cannot be done such as clearing for ski slopes. Mr. Balzano advised staff has been looking to define the resources and activities.

Mr. Balzano pointed to item seven, subparagraph b) which notes permissible uses. Mr. Salovaara thought the Council should start by specifying what it means by restoration. Mr. Balzano agreed. Item seven subparagraph c) encourages redevelopment of previously developed areas, and Ms. Carluccio asked that the phrase prioritizing uses to encourage redevelopment be added. Mr. Balzano noted the next bullet item established minimum requirements for Low Impact Developments.

Item eight recommends Smart Design Standards for the RMP in furtherance of the goals and requirements of the Highlands Act to encourage appropriate conservation based on design throughout the region.

Mr. Salovaara asked if what the Council is expecting is to be the regulatory authority for the submission of a standard. Mr. Balzano noted there was a provision for the applicant to come to the Council and inquire whether their plan is consistent with the RMP, and they would then go to their municipality with a letter in hand from the Highlands Council.

Mr. Salovaara said he did not want the Council to be backwards and said it ought to identify forests. Mr. Balzano noted that in all instances an applicant will have an appeal process. This recommendation creates checks and balances. Mr. Salovaara thought it goes against the requirements of the Act in that the Council has to identify the forests.

Ms. Letts stated the Council has to realize there are things that will need to be updated and are subject to changes.

Ms. Pasquarelli asked what the process was for amending the RMP and if it would be done through a formal public comment process. Mr. Di Pirro replied that was correct. Mr. Borden noted that the plan would also be locally updated at the municipal level. He noted the suggestion by Mr. Salovaara that the Council could put on the website all the upland forests that have been identified. Ms. Letts asked that as the Council continues to gather data and release the plan all while learning about the area, it would not be able to update for six years. Mr. Borden said that the Council was not required to wait six years, and could act on new information. Ms. Carluccio noted the standards would be in place and the Council would add areas.

Mr. Balzano noted item number nine, which addressed Pre-Conformance Strategies. The recommendation is to require an approval to remove more than 3 trees on a property. Mr. Balzano noted there were a lot of ordinances out there, and that the Council just needs to customize them to meet its standards. Mr. Salovaara said he would like a portion of this work completed over the next two weeks. Ms. Letts didn't envision towns wanting to go through conformance in 60 days.

Next, Mr. Balzano noted that item number ten addressed the requirements for towns on Conformance Strategies, which state that they have to provide for protection of forest and will be included in the RMP.

Mr. Weingart asked to refer back to the data and how specific it was. Mr. Balzano stated this type of mapping was done on a 2,000 foot magnitude. He noted anything less than an acre causes mapping to become too confused and advised that at a site plan level, a higher accuracy result is achieved. Mr. Balzano stated this was a normal practice for municipalities.

Mr. Salovaara thought the definition of forest needed work. Mr. Balzano noted that the definition of forest was included in a resolution, and Mr. Borden noted it was approved by the Council by Resolution in September of 2005.

Mr. Balzano said that item number eleven addressed the 5-year Resource Protection and Planning Goals. Mr. Balzano explained that these were the recommendations to develop a coordinated agroforestry program throughout the Highlands region, with a proposed amendment to the Farmland Assessment Act to include sustainable management provisions and yearly income adjustments for societal benefits provided by small, forest woodland owners.

Mr. Balzano noted that item number twelve addressed the Coordination and Consistency Considerations that are recommended to promote active participation in the implementation of the RMP among state and federal agencies.

Mr. Alstede noted with regard to item number eleven, that it is almost impossible to amend the Farmland Assessment Act.

Mr. Balzano said that under item number twelve, coordination with the NJ Forest Service and US Forest Service standards would be developed for forestry practices consistent with the protection goals of the RMP as a required element of Forest Management Plans, as well as coordination with NJDEP as to deer population controls within managed woodlands. Ms. Letts asked who would have policing power, and Mr. Balzano noted the Council can go to court and ask for an injunction. Ms. Letts suggested the imposition of fines for violations.

Mr. Balzano noted that item number thirteen addressed the Local Participation Considerations recommended to promote understanding and support for the RMP resource protection goals at the local level and provides for the development of educational programs for municipal officials on methods to develop a Forest Protection and Restoration Plan, as well as programs for land owners and officials for forest management and stewardship methods. Mr. Weingart asked that the Council move on to the next policy item.

Agricultural Protection and Sustainability:

Ms. Kim Kaiser noted that are approximately 120,000 acres designated for farm use in the Highlands of which only 27,000 acres have been preserved. She noted that the definition for Sustainable Agriculture could be found on page eleven, and that the definition was provided by the 1990 United States Congress Farm Bill. She noted however, that that definition does not contain a formula or equation for sustainable farm use.

Mr. Salovaara asked how the 120,000 acre number was arrived at. Ms. Kaiser noted it was obtained through the land use land cover 2002 assessment used by DEP when it conducted aerial evaluations of lands. Mr. Salovaara asked if farmland assessment data was also considered. Ms. Kaiser noted that MOD4 data was considered but wasn't very helpful for this analysis because it covered all uses and provided no distinction between forest assessment and farmland assessment.

Mr. Alstede asked what the total land base designated for farmland use only was, and Ms. Kaiser noted that it was more than 120,000 acres, and that figure could be found in the agricultural technical memoranda on the website.

Mr. Salovaara asked for example if there were 44 to 47 municipalities, and each has a tax assessor who asks the question of how much is woodland management versus how much is farmland, whether the answer could be provided. Ms. Kaiser said that issue was examined, but it was found that records on woodlands assessments alone are not readily available. One goal in the future is to obtain an accurate record and database of those lands. Mr. Salovaara asked then if woodland assessments were excluded from the designation, and Ms. Kaiser replied that was correct.

Ms. Kaiser noted the first staff policy recommendation would be for the protection of Agricultural Resource Areas in the RMP in order to protect and maintain important agricultural resources in the Highlands Region for incorporation into the LUCM.

Ms. Kaiser advised the second recommendation was to establish the Agricultural Resource Areas in the LUCM which include contiguous areas of 500 acres or more, and parcels containing prime farmland soils, also those that are designated as existing agricultural lands.

Mr. Salovaara noted concern about creating takings from a legal point of view. He suggested that the Council spend some time thinking about this question. Mr. Salovaara would like that perspective from Mr. Borden when he comes back to the meeting. Mr. Salovaara thought it was being suggested that the Council is going to say to farmers that they must continue farming. Ms. Kaiser said that she was simply describing prime agricultural resource lands. Mr. Weingart said that he understood the consideration would be where the Council would consider exceptions and have flexibility in terms of avoiding takings.

Mr. Alstede said that this mirrors what was discussed in forestry, as to what activities are specifically listed as exempt in the Act. He noted there are benefits recognized from having the activity occur compatible with the goals, and that use of incentives and recommendations would get people involved. Mr. Salovaara said that he was viewing a reference to land development and land alteration within the area when he mentioned the question as to takings.

Ms. Kaiser noted that the DEP rules are not applicable to most agricultural and horticultural uses for development. She noted that there is a very large group of activities that are not under the DEP rules, however they are not deemed exempt. Mr. Weingart asked whether they could be subject to the plan. Ms. Kaiser replied that was correct in that the Council can ask municipalities to include provisions in their ordinances. Mr. Salovaara said that he thought it involves the Right to Farm directly which states municipalities cannot impinge upon the right to farm at a state level. Ms. Kaiser replied that the Act also takes into account that the Council must promote the Right to Farm Act as part of the RMP. Mr. Balzano noted the intent of the standards was to encourage farming and to discourage alternate uses that would impair the farming uses. Ms. Kaiser noted the Council's primary goal was to limit the change from farmland to non-agricultural uses.

Ms. Letts asked if it was defined within Agricultural Resource Areas was 500 contiguous acres, but was it correct that lower gradations were noted to define a farm. Mr. Balzano said this was not intended to define a farm, but rather identify those farms that are part of important agricultural areas of the Highlands. Ms. Letts thought that the number was high. She noted there is a 5 acre farm in Parsippany and is considered a really valuable farm. Ms. Kaiser said this defines a resource area and not what a farm is. She noted that contiguousness is a major factor. Ms. Letts asked what will be included in the LUCM. Mr. Balzano said the LUCM is informed by the agricultural resource area, that portion of the Highlands that includes the farms that have the greatest resource significance, not all farms.

Ms. Kaiser said they are also agricultural land masses that are not separated by intervening non-agricultural development which is the area that is being designated. Mr. Dillingham asked if there was an overlay of the area. Mr. Balzano showed the Council a power point slide which showed all the agricultural farms. Mr. Alstede asked if the representation included woodland in between, and Mr. Balzano noted that was correct and there was a lot of overlap. Mr. Balzano noted that the portion of the Highlands region was defined as to include all those regionally significant farming areas as to size and prime soils. Mr. Salovaara asked if there were any farms over 500 acres that were not included because the soil wasn't prime. Mr. Balzano said that the selection process had a prime soils component and therefore lands without that component were not considered for the analysis. Ms. Kaiser noted there are over 300,000 acres of prime soils and unfortunately most of which are under development.

Mr. Salovaara asked where 500 acres came from, and Ms. Kaiser noted that it was from the 2002 U.S. Forest Service study. This was one factor used to determine conservation values for agriculture. She noted contiguousness is important in terms of preserving the farmland community and its productivity. Mr. Weingart suggested this would be language to be included in the rationale, as well as the definition of the Agricultural Resource Area.

Mr. Balzano noted that in the Midwest farmland was divided by one-mile square which is about 600 acres, since that was the amount that could be tilled and managed as an individual farm. Ms. Kaiser noted much of the explanation is contained on page eleven. Mr. Salovaara asked if 250 acres was not considered because it is not available, or was it considered and rejected. Mr. Balzano said the threshold for regional significance was set at 500 contiguous acres which was a good representative of the distribution.

Mr. Alstede said that you can have a small tract and be very successful and the Council should not exclude anyone under 500 contiguous acres. He noted the Council should consider having two tiers because much of the background for the 500 acre selection is based on what is occurring in the rest of the country which is much different than agriculture activity here. Mr. Alstede said for a grain operation or sizeable dairy operation, big contiguous tracts are very important. He also suggested that the more intensive fruit and vegetable production a very successful operation can be achieved on a much smaller tract. Mr. Alstede thought that having a lower standard could be considered because there are a lot of speckles outside the area that Mr. Balzano showed on the map which would be helpful.

Ms. Kaiser noted that the average farmland in the Highlands is only 55 acres, and statewide they are 81 acres. She said the land mass that forms all the farms is a factor the SADC uses when they are considering the proximity to other preserved farms. She noted it is a factor used in most preservation policies. Mr. Alstede noted this was one ranking criteria among many others. Mr. Weingart said it is desired to keep these lands in active farming use, as well as enhancing whatever resources such as SADC that are available to help support these farms.

Mr. Weingart also noted with regard to Mr. Alstede's comment that there are farms outside the 500 acre contiguous area that the Council may want to see supported. Ms. Kaiser noted that she did not believe any of the policies being recommended would be to their deficit. Mr. Balzano the policy would prioritize within the resource area.

Mr. Salovaara said that the resource assessment requires the Council to identify farmland and the Council should not ignore any 400 acre farm that happens to be by itself. Mr. Weingart asked that the Council move on to the next number. Mr. Balzano noted that the power point demonstration showed that the vast majority of existing agricultural uses are being captured.

Ms. Kaiser noted item number three addressed the standards recommended to be included into the Regional Conservation Zone of the LUCM. She noted that item number four addressed what Resource Protection Standards should be included in the land use protection area and establishes the resources protection standards. She read all the bullets listed under number four. Ms. Carluccio thought the most important provision under the standard was bullet number five and should be more forceful than the word encourage.

Ms. Kaiser noted that may be addressed later on page fourteen, under the paragraph on agroforestry. Mr. Alstede said that bullet one says prohibit land development or alteration, then under bullet ten it says encourage and noted that if the Council decides to state no other use than farming is allowed, it better be prepared. Mr. Balzano noted that Mr. Borden will need to follow up on this issue because as Mr. Salovaara mentioned, the language should not be considered as taking.

Mr. Dillingham said the Council needs to examine recent lawsuits regarding the regulation farmland and start determining what uses are allowed on it. He thought there will be a comparable argument on the lands in the map Mr. Balzano showed as to overlap. Mr. Salovaara said that he was concerned the Council is close to crossing the line and would like to know whether it was.

Ms. Kaiser noted that item number five addressed Smart Design Standards and that this section included the ordinances and standards.

Ms. Kaiser stated item number six addressed the Conformance Strategies which are recommended in furtherance of the goals and requirements of the Act to ensure successful implementation of the RMP during the conformance period, with the list of requirements for counties and municipalities with agricultural resources.

Ms. Kaiser noted that item number seven addressed the 5-year Resource Protection and Planning Goals being recommended to ensure continued refinement and development of the RMP including maintenance of an inventory of Active Highlands Region Farms.

Ms. Kaiser noted that item number eight addressed the Coordination and Consistency Considerations under three headings: 1) Department of Agriculture - State Agriculture Development Committee and Garden State Preservation Trust; 2) Federal Agency funding; and 3) Department of Agriculture.

Mr. Dillingham asked where the cross-over occurs with agricultural use and the resource management. Ms. Carluccio suggested the addition of a bullet point to coordinate with agencies to make sure their goals have a Best Management Practice in place which are consistent with the Council.

Mr. Dillingham said with regard to item number five, he requested that staff illustrate where cluster development in other parts of the country versus agricultural resources were on broad implications and provide justifications.

Mr. Weingart suggested that the Council stay on schedule with the 4:00 p.m. adjournment time, and said that the Council would continue with this document at its next meeting on September 28th, 2006 at 10:00 a.m.

ADJOURN:

Mr. Dillingham motioned to adjourn, Ms. Carluccio seconded, all were in favor, and the meeting ADJOURNED at 4:05 p.m.

Votes on the Approval of 9-21-06 Minutes (Yes, No, Abstain)

Councilmember Alstede	_____
Councilmember Calabrese	__Y__
Councilmember Carluccio	__Y__
Councilmember Dillingham	__Y__
Councilmember Kovach	__A__
Councilmember Letts	__Y__
Councilmember Pasquarelli	__Y__
Councilmember Peterson	__A__
Councilmember Salovaara	__Y__
Councilmember Schrier	__Y__
Councilmember Vetrano	_____
Councilmember Way	__A__
Councilmember Weingart	__Y__
Councilmember Whitenack	__Y__



John Weingart, Chairman

Policy Consideration: **Steep Slope Protection Requirements**
Status: **For Consideration by the Highlands Council at
the September 21, 2006 Work Session**
Date: **September 19, 2006**

I. STAFF POLICY RECOMMENDATIONS

- 1) Establish a **Steep Slope Area** as those lands that exhibit a grade of 15% or greater for inclusion in the RMP and Land Use Capability Map.

Rationale: Slope is a measurement of the steepness of terrain. Disturbance of steep slopes can aggravate erosion and sedimentation, resulting in the loss of topsoil, a valuable natural resource. It can also result in the degradation of water quality, alteration of drainage patterns, and the intensification of flooding. There is strong evidence in the scientific literature to suggest that slopes exceeding 15% are susceptible to an increased incidence of soil losses when disturbed.

The Highlands Act calls for a prohibition on development on steep slopes in the **Preservation Area** that have a grade of 20% or greater, and the implementation of standards for development on slopes in the Preservation Area exhibiting a grade between 10 and 20%. These standards are contained within the New Jersey Department of Environmental Protection (NJDEP) regulations applicable to the Preservation Area (N.J.A.C. 7:38-3.8). The Highlands Act also requires that the RMP identify areas that are significantly constrained by environmental limitations such as **steep slopes** (Section 11.6.c).

- 2) The following standards shall be incorporated into the **Regional Protection Zone** of the Land Use Capability Map (LUCM) in furtherance of the goals and requirements of the Highlands Act to protect and enhance Highlands resources:

- Include Steep Slope Areas with a grade of 15% or greater that are located in close proximity to a surface water feature

Rationale: The Highlands Act requires the development of a Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1) , 11.a.(6) and 12. The mapping of the Steep Slope Protection Area achieves the goal of the Act to identify areas that are significantly constrained by environmental limitations such as steep slopes, to ensure that the level of protection afforded to these critical areas is adequate and appropriate. The results are used as one input to the Land Use Capability Map. Applicable Resource Protection and Smart Design standards can then be assigned to the extent they are appropriate and necessary to maintain water quality and ecological integrity.

- 3) The following **Resource Protection Standards** are recommended for the RMP in furtherance of the goals and requirements of the Highlands Act to protect and enhance Highlands natural resources, including:
 - Discourage development activities and land uses in an area of Steep Slope.

- Require inclusion of the Steep Slope Protection Area within municipal zoning and land use ordinances.

Rationale: The RMP Standards support the necessity to determine the amount and type of human development and activity the Highlands Region can sustain while still maintaining the ecological value of the Highlands Region. Section 11.a.(1)(a). The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1) , 11.a.(6) and 12.

- 4) The following **Smart Design Standards** are recommended for the RMP in furtherance of the goals and requirements of the Highlands Act to encourage appropriate conservation based design throughout the region.

Include the following steep slope thresholds for design standards:

- **Severe Slope Constraints** – Those areas that include slope greater than 20% or greater than 10% if within a Riparian Area.
- **Moderately Severe Slope Constraints** - Those areas that include slope between 10-20% and are not within a Riparian Area but are forested, susceptible to erosion, proximate to a riparian area, and have shallow depth to bedrock or a Soil Capability Class indicative of wet or stony soils.
- **Moderate Slope Constraints** - Those areas that include slope between 10-20% and are not within or proximate to a Riparian Area and are non-forested, but are susceptible to erosion, and have shallow depth to bedrock or a Soil Capability Class indicative of wet or stony soils.
- **Low Slope Constraints** - Those areas that include slope between 10-20% and are not within or proximate to a Riparian Area, are non-forested, and are not susceptible to erosion, and do not have shallow depth to bedrock or a Soil Capability Class indicative of wet or stony soils.

Establish minimum design standards to minimize impacts to steep slopes based on the following minimum standards:

- Avoid disturbance of soils or vegetation within a **severe** or **moderately severe** slope.
- Minimize disturbance to a Moderate or Low slope using Low Impact Development (LID) Best Management Practices (BMPs) standards.

Rationale: Section 11 of the Highlands Act requires a Resource Assessment of Highlands resources in order to maintain the overall ecological values of the Highlands Region. The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1) , 11.a.(6) and 12. RMP standards are assigned based on the degree to which slope may impact or impair surface water quality to better inform the amount and type of human

development and activity the Highlands Region can sustain while still maintaining the ecological value of the Highlands Region. Section 11.a.(1)(a).

- 5) The following **Pre-Conformance Strategies** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure successful implementation of the RMP prior to the conformance period, including:

- Develop technical guidelines and procedures for development of Steep Slope Protection standards for inclusion in municipal zoning and land use ordinances.

Rationale: RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Highlands Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. Sections 11.a.(3), 14 and 15. The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region.

- 6) The following **Conformance Strategies** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure successful implementation of the RMP during the conformance period, including:

- Require that municipal conformance approval include the Steep Slope Protection Area and protection standards in conformance with the RMP.
- Require inclusion of Steep Slope Protection Area and standards into Municipal and/or County Master Plans, Zoning and Land Use Ordinances, as appropriate.

Rationale: RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. Sections 11.a.(3), 14 and 15. The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region.

- 7) The following **5-year Resource Protection and Planning Goals** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure continued refinement and development of the RMP, including:

- Identify steep slopes within the Highlands Region using refined topographic mapping.

Rationale: The Highlands Act requires the Highlands Council to periodically revise and update the RMP at least once every six years. Section 8.a. RMP Implementation Strategies support the necessity to determine what activities, data and programs will be

required of both the Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region. Sections 11.a.(3), 14 and 15.

- 8) The following **Coordination and Consistency Considerations** are recommended to promote active participation in the implementation of the RMP among state and federal agencies:

- Develop a coordinated regulatory review program with the NJDEP to ensure consistency of permit actions, open space acquisition priorities, surface water quality standards and restoration activities consistent with the resource protection goals of the RMP.
- Coordinate with the Natural Resource Conservation Service to develop standards for soil erosion and sediment control plans consistent with the resource protection goals of the RMP.

Rationale: RMP Implementation Strategies support the necessity to determine what local, State, and federal programs and policies may best be coordinated to promote the goals, purposes, policies, and provisions of the RMP. Sections 11.a.(4). The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region.

- 9) The following **Local Participation Considerations** are recommended to promote the understanding and support for the RMP resource protection goals at the local level:

- Develop educational program for municipal officials on methods to identify and protect steep slopes.

Rationale: RMP Implementation Strategies support the necessity to provide for the maximum feasible local government and public input into the Highlands Council's operations. Section 11.a.(3)(emphasis added). The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region.

II. REQUIREMENTS OF THE HIGHLANDS ACT AND RMP GOALS RELATED TO HIGHLANDS STEEP SLOPE PROTECTION REQUIREMENTS:

Goals of the Highlands Act:

In accordance with Section 10 of the Highlands Act, the overarching goal of the Regional

Master Plan “with respect to the entire Highlands Region shall be to protect and enhance the significant values of the resources thereof in a manner which is consistent with the purposes and provisions of this act.” Section 10.a.

The Highlands Act establishes specific goals relating to protection of Highlands steep slopes. Those goals with respect to the Preservation Area shall be to:

- protect, restore, and enhance the **quality and quantity of surface and ground waters.** Section 10.b.(1). (emphasis added).
- preserve **extensive and, to the maximum extent possible, contiguous areas of land in its natural state**, thereby ensuring the continuation of a Highlands environment which contains the **unique and significant natural**, scenic, and other resources representative of the Highlands Region. Section 10.b.(2). (emphasis added).
- protect the natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forests, wetlands, vegetated stream corridors, **steep slopes**, and critical habitat for fauna and flora. Section 10.b.(3). (emphasis added).
- prohibit or limit to the maximum extent possible construction or development which is **incompatible with preservation of this unique area.** Section 10.b.(9). (emphasis added).

In addition, the goals relating to protection of Highlands steep slopes with respect to the Planning Area shall be to:

- protect, restore, and enhance the **quality and quantity of surface and ground waters.** Section 10.c.(1). (emphasis added).
- preserve to the maximum extent possible any **environmentally sensitive lands** and other lands needed for recreation and **conservation purposes.** Section 10.c.(2). (emphasis added).
- protect and maintain the **essential character of the Highlands environment.** Section 10.c.(3). (emphasis added).

Requirements of the Highlands Act:

Resource Assessment

The Highlands Act requires the development of a Resource Assessment for the Highlands Region 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.” Section 11.a.(1)(a)(emphasis added).

Smart Growth Component

The Highlands Act also includes specific requirements relating to protection of open waters requiring the development of a Smart Growth component that includes “an assessment, based upon the resource assessment prepared pursuant to paragraph (1) of subsection a. of this section, of opportunities for appropriate development, redevelopment, and economic growth, and a transfer of development rights program.... In preparing this component, the council shall: (a) prepare a **land use capability map**;

- (b) identify **existing developed areas** capable of sustaining redevelopment activities and investment;
- (c) identify **undeveloped areas** in the planning area, which are **not significantly constrained by environmental limitations** such as **steep slopes**, wetlands, or dense forests, are not prime agricultural areas, and are located near or adjacent to existing development and infrastructure, that could be developed; . . .
- (g) identify **special critical environmental areas and other critical natural resource lands** where development should be limited. Section 11.a.(6)”(emphasis added).

Preservation Area Assessment

For the Preservation Area, Section 12 of the Highlands Act requires “a **land use capability map** and a comprehensive statement of policies for planning and managing the development and use of land in the preservation area, which shall be based upon, comply with, and implement the **environmental standards**” **adopted by NJDEP** and the **Resource Assessment prepared the Highlands Council** under Section 11. Section 12.(emphasis added).

Section 12 specifically requires implementation “that will ensure the continued, uniform, and consistent protection of the Highlands Region in accordance with the goals, purposes, policies, and provisions of this act, and shall include:

- a. a preservation zone element that **identifies zones within 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 land acquisition and the transfer of development rights; and
- b. minimum standards governing municipal and county master planning, development regulations, and other regulations concerning the development and use of land in the preservation area, including, but not limited to, standards for minimum lot sizes and stream setbacks, **construction on steep slopes**, maximum appropriate population densities, and **regulated or prohibited uses** for specific portions of the preservation area. Section 12. (emphasis added).

Preservation Area Requirements

The NJDEP’s rules at N.J.A.C. 7:38-3.8 rules implement Section 34.j. which requires “a prohibition on development, except linear development for infrastructure, utilities, and the rights-of-way therefor, provided that no other feasible alternative, as determined by the department, exists for the linear development, on steep slopes in the preservation area with a grade of 20% or greater, and standards for development on slopes in the preservation area exhibiting a grade of between 10% and 20%. The standards shall assure that developments on slopes exhibiting a grade of between 10% and 20% preserve and protect steep slopes from the negative consequences of development on the site and the cumulative impact in the Highlands Region. The standards shall be developed to prevent soil erosion and sedimentation, protect water quality, prevent stormwater runoff, protect threatened and endangered animal and plant species sites and designated habitats, provide for minimal practicable degradation of unique or irreplaceable land types, historical or archeological areas, and existing scenic attributes at the site and within the surrounding area, protect upland forest, and restrict impervious surface; and shall take into consideration differing soil types, soil erodability, topography, hydrology, geology, and vegetation types.”

Local Participation Component

A component to provide for the maximum feasible local government and public input into the council's operations, which shall include a framework for developing policies for the planning area in conjunction with those local government units in the planning area who choose to conform to the regional master plan. Section 11.a.(3).

Coordination and Consistency Component

A coordination and consistency component which details the ways in which local, State, and federal programs and policies may best be coordinated to promote the goals, purposes, policies, and provisions of the regional master plan, and which details how land, water, and structures managed by governmental or nongovernmental entities in the public interest within the Highlands Region may be integrated into the regional master plan. Section 11.a.(4).

III. TECHNICAL BASIS AND JUSTIFICATION FOR STAFF RECOMMENDATIONS

In furtherance of the requirements and goals of the Highlands Act as summarized above, the Highlands Steep Slope Protection Requirements of the Ecosystem Management Element of the RMP are intended to protect the natural, scenic, and other resources of the Highlands Region, including but not limited to steep slopes.

The Ecosystem Management program element is intended to identify natural and ecological resources in need of protection for inclusion in the Land Use Capability Map and RMP implementation policies. It also evaluates the effects of land development and other stresses on those resources, and establishes the overall strategies and policies necessary to protect, enhance and restore, where appropriate, their value.

It is critical to protect steep slopes as their disturbance can aggravate erosion and sedimentation, resulting in the loss of topsoil, a valuable natural resource. It can also result in the disturbance of habitats, degradation of surface water quality, silting of wetlands, alteration of drainage patterns, obstruction of drainage structures, and the intensification of flooding. These processes, when severe, can also result in land slumping and landslides that can damage both developed property and ecosystems. The identification and classification of steep slopes is of great importance in order to effectively manage critical natural resources in the Highlands.

The RMP includes an inventory of steep slopes within the Highlands Region and establishes the extent of Steep Slope Protection Area needed to maintain existing uses, avoid further impairment of open waters and allow for opportunities to restore ecological integrity where appropriate. The extent of the Steep Slope Protection Area informs development of the RMP and Land Use Capability Map.

The approach is based on the best available science and the results of the Resource Assessment performed in support of the RMP, and reinforced through the scientific literature and existing state or federal regulatory programs, where applicable. In addition, as required by Section 12 of the Highlands Act for the Preservation Area, the approach is based upon, comply with, and implement the environmental standards adopted by NJDEP and the Resource Assessment performed by the Highlands Council. This requirement of the Highlands Act authorizes the Highlands Council to integrate results of these two elements of the Act into a unified approach for the protection of Highlands resources.

IV. GLOSSARY

This section defines the terms that are used to develop the approach and methods that informed the proposed policy actions for this RMP element. Topic specific glossaries will contribute to the general RMP glossary of terms.

Low Impact Development (LID) Best Management Practices (BMPs) – Low Impact Development is an environmentally sensitive approach to storm water management that emphasizes conservation and the use of existing natural site features integrated with distributed, small scale storm water controls to more closely mimic natural hydrologic patterns in residential, commercial and industrial settings. LID best management practices involve comprehensive land planning and engineering design to maintain and enhance the hydrologic regime of urban lands and development within watersheds. LID standards and best management practices are supported by the New Jersey Stormwater Management Rules, N.J.A.C. 7:8 and the “New Jersey Stormwater Best Management Practices Manual” developed by the New Jersey Department of Environmental Protection, in coordination with the New Jersey Department of Agriculture, the New Jersey Department of Community Affairs, the New Jersey Department of Transportation, municipal engineers, county engineers, consulting firms, contractors, and environmental organizations.

Slope - Slope is a measurement of the steepness of terrain. It is the ratio of vertical rise to horizontal distance expressed as a percentage.

Soil Erodibility (K) - the inherent susceptibility of soil particles or aggregates to become detached or transported by erosive agents such as rainfall, runoff, or wind.

Percent Slope - Percent slope of the terrain is the ratio of vertical rise to horizontal distance expressed as a percentage. Slopes of concern are those that exceed 10%, with additional thresholds of 15% and 20%.

Soil Erodibility - Soil erodibility (K) is the inherent susceptibility of soil particles or aggregates to become detached or transported by erosive agents such as rainfall, runoff, or wind. K values are expressed as decimal points and the units are called “erodibility units.”

Soil Capability Class - The NRCS SSURGO data set includes a soil capability class and subclass ranking system. Soil capability classes and subclasses shall be mapped using the County Soil Surveys to identify those areas with steep slopes, where soils are classified as Class IIe, IIs, or higher.

Policy Consideration: **Prime Ground Water Recharge Area Protection Requirements**
Status: **For Consideration by the Highlands Council at**
the September 21, 2006 Work Session
Date: **September 19, 2006**

I. STAFF POLICY RECOMMENDATIONS

1) **Prime Ground Water Recharge Areas** will be included in the Land Use Capability Map (LUCM) of the Regional Master Plan (RMP) to help protect the potable water supply, surface and ground water quantity and quality and ecological resource values.

Rationale: The Highlands Act includes a regional goal to protect, restore, and enhance the quality and quantity of the surface water and ground waters of the Highlands Region. Sections 10.b.(1) and 10.c.(1). Ground water recharge is the process by which water infiltrates into the ground and is added to the water table from precipitation. It is the primary source of water replenishment to both aquifers (defined as ground water able to be used economically as a source of drinking water) and non-aquifer ground water. The determination of the relative ground water recharge of land areas across the Highlands and understanding of where the most productive recharge areas are located allows for improved management and protection of ground water quality and quantity in support of a sustainable water supply, as well as overall water and ecological resource protection.

2) **Prime Ground Water Recharge Areas** shall include those lands within a HUC 14 subwatershed which provide 40 percent ground water recharge, relative to other land areas, during drought conditions.

Rationale: Section 11 of the Highlands Act requires a Resource Assessment in order to maintain the overall ecological values of the Highlands Region with special reference to surface and ground water quality and supply. To address this requirement, the relative productivity of ground water recharge areas has been evaluated for each HUC14 subwatershed. Ground Water Recharge Areas were evaluated using the New Jersey Geological Survey (NJGS) method, GSR-32, to differentiate relative recharge rates. This is an appropriate and established method to estimate the rate of ground water recharge and evaluate the effect of present and future land uses on ground water recharge.

3) The following standards shall be incorporated into the **Regional Protection Zone** of the Land Use Capability Map (LUCM) in furtherance of the goals and requirements of the Highlands Act to protect and enhance Highlands resources, as follows:

- Include Prime Ground Water Recharge Areas to the maximum extent practicable, given other LUCM considerations.
- Discourage land uses within Prime Ground Water Recharge Areas, except within a **Specially Planned Area**, as determined by the Highlands Council, and only upon demonstration that any relief from protection requirements will not impair or reduce ground water recharge quality, rates or volumes.
- Where development is allowed that infringes into a mapped Prime Ground Water Recharge Area within a **Specially Planned Area**, Low Impact Development or

other best management practices (BMPs) and compensation or mitigation must be provided through restoration of impaired Prime Ground Water Recharge Areas in the same subwatershed or by other means, as determined by the Highlands Council.

Rationale: The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1) , 11.a.(6) and 12. An evaluation of the relative rate of recharge in a Prime Ground Water Recharge Area within a subwatershed facilitates an assessment of its regional significance to ensure that the level of protection afforded is adequate and appropriate. The integrity of Highlands Prime Ground Water Recharge Areas supports the goals of the Act with consideration of the impacts of the dominant land use (e.g., open space, agriculture, and low or higher density development) within each HUC14. Applicable Resource Protection and Smart Design standards can then be applied based on regional indicators of recharge area productivity to the extent they are appropriate and necessary to support a sustainable potable water supply, as well as surface water, ground water and ecological resource values.

- 4) The following standards shall be incorporated into the **Regional Conservation Zone** of the Land Use Capability Map in furtherance of the goals and requirements of the Highlands Act to provide a conservation-based approach for agricultural areas, rural areas and suburban areas, as follows:
- Include Prime Ground Water Recharge Areas to the maximum extent practicable, given other LUCM considerations.
 - Allow for adjustments and revisions to Prime Ground Water Recharge Area protection requirements, such as increases in impervious cover or loss of forest or other natural land cover within a Specially Planned Area, as determined by the Highlands Council, upon demonstration that there is no net loss in rate or volume and no degradation of quality to ground water recharge. This can be achieved through site planning, Low Impact Development (LID) or other BMPs, compensation or mitigation within the same subwatershed or by other means, as determined by the Highlands Council.

Rationale: The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1), 11.a.(6) and 12. An evaluation of the relative rate of recharge in a Prime Ground Water Recharge Area within a subwatershed facilitates an assessment of its regional significance to ensure that the level of protection afforded is adequate and appropriate. The integrity of Highlands Prime Ground Water Recharge Areas supports the goals of the Act with consideration of the impacts of the dominant land use (e.g., open space, agriculture, and low or higher density development) within each HUC14. Applicable Resource Protection and Smart Design standards can then be applied based on regional indicators of recharge area productivity to the extent they are appropriate and necessary to support a sustainable potable water supply, as well as surface water, ground water and ecological resource values.

- 5) The following standards shall be incorporated into the **Regional Development Zone** of the Land Use Capability Map in furtherance of the goals and requirements of the Highlands Act within areas of existing developed land that may serve to support additional development,

redevelopment and voluntary TDR Receiving Zones based on infrastructure and land use conditions and local desire, as follows:

- Require that any development activity demonstrate no net loss of quantity within the same subwatershed or degradation in quality to ground water recharge.

Rationale: The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1), 11.a.(6) and 12. An evaluation of the relative rate of recharge in a Prime Ground Water Recharge Area within a subwatershed facilitates an assessment of its regional significance to ensure that the level of protection afforded is adequate and appropriate. The integrity of Highlands Prime Ground Water Recharge Areas supports the goals of the Act with consideration of the impacts of the dominant land use (e.g., open space, agriculture, and low or higher density development) within each HUC 14. Applicable Resource Protection and Smart Design standards can then be applied based on regional indicators of recharge area productivity to the extent they are appropriate and necessary to support a sustainable potable water supply, as well as surface water, ground water and ecological resource values.

- 6) The following **Resource Protection Standards** are recommended for the RMP in furtherance of the goals and requirements of the Highlands Act to protect and enhance Highlands resources, including:

- Restrict development activities and new land uses within Prime Ground Water Recharge Areas,
- Require inclusion of Prime Ground Water Recharge Area protection standards within municipal zoning and land use ordinances, and
- Establish minimum standards for development and approval of LID and other appropriate BMPs within a Prime Ground Water Recharge Area.

Rationale: RMP standards are assigned based on regional indicators of Highlands recharge area productivity. The RMP Standards support the necessity to determine the amount and type of human development and activity the Highlands Region can sustain while still maintaining the ecological value of the Highlands Region. Section 11.a.(1)(a). The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1), 11.a.(6) and 12.

- 7) The following **Smart Design Standards** are recommended for the RMP in furtherance of the goals and requirements of the Highlands Act to encourage appropriate conservation-based design throughout the region, including:

- Establish minimum site design guidelines and permissible uses within a Prime Ground Water Recharge Area as follows:
 - a) No increase in pre-existing impervious area shall be permitted unless it is demonstrated that there is no net loss to ground water recharge rates and

volumes or degradation in water quality. Increases in pre-existing impervious area shall be permitted upon demonstration of no discernible harm or approval of an applicable management plan and LID or other BMP program to be approved by the Highlands Council. Restoration of impaired areas shall be encouraged wherever practical.

- b) Activities within a Prime Ground Water Recharge Area shall encourage redevelopment of previously developed areas and allow for other compatible uses that do not impair recharge area productivity or water quality.
- c) Require use of LID or other BMPs to protect, enhance and restore Prime Ground Water Recharge Areas as a mandatory requirement for any site plan application. These BMPs would seek to maximize ground water recharge through site design standards including but limited to infiltration basins and open stormwater conveyance channels.

Rationale: RMP standards are assigned based on regional indicators of Highlands recharge productivity. The RMP Standards support the necessity to determine the amount and type of human development and activity the Highlands Region can sustain while still maintaining the water resource and ecological values of the Highlands Region. Section 11.a.(1)(a). The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1), 11.a.(6) and 12.

- 8) The following **Regional Growth Standards** are recommended for the RMP in furtherance of the goals and requirements of the Highlands Act to encourage appropriate economic development opportunity throughout the Highlands Region, including:
 - Require development of regional stormwater and wetland management and mitigation plans to promote regional restoration and enhancement of ground water recharge, subject to review and approval of Highlands Council.
 - Require participation in regional stormwater and wetland management and mitigation programs, where applicable, as a mandatory requirement for any site plan application.

Rationale: RMP standards are assigned based on regional indicators of Highlands recharge area productivity. The RMP Standards support the necessity to determine the amount and type of human development and activity the Highlands Region can sustain while still maintaining the ecological value of the Highlands Region. Section 11.a.(1)(a). The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1), 11.a.(6) and 12.

- 9) The following **Pre-Conformance Strategies** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure successful implementation of the RMP prior to the conformance period, including:

- Develop technical guidelines and procedures for LID and other BMPs to protect and restore Prime Ground Water Recharge Areas.

Rationale: RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Highlands Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. Sections 11.a.(3), 14 and 15. The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, county and local support from all levels of government and the support of the stakeholders of the Highlands Region.

- 10) The following **Conformance Strategies** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure successful implementation of the RMP during the conformance period, including:

- Require inclusion of Prime Ground Water Recharge Areas in municipal and/or county conformance documents, master plans, zoning and land use ordinances, as appropriate.

Rationale: RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County and local support from all levels of government and the support of the stakeholders of the Highlands Region. Sections 11.a.(3), 14 and 15.

- 11) The following **5-year Resource Protection and Planning Goals** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure continued refinement and development of the RMP, including:

- Coordinate programs, funding and activities among public and private entities to encourage regional ground water recharge protection and restoration activities consistent with the RMP.
- Develop technical guidelines and procedures for development of municipal Prime Ground Water Recharge Area LID and other BMPs, and other methods of protecting ground water recharge quantity and quality as appropriate.

Rationale: The Highlands Act requires the Highlands Council to periodically revise and update the RMP at least once every six years. Section 8.a. RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. The RMP is a “living document” and will continue to be refined and developed in support of regional

planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County and local support from all levels of government and the support of the stakeholders of the Highlands Region. Sections 11.a.(3), 14 and 15.

- 12) The following **Coordination and Consistency Considerations** are recommended to promote active participation in the implementation of the RMP among state and federal agencies:

- Develop a coordinated regulatory review program with the NJDEP and other state agencies, as appropriate to ensure consistency of permit actions, open space acquisition priorities, restoration and other activities consistent with the resource protection goals of the RMP. Investigate additional State agency program opportunities (e.g., Environmental Infrastructure Trust, Forest and Water Quality Management Planning, water supply, transportation) to leverage existing programs, research and funding in support of ground water recharge protection as part of RMP implementation.
- Coordinate with the USDA Natural Resource Conservation Service to promote Prime Ground Water Recharge Area resource protection requirements and standards in Resource Management and Conservation Plans for existing agricultural uses to the maximum extent practical. Investigate additional federal agency program opportunities (e.g., US Geological Survey water science research, US Environmental Protection Agency regulatory and remedial programs, US Army Corps of Engineers wetland restoration) to leverage existing programs, research and funding in support of ground water recharge protection as part of RMP implementation.

Rationale: RMP Implementation Strategies support the necessity to determine what local, State and federal programs and policies may best be coordinated to promote the goals, purposes, policies, and provisions of the RMP. Sections 11.a.(4). The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, county and local support from all levels of government and the support of the stakeholders of the Highlands Region.

- 13) The following **Local Participation Considerations** are recommended to promote the understanding and support for the RMP resource protection goals at the local level:

- Develop or utilize existing educational and technical training programs for municipal officials, interested watershed organizations and others to promote understanding of the importance of and consistent standards for the protection, restoration and acquisition of Prime Ground Water Recharge Areas of the Highlands Region.
- Develop or utilize existing educational and technical training program for municipal officials on Prime Ground Water Recharge Area protection measures, including LID and other BMPs, to minimize impacts to Prime Ground Water Recharge Areas through the use of municipal planning, zoning and other regulatory authority.

Rationale: RMP Implementation Strategies support the necessity to provide for the maximum feasible local government and public input into the Highlands Council's operations. Section 11.a.(3). The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, county and local support from all levels of government and the support of the stakeholders of the Highlands Region.

II. REQUIREMENTS OF THE HIGHLANDS ACT AND RMP GOALS RELATED TO PRIME GROUND WATER RECHARGE AREA PROTECTION:

Findings of the Highlands Act:

The Highlands Act includes specific legislative findings relating to the protection of water supplies:

“The Legislature further finds and declares that in the New Jersey Highlands there is a mountain ridge running southwest from Hamburg Mountain in Sussex County that separates the eastern and the western New Jersey Highlands; that much of the State's drinking water supplies originate in the eastern New Jersey Highlands; and that planning for the region and the environmental standards and regulations to **protect those water supplies should be developed with regard to the differences in the topography** of the Highlands Region and how the topography affects the quality of the water supplies.” Section 2. (emphasis added).

Goals of the Highlands Act:

In accordance with Section 10 of the Highlands Act, the overarching goal of the Regional Master Plan “with respect to the entire Highlands Region shall be to protect and enhance the significant values of the resources thereof in a manner which is consistent with the purposes and provisions of this act.” Section 10.a.

Those goals relating to the protection of ground water recharge areas with respect to the Preservation Area shall be to:

- protect, restore, and enhance the **quality and quantity of surface and ground waters.** Section 10.b.(1). (emphasis added).
- preserve extensive and, to the maximum extent possible, contiguous areas of land in its natural state, thereby ensuring the continuation of a Highlands environment which contains the **unique and significant natural, scenic, and other resources representative of the Highlands Region.** Section 10.b.(2). (emphasis added).
- protect the natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forests, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora. Section 10.b.(3).
- promote **conservation of water resources.** Section 10.b.(6). (emphasis added).
- prohibit or limit to the maximum extent possible construction or development which is **incompatible with preservation of this unique area.** Section 10.b.(9). (emphasis added).

In addition, the goals relating to the protection of ground water recharge areas with respect to the Planning Area shall be to:

- protect, restore, and enhance the **quality and quantity of surface and ground waters**. Section 10.c.(1). (emphasis added).
- preserve to the maximum extent possible any environmentally sensitive lands and other lands needed for recreation and **conservation purposes**. Section 10.c.(2). (emphasis added).
- protect and maintain the **essential character of the Highlands environment**. Section 10.c.(3). (emphasis added).
- promote **conservation of water resources**. Section 10.c.(7). (emphasis added).

Requirements of the Highlands Act:

Resource Assessment

The Highlands Act includes specific requirements relating to protection of ground water recharge areas requiring the development of a Resource Assessment for the Highlands Region 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.**” Section 11.a.(1)(a)(emphasis added).

Smart Growth Component

The Highlands Act also includes specific requirements relating to protection of ground water recharge areas requiring the development of a Smart Growth component that includes “an assessment, based upon the resource assessment prepared pursuant to paragraph (1) of subsection a. of this section, of opportunities for appropriate development, redevelopment, and economic growth, and a transfer of development rights program In preparing this component, the council shall:

- (a) prepare a **land use capability map**;
- (b) identify **existing developed areas** capable of sustaining redevelopment activities and investment;
- (c) identify **undeveloped areas** in the planning area, which are **not significantly constrained by environmental limitations** such as steep slopes, wetlands, or dense forests, are not prime agricultural areas, and are located near or adjacent to existing development and infrastructure, that could be developed;
- (g) identify **special critical environmental areas and other critical natural resource lands** where development should be limited. Section 11.a.(6)(emphasis added).

Preservation Area Assessment

For the Preservation Area, Section 12 of the Highlands Act requires “a **land use capability map** and a comprehensive statement of policies for planning and managing the development and use of land in the preservation area, which shall be based upon, comply with, and implement the **environmental standards**” adopted by NJDEP and the **Resource Assessment prepared the Highlands Council** under Section 11. Section 12.(emphasis added).

Section 12 specifically requires implementation “that will ensure the continued, uniform, and consistent protection of the Highlands Region in accordance with the goals, purposes, policies, and provisions of this act, and shall include:

- a. a preservation zone element that **identifies zones within 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 land acquisition and the transfer of development rights; and
- b. minimum standards governing municipal and county master planning, development regulations, and other regulations concerning the development and use of land in the preservation area, including, but not limited to, standards for minimum lot sizes and stream setbacks, construction on steep slopes, maximum appropriate population densities, and **regulated or prohibited uses** for specific portions of the preservation area. Section 12. (emphasis added).

Preservation Area Requirements

The NJDEP’s rules at N.J.A.C. 7:38-3.5(a) prohibits development or activity if it will result in impervious surface of greater than three percent of the land area of a lot. This rule implements the “prohibition on impervious surfaces of greater than three percent of the land area” in the Preservation Area pursuant to Section 34.h.

Section 34.b. requires “measures to ensure that existing water quality shall be maintained, restored, or enhanced, as required pursuant to the "Water Pollution Control Act," P.L.1977, c. 74 (C.58:10A-1 et seq.) or the "Water Quality Planning Act," P.L.1977, c. 75 (C.58:11A-1 et seq.), or any rule or regulation adopted pursuant thereto, in all Highlands open waters and waters of the Highlands.”

The NJDEP’s rules at N.J.A.C. 7:38-3.2 includes standards for water supply diversions in order to implement the provisions in Section 34.d. to consider “individual and cumulative impacts of multiple diversions, maintenance of stream base flows, minimization of depletive use, maintenance of existing water quality, and protection of ecological uses.” New or increased diversions “for non-potable purposes that is more than 50% consumptive shall require an equivalent reduction in water demand within the same subdrainage area through such means as groundwater recharge of stormwater or reuse.” Section 34.d.

The NJDEP’s rules at N.J.A.C. 7:38-3.4 includes septic density requirements in order to implement the provisions in Section 34.e “to prevent the degradation of water quality, or to require the restoration of water quality, and to protect ecological uses from individual, secondary, and cumulative impacts, in consideration of deep aquifer recharge available for dilution.”

In addition, Section 36 of the Highlands Act requires that NJDEP’s permitting review approval without a waiver may be issued only upon a finding that the proposed major Highlands development:

- (1) would have a **de minimis impact on water resources** and would not cause or contribute to a significant degradation of surface or ground waters. In making this determination, the commissioner shall consider the extent of any impacts on water resources resulting from the proposed major Highlands development, including, but not limited to, the **regenerative capacity of aquifers or other surface or ground water supplies**, increases in stormwater

generated, increases in impervious surface, increases in stormwater pollutant loading, changes in land use, and changes in vegetative cover;

(2) would cause **minimal feasible interference with the natural functioning of animal, plant, and other natural resources** at the site and within the surrounding area, and **minimal feasible individual and cumulative adverse impacts to the environment** both onsite and offsite of the major Highlands development;

(3) will result in **minimum feasible alteration or impairment of the aquatic ecosystem** including existing contour, vegetation, fish and wildlife resources, and aquatic circulation of a freshwater wetland;

(4) will not jeopardize the continued existence of species listed pursuant to "The Endangered and Nongame Species Conservation Act," P.L.1973, c. 309 (C.23:2A-1 et seq.) or the "Endangered Plant Species List Act," P.L.1989, c. 56 (C.13:1B-15.151 et seq.), or which appear on the federal endangered or threatened species list, and will not result in the likelihood of the destruction or adverse modification of habitat for any rare, threatened, or endangered species of animal or plant;

(5) is located or constructed so as to neither endanger human life or property nor otherwise **impair the public health, safety, and welfare**;

(6) would result in minimal practicable degradation of unique or irreplaceable land types, historical or archeological areas, and existing public scenic attributes at the site and within the surrounding area; and

(7) meets all other applicable department standards, rules, and regulations and State laws." Section 36 (emphasis added)

Local Participation Component

A component to provide for the maximum feasible local government and public input into the council's operations, which shall include a framework for developing policies for the planning area in conjunction with those local government units in the planning area who choose to conform to the regional master plan. Section 11.a.(3).

Coordination and Consistency Component

A coordination and consistency component which details the ways in which local, State, and federal programs and policies may best be coordinated to promote the goals, purposes, policies, and provisions of the regional master plan, and which details how land, water, and structures managed by governmental or nongovernmental entities in the public interest within the Highlands Region may be integrated into the regional master plan. Section 11.a.(4).

III. TECHNICAL BASIS AND JUSTIFICATION FOR STAFF RECOMMENDATIONS

In furtherance of the requirements and goals of the Highlands Act, the Prime Ground Water Recharge Area Protection Requirements of the Water Resources element of the RMP are intended to protect, restore and enhance surface and ground waters. The Water Resources program element is intended to identify water resources in need of protection for inclusion in the Land Use Capability Map and RMP implementation policies. It also evaluates the effects of land development and other stressors on those resources, and establishes the overall strategies and policies necessary to protect, enhance and restore their value.

Ground water resources are critical in that they provide base flow to streams that support aquatic ecosystems and surface water supplies, as well as help to maintain and replenish ground water

resources that serve as a direct source of drinking water. The scientific literature documents the ecological and hydrologic importance of ground water recharge areas in sustaining the resource. Existing regulatory and resource management programs (e.g., Source Water Protection) are not sufficient to safeguard these critical natural areas. In order to adequately protect, restore and enhance surface and ground waters of the Highlands, the RMP includes protection of Prime Ground Water Recharge Areas.

The New Jersey Geological Survey (NJGS) developed the GSR-32 method for ground water recharge mapping. It is an appropriate method to differentiate recharge rates among land areas within subwatersheds. It can be used to determine which land areas are “prime” ground water recharge areas on a relative basis. Based on this analysis, the Highlands Council has defined “Prime Ground Water Recharge Areas” as those areas that most efficiently provide 40 percent or more of the total recharge volume for each HUC14 subwatershed, based on 2002 land use condition and using available drought recharge volume data.

The purpose of this element is to recommend protection requirements of the Highlands Prime Ground Water Recharge Area for inclusion in the RMP based on the following actions in furtherance of the requirements and goals of the Act:

- Identify and map the location and extent of the Prime Ground Water Recharge Areas for the Highlands Region,
- Evaluate the condition and productivity of the Prime Ground Water Recharge Areas on a subwatershed basis by identifying areas where the existing land uses may have impaired the ability of the Prime Ground Water Recharge Area to sustain potable water supply, surface and ground water and ecological resource values,
- Utilize the extent and condition of the Prime Ground Water Recharge Areas to inform resource protection needs and land use standards that will safeguard the quantity and quality of ground water recharge that supports a sustainable potable water supply, and protects surface water, ground water and ecological resources, and
- Identify appropriate management strategies that can help restore or enhance Prime Ground Water Recharge Areas.

These approaches are based on the best available science and the results of the Resource Assessment performed in support of the RMP, and are reinforced by scientific literature and existing state or federal regulatory programs, where applicable. In addition, as required by Section 12 of the Highlands Act for the Preservation Area, these approaches are based upon, comply with and implement the environmental standards adopted by NJDEP and the Resource Assessment performed by the Highlands Council. This requirement of the Highlands Act charges the Highlands Council with integrating the results of these two elements of the Act into a unified approach for the protection of Highlands resources.

The RMP includes a relative assessment of the ability of lands within the Highlands Region to recharge ground water and establishes the extent of protection needed to maintain source waters for potable water supply and support aquatic-based ecosystems, avoid further impairment of ground water and surface water quantity and quality and allow for opportunities to restore or

enhance recharge productivity where appropriate. The location, extent and condition of the Prime Ground Water Recharge Areas inform development of the RMP.

The Highlands Council worked in cooperation with the New Jersey Water Supply Authority to develop appropriate methods to assess the Prime Ground Water Recharge Areas in the Highlands Region. A technical memorandum titled Ground Water Recharge Areas discussed the methods and analytical results of the analysis being incorporated into the RMP.

IV. GLOSSARY

This section defines the terms that are used to develop the approach and methods that informed the proposed policy actions for this RMP element. Topic-specific glossaries will contribute to the general RMP glossary of terms.

GSR-32 - The New Jersey Geological Survey method for ground water recharge mapping (GSR-32) that differentiates recharge rates among land areas within single watersheds or subwatersheds. It can be used to determine which land areas can be considered “prime” ground water recharge areas on a relative basis.

Hydrologic Unit Code – Hydrologic Unit Code (HUC) means an area within which water drains to a particular receiving surface-water body, which is identified by a specific digit number, or “hydrologic unit code.” The HUC codes were developed by the U.S. Geological Survey. *N.J.A.C. 7:38-1.4.*

HUC14 - An area within which water drains to a particular receiving surface-water body, which is identified by a fourteen-digit number, or “hydrologic unit code.” In New Jersey, a HUC14 correlates to a subwatershed. *N.J.A.C. 7:38-1.4.*

Impervious surface – Any structure, surface, or improvement that reduces or prevents absorption of stormwater into land, and includes porous paving, paver blocks, gravel, crushed stone, decks, patios, elevated structures, and other similar structures, surfaces, or improvements. *Section 3.*

Low Impact Development (LID) Best Management Practices – Low Impact Development is an environmentally sensitive approach to storm water management that emphasizes conservation and the use of existing natural site features integrated with distributed, small scale storm water controls to more closely mimic natural hydrologic patterns in residential, commercial and industrial settings. LID best management practices involve comprehensive land planning and engineering design to maintain and enhance the hydrologic regime of urban lands and development within watersheds. LID standards and best management practices are supported by the New Jersey Stormwater Management Rules, N.J.A.C. 7:8 and the “New Jersey Stormwater Best Management Practices Manual” developed by the New Jersey Department of Environmental Protection, in coordination with the New Jersey Department of Agriculture, the New Jersey Department of Community Affairs, the New Jersey Department of Transportation, municipal engineers, county engineers, consulting firms, contractors, and environmental organizations.

Prime Ground Water Recharge Area - Those areas that most efficiently provide 40 percent or more of the total recharge volume for each HUC14 subwatershed, using the GSR-32 method, incorporating 2002 land use/land cover data and drought water data.

Specially Planned Area - Previously developed lands that provide opportunities for redevelopment, including infill and adaptive reuse, based on limited resource constraints due to past development patterns. Within the Preservation Area a Specially Planned Area is limited to an area or site that contains at least 70% impervious area or is a Brownfield site determined to be Specially Planned Area by the Highlands Council and NJDEP.

Stormwater and Wetland Regional Management and Mitigation Plan - A planning document developed at a municipal or county level that identifies areas appropriate for improvement as a regional stormwater or wetland mitigation site(s) including strategies for its implementation at the local or regional level.

Policy Consideration: **Forest Integrity Protection Requirements**
Status: **For Consideration by the Highlands Council at
the September 21, 2006 Work Session**
Date: **September 19, 2006**

I. STAFF POLICY RECOMMENDATIONS

- 1) The Regional Master Plan (RMP) shall provide for the protection of Forest Resources in the Highlands Region, and their protection areas shall be incorporated into the Land Use Capability Map.

Rationale: **Forests** will be included in the RMP to provide essential ecosystem functions, including surface water and air filtration, carbon sequestration, groundwater recharge, and provide habitat to a wide range of animal and plant species. Forests are the original and existing primary land cover of the Highlands. Highlands forests are the dominant land cover of the region (approximately 464,200 acres of forest or 54% of the total of land area. Highlands forests function as surface water filtration systems, protecting the integrity of vital water supplies for the Highlands Region. The positive correlation between forest cover and surface water quality is well documented in scientific literature. Larger forest tracts forming the core of the Highlands protect natural communities by reducing anthropogenic effects and protecting area-sensitive wildlife species. The Highlands Act includes specific goals to protect the natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forests, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora (Section 10.b.3). Section 11 of the Highlands Act requires a Resource Assessment of Highlands resources in order to maintaining the overall ecological values of the Highlands Region.

- 2) Establish the **Forest Ecological Integrity** in the Land Use Capability Map to protect important contiguous forest resource that should be maintained in a **Forest Resource Area** to protect ecological integrity according to the following forest integrity indicators: Total Forest Area, Core Area, Forest Patch Size, Proportion of Total Forest and Distance to Nearest Forest Patch.

Rationale: Forest ecological integrity includes landscape metrics applied on a forest patch basis to identify those forests that include criteria most suited to support ecological processes. A Forest Resource Area includes high ecological integrity forest areas including those forested areas that express one or more of the following forest integrity indicators – a contiguous forest patch of equal to or greater than 500 acres in size, an area consisting of 250+ acres of Core forest greater than 300 feet from an altered edge, or areas that account for 45% or greater of mean total forest cover. The Highlands Act includes specific goals to protect the natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forests, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora (Section 10.b.3). The evaluation of forest ecological integrity, as a measure of fragmentation, provides guidance for where contiguous forests are located in the Highlands Region.

- 3) Assign **Forest Watershed Integrity** classifications for each HUC14 subwatershed based on the forest watershed integrity indicators.

The following values classes, relating to the importance of forest areas for water quality protection, will be included in the RMP:

- **High Integrity Forest Area** – Those forested areas within each subwatershed that are predominantly forested, include a high proportion of forest cover consisting of high core area, large patch size, and a low distance to nearest patch.
- **Moderate Integrity Forest Area** – Those forested areas within each subwatershed that are predominantly forested, include a moderate proportion of forest cover consisting of moderate core area and patch size.
- **Low Integrity Forest Area** – Those forested areas within each subwatershed that are predominantly non-forested, include minimal proportion of forest cover consisting of small patch size.

Rationale: Section 11 of the Highlands Act requires a Resource Assessment of Highlands resources in order to maintaining the overall ecological values of the Highlands Region. Forest ecological integrity is a measure of the importance of forest cover to protect watershed characteristics that are important to maintaining water quality and quantity. Forest ecological integrity includes landscape level metrics applied on a watershed basis to identify those forests that include criteria most suited to support ecological processes. The ecological integrity of forested lands is affected by the degree of fragmentation, including total forest area, core forest area, patch area size, distance to nearest forest patch, and proportion of total forest. The Highlands Act includes specific goals to protect the natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forests, and critical habitat for fauna and flora (Section 10.b.3). The evaluation of forest ecological integrity, as a measure of fragmentation, provides guidance for where contiguous forests are located in the Highlands Region. The integration of the forest integrity indicators occurs through a decision model that assesses the extent to which one or more values indicate high, medium or low watershed protection needs, and how differences among them inform the overall rating.

- 4) The following standards shall be incorporated into the **Regional Protection Zone** of the Land Use Capability Map (LUCM) in furtherance of the goals and requirements of the Highlands Act to protect and enhance Highlands resources, as follows:

- Include all areas identified as the Forest Resource Area to the maximum extent practicable.
- Include all high integrity forest areas to the maximum extent practicable.
- No clearing of forest should be allowed within a Forest Resource Area unless in exceptional circumstances determined by public good, or when within a **Specially Planned Area**, as determined by the Highlands Council, and only upon demonstration that any relief of protection requirements will not impair or reduce the integrity of the forest.

- Where clearing of forest is permitted, Low Impact Development (LID) best management practices must be followed to minimize that impact, and mitigation and restoration of forest areas must be provided.
- Prioritize acquisition and/or TDR credit bonuses for lands within the Forest Resource Area.
- Encourage Forest Management and restoration practices on public and private lands that prioritize ecological and watershed protection measures.

Rationale: The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1) , 11.a.(6) and 12. An assessment of the extent of the Forest Resource Area and high integrity HUC14 subwatersheds facilitates an understanding of its regional significance to ensure that the level of protection afforded is adequate and appropriate. The results are used as one input to the Land Use Capability Map. Applicable Resource Protection and Smart Design standards can then be assigned to the extent they are appropriate and necessary to maintain ecological value.

- 5) The following standards shall be incorporated into the **Regional Conservation Zone** of the Land Use Capability Map in furtherance of the goals and requirements of the Highlands Act to provide the conservation based approach for agricultural areas, rural areas and suburban areas, as follows:

- Include all moderate integrity forest areas to the maximum extent practicable.
- Require Forest Protection and Restoration Plans and Low Impact Development (LID) Best Management Practices (BMPs) to mitigate for forest resource losses.
- Encourage Forest Management and restoration practices on public and private lands that prioritize ecological and watershed protection measures.

Rationale: The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1) , 11.a.(6) and 12. An evaluation of the condition and ecological integrity of forest areas within a subwatershed facilitates an assessment of its regional significance to ensure that the level of protection afforded is adequate and appropriate. The integrity of the forest areas supports the goals of the Act with consideration of the impacts of the dominant land use (e.g., open space, agriculture, low density development, higher density development) within the HUC 14. The results are used as one input to the Land Use Capability Map. Applicable Resource Protection and Smart Design standards can then be assigned based on regional indicators of forest area quality to the extent they are appropriate and necessary to maintain ecological value.

- 6) The following standards shall be incorporated into the **Regional Development Zone** of the Land Use Capability Map in furtherance of the goals and requirements of the Highlands Act within areas of existing developed land that may serve to support additional

development, redevelopment and voluntary TDR Receiving Zones based on infrastructure and land use conditions and local desire, as follows:

- Require Low Impact Development (LID) BMPs for any development activity to minimize clearing of forest.

Rationale: The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1) , 11.a.(6) and 12. An evaluation of the condition and ecological integrity of the forests within a subwatershed facilitates an assessment of their regional significance to ensure that the level of protection afforded is adequate and appropriate. The integrity of the Highlands forest areas supports the goals of the Act with consideration of the impacts of the dominant land use (e.g., open space, agriculture, low density development, higher density development) within the HUC 14. The results are used as one input to the Land Use Capability Map. Applicable Resource Protection and Smart Design standards can then be assigned based on regional indicators of forest area quality to the extent they are appropriate and necessary to maintain ecological value.

- 7) The following **Resource Protection Standards** are recommended for the RMP in furtherance of the goals and requirements of the Highlands Act to protect and enhance forest areas, including:
- Restrict clearing activities and new land uses within the Forest Resource Area or high integrity forest area.
 - Establish minimum site design guidelines and permissible uses within a forest area as follows:
 - a) Permissible uses within the Forest Resource Area or a high integrity forest area shall be limited to maintenance of pre-existing uses. No increase in land clearing shall be permitted. Prioritization for restoration of impaired areas shall be required wherever practical. Relief from strict adherence to Resource Protection Standards shall be permitted only within areas deemed a Specially Planned Area as approved by the Highlands Council. Acquisition and restoration of impaired areas within the Forest Resource Area shall be encouraged wherever practical.
 - b) Permissible uses within a moderate integrity forest area shall be limited to maintenance of pre-existing uses. Minimal clearing of forested lands shall be permitted upon approval of a Forest Protection and Restoration Plan and Low Impact Development (LID) BMP program approved by the Highlands Council.
 - c) Activities within a low integrity forest area shall encourage redevelopment of previously developed areas and allow for other compatible uses that minimize losses to forested lands in accordance with prior approval of a Forest Protection and Restoration Plan and Low Impact Development (LID) BMP program approved by the Highlands Council.
 - Establish minimum requirements for development and approval of Low Impact Development (LID) BMPs.
 - Require preparation and inclusion of Forest Protection and Restoration Plans within municipal zoning and land use ordinances.

- Establish minimum requirements for incorporation of Forest Stewardship and Management plans within municipal and County Open Space Plans.

Rationale: The RMP Standards support the necessity to determine the amount and type of human development and activity the Highlands Region can sustain while still maintaining the ecological value of the Highlands Region. Section 11.a.(1)(a). The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1) , 11.a.(6) and 12.

- 8) The following **Smart Design Standards** are recommended for the RMP in furtherance of the goals and requirements of the Highlands Act to encourage appropriate conservation based design throughout the region, including:

- Require upland forest identification methodology outlined in *Highlands Council Alternate Method for Identifying Upland Forest Areas in the Highlands* for any site or portion thereof as a mandatory requirement for any site plan application.
- Require development and implementation of a Forest Protection and Restoration Plan in designated growth areas in the Highlands.

Rationale: Pursuant to the Act, NJDEP has adopted the Highlands Water Protection and Planning Act Rules at N.J.A.C. 7:38. The rules at N.J.A.C. 7:38-3.9(b) provide a methodology to identify upland forested areas using a 16-point system to define upland forest areas. In addition, the rules at N.J.A.C. 7:38-3.9(e) enable NJDEP to identify as an upland forest area any other area so identified by the Highlands Council, using an alternate method of identification, after notice, public comment and consultation with the State Forester. The Highlands Council worked with NJDEP and the New Jersey State Forester to develop an alternate methodology to define upland forest areas. The alternate methodology is intended to further augment and refine the existing 16-point system for forests in the Highlands Region. The alternate methodology proposed a multi-step process to verify the presence of upland forest areas by means of aerial photograph interpretation and on-site field verification. Community forest plans would address forests and trees in parks, along roadways and public right of ways to increase forest cover, improve community forest health, reduce storm water flows increase precipitation infiltration rates, and promote nutrient uptake.

- 9) The following **Pre-Conformance Strategies** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure successful implementation of the RMP prior to the conformance period, including:

- Develop technical guidelines and procedures for development of Forest Stewardship and Management Plans for all preserved land as part of municipal and county Open Space Plans
- Develop technical guidelines for development of Forest Protection and Restoration plans for inclusion in municipal Master Plans, Zoning and Land Use Ordinances, as appropriate.

- Develop technical guidelines and procedures for development and implementation of Low Impact Development (LID) Best Management Practices to protect, enhance and restore forest resources within the Highlands.

Rationale: RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Highlands Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. Sections 11.a.(3), 14 and 15. The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region.

- 10) The following **Conformance Strategies** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure successful implementation of the RMP during the conformance period, including:

- Require that municipal conformance approval include forest area inventory, protection standards and approval guidelines consistent with the resource protection standards of the RMP.
- Require inclusion of Forest Protection and Restoration Plans into Municipal conformance documents, Master Plans, Zoning and Land Use Ordinances, as appropriate.
- Require inclusion of Forest Resource Area in the Conservation Element of Municipal and County Master Plans and inclusion in Open Space Plans.

Rationale: RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. Sections 11.a.(3), 14 and 15. The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region.

- 11) The following **5-year Resource Protection and Planning Goals** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure continued refinement and development of the RMP, including:

- Develop a coordinated agroforestry program throughout the Highlands Region
- Propose an amendment to the Farmland Assessment Act to include sustainable management provisions and yearly income adjustments for societal benefits provided by small, forest woodland owners.

- Establish a cooperative monitoring program for forest health within the region, using indicators of forest integrity, in cooperation with the US Forest Service and NJDEP Division of Forestry.

Rationale: Trees and forests are a renewable resource which, managed properly, can be maintained in perpetuity (sustainably) while being actively managed. In order to determine the sustainability of the forest resource in the Highlands Region there needs to be measurable scientific based data and information. The Highlands Act includes specific goals to protect the natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forests, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora (Section 10.b.3). The evaluation of forest health provides guidance for the status of the Region's forest resources and provides direction toward sustainable use of that resource.

The Highlands Act requires the Highlands Council to periodically revise and update the RMP at least once every six years. Section 8.a. RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. The RMP is a "living document" and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region. Sections 11.a.(3), 14 and 15.

12) The following **Coordination and Consistency Considerations** are recommended to promote active participation in the implementation of the RMP among state and federal agencies:

- In cooperation with the NJ Forest Service, create and maintain a Highlands Certified Forester and Logger Program.
- Coordinate with the NJ Forest Service and US Forest Service to develop standards for sustainable forestry practices consistent with the resource protection goals of the RMP as a required element of Forest Management Plans.
- Coordinate with NJDEP on controlling deer population within managed woodlands.
- Develop a coordinated regulatory review program with the NJDEP to ensure consistency of permit actions, open space acquisition priorities and public lands management strategies consistent with the resource protection goals of the RMP.
- Coordinate with the USDA Natural Resource Conservation Service and NJDA to promote forest area resource protection requirements and standards in Resource Management System and Farm Conservation Plans for existing agricultural uses to the maximum extent practical.

Rationale: RMP Implementation Strategies support the necessity to determine what local, State, and federal programs and policies may best be coordinated to promote the goals, purposes, policies, and provisions of the RMP. Sections 11.a.(4). The RMP is a "living document" and will continue to be refined and developed in support of regional planning

goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region.

13) The following **Local Participation Considerations** are recommended to promote the understanding and support for the RMP resource protection goals at the local level:

- Develop educational program for municipal officials on methods to develop a Forest Protection and Restoration Plan.
- Develop educational programs for municipal officials and land owners on forest management and stewardship methods.

Rationale: RMP Implementation Strategies support the necessity to provide for the maximum feasible local government and public input into the Highlands Council's operations. Section 11.a.(3). The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region.

II. REQUIREMENTS OF THE HIGHLANDS ACT AND RMP GOALS RELATED TO FOREST INTEGRITY PROTECTION REQUIREMENTS:

Goals of the Highlands Act:

In accordance with Section 10 of the Highlands Act, the overarching goal of the Regional Master Plan “with respect to the entire Highlands Region shall be to protect and enhance the significant values of the resources thereof in a manner which is consistent with the purposes and provisions of this act.” Section 10.a.

The Highlands Act establishes specific goals relating to protection of forest resources. Those goals with respect to the Preservation Area shall be to:

- protect, restore, and enhance the **quality and quantity of surface and ground waters**. Section 10.b.(1). (emphasis added).
- preserve **extensive and, to the maximum extent possible, contiguous areas of land in its natural state**, thereby ensuring the continuation of a Highlands environment which contains the **unique and significant natural**, scenic, and other resources representative of the Highlands Region. Section 10.b.(2). (emphasis added).
- protect the natural, scenic, and other resources of the Highlands Region, including but not limited to **contiguous forests**, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora. Section 10.b.(3). (emphasis added).
- preserve **farmland** and historic sites and other historic resources. Section 10.b.(4).
- promote compatible **agricultural, horticultural**, recreational, and cultural uses and opportunities within the framework of protecting the Highlands environment. Section 10.b.(8). (emphasis added).

- prohibit or limit to the maximum extent possible construction or development which is **incompatible with preservation of this unique area**. Section 10.b.(9). (emphasis added).

In addition, the goals with relating to protection of forested areas with respect to the Planning Area shall be to:

- protect, restore, and enhance the **quality and quantity of surface and ground waters**. Section 10.c.(1). (emphasis added).
- preserve to the maximum extent possible any **environmentally sensitive lands** and other lands needed for recreation and **conservation purposes**. Section 10.c.(2). (emphasis added).
- protect and maintain the **essential character of the Highlands environment**. Section 10.c.(3). (emphasis added).
- preserve **farmland** and historic sites and other historic resources. Section 10.c.(4). (emphasis added).
- promote the continuation and expansion of **agricultural, horticultural**, recreational, and cultural uses and opportunities. Section 10.c.(5). (emphasis added).

Requirements of the Highlands Act:

Resource Assessment

The Highlands Act includes specific requirements relating to protection of forest resources requiring the development of a Resource Assessment for the Highlands Region 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**; and (b) includes an assessment of scenic, aesthetic, cultural, historic, open space, **farmland**, and outdoor recreation resources of the region, together with a determination of overall policies required to maintain and enhance such resources;” Section 11.a.(1)(a) and (b)(emphasis added).

Smart Growth Component

The Highlands Act also includes specific requirements relating to protection of forest resources requiring the development of a Smart Growth component that includes “an assessment, based upon the resource assessment prepared pursuant to paragraph (1) of subsection a. of this section, of opportunities for appropriate development, redevelopment, and economic growth, and a transfer of development rights program In preparing this component, the council shall:

- (a) prepare a **land use capability map**;
- (b) identify existing developed areas capable of sustaining redevelopment activities and investment;
- (c) identify undeveloped areas in the planning area, which are not significantly constrained by environmental limitations such as steep slopes, wetlands, or **dense forests**, are not prime

agricultural areas, and are located near or adjacent to existing development and infrastructure, that could be developed;

(g) identify **special critical environmental areas and other critical natural resource lands** where development should be limited. Section 11.a.(6)(emphasis added).

Preservation Area Assessment

For the Preservation Area, Section 12 of the Highlands Act requires “**a land use capability map** and a comprehensive statement of policies for planning and managing the development and use of land in the preservation area, which shall be based upon, comply with, and implement the **environmental standards**” adopted by NJDEP and the **Resource Assessment prepared the Highlands Council** under Section 11. Section 12.(emphasis added).

Section 12 specifically requires implementation “that will ensure the continued, uniform, and consistent protection of the Highlands Region in accordance with the goals, purposes, policies, and provisions of this act, and shall include:

- a. a preservation zone element that **identifies zones within 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 land acquisition and the transfer of development rights; and
- b. minimum standards governing municipal and county master planning, development regulations, and other regulations concerning the development and use of land in the preservation area, including, but not limited to, standards for minimum lot sizes and stream setbacks, construction on steep slopes, maximum appropriate population densities, and **regulated or prohibited uses** for specific portions of the preservation area. Section 12.(emphasis added).

In addition, Section 36 of the Highlands Act requires that NJDEP’s permitting review approval without a waiver may be issued only upon a finding that the proposed major Highlands development:

- (1) would have a **de minimis impact on water resources** and would not cause or contribute to a significant degradation of surface or ground waters. In making this determination, the commissioner shall consider the extent of any impacts on water resources resulting from the proposed major Highlands development, including, but not limited to, the regenerative capacity of aquifers or other surface or ground water supplies, increases in stormwater generated, increases in impervious surface, increases in stormwater pollutant loading, changes in land use, and **changes in vegetative cover**;
- (2) would cause **minimal feasible interference with the natural functioning of animal, plant, and other natural resources** at the site and within the surrounding area, and **minimal feasible individual and cumulative adverse impacts to the environment** both onsite and offsite of the major Highlands development;
- (3) will result in **minimum feasible alteration or impairment of the aquatic ecosystem** including existing contour, vegetation, fish and wildlife resources, and aquatic circulation of a freshwater wetland;
- (4) **will not jeopardize the continued existence of species** listed pursuant to “The Endangered and Nongame Species Conservation Act,” P.L.1973, c. 309 (C.23:2A-1 et seq.) or the “Endangered Plant Species List Act,” P.L.1989, c. 56 (C.13:1B-15.151 et seq.), or which appear on the federal endangered or threatened species list, and **will not result in the likelihood of the destruction or adverse modification of habitat for any rare, threatened,**

or endangered species of animal or plant;

(5) is located or constructed so as to neither endanger human life or property nor otherwise impair the public health, safety, and welfare;

(6) would result in **minimal practicable degradation of unique or irreplaceable land types**, historical or archeological areas, and existing public scenic attributes at the site and within the surrounding area; and

(7) meets all other applicable department standards, rules, and regulations and State laws.” Section 36 (emphasis added)

Preservation Area Requirements

The NJDEP’s rules at N.J.A.C. 7:38-3.9 protect upland forested areas. In accordance with N.J.A.C. 7:38-3.9(e), the NJDEP will “identify as upland forest area any other area so identified by the Highlands Council, using an alternate method of identification.” The Highlands Council provided NJDEP with an alternative method of identification in September of 2005.

This rule implements the forest protection requirements in the Preservation Area pursuant to Section 34.k: including the “prohibition on development that disturbs upland forested areas, in order to prevent soil erosion and sedimentation, protect water quality, prevent stormwater runoff, and protect threatened and endangered animal and plant species sites and designated habitats; and standards to protect upland forested areas that require all appropriate measures be taken to avoid impacts or disturbance to upland forested areas, and where avoidance is not possible that all appropriate measures have been taken to minimize and mitigate impacts to upland forested areas and to prevent soil erosion and sedimentation, protect water quality, prevent stormwater runoff, and protect threatened and endangered animal and plant species sites and designated habitats.” Section 34.k.

The following activities are exempt from the Highlands Act: “an activity conducted in accordance with an approved woodland management plan pursuant to section 3 of P.L.1964, c. 48 (C.54:4-23.3) or the normal harvesting of forest products in accordance with a forest management plan approved by the State Forester.” Section 30.a.(7).

In addition, Section 31 of the Highlands Act includes restrictions on “agricultural or horticultural development in the preservation area that would result in the increase, after the date of enactment of this act either individually or cumulatively, of agricultural impervious cover by three percent or more of the total land area of a farm management unit.” The Department of Agriculture has adopted regulations, at N.J.A.C. 2:92, to implement this provision requiring the review and approval by the local soil conservation district of a farm conservation plan.

Section 31 also includes restrictions on “agricultural or horticultural development in the preservation area that would result in the increase, after the date of enactment of this act either individually or cumulatively, of agricultural impervious cover by nine percent or more of the total land area of a farm management unit.” Where there is a nine percent increase, there is a requirement for the review and approval by the local soil conservation district and NJDEP of a resource management systems plan which shall be prepared and submitted by the owner or operator of the farm management unit.

Local Participation Component

A component to provide for the maximum feasible local government and public input into the council's operations, which shall include a framework for developing policies for the planning area in conjunction with those local government units in the planning area who choose to conform to the regional master plan. Section 11.a.(3).

Coordination and Consistency Component

A coordination and consistency component which details the ways in which local, State, and federal programs and policies may best be coordinated to promote the goals, purposes, policies, and provisions of the regional master plan, and which details how land, water, and structures managed by governmental or nongovernmental entities in the public interest within the Highlands Region may be integrated into the regional master plan. Section 11.a.(4).

III. TECHNICAL BASIS AND JUSTIFICATION FOR STAFF RECOMMENDATIONS

In furtherance of the requirements and goals of the Highlands Act as summarized above, the Forest Area Protection Requirements of Ecosystem Management element of the RMP are intended to protect the natural resources of the Highlands Region, including but not limited to contiguous forests.

The Highlands Council has been charged with recommending policy to lay the groundwork for scientific management and long term sustainability of forest resources in the Highlands. A forest is a complex ecosystem defined by the interactions of living organisms and the surrounding environment. A native, healthy, and diverse forest cover is the preferred land use to protect water quality and quantity. The multiple benefits and values provided by forests are realized by society as a whole while individual landowners are responsible for the care and stewardship of this resource. The benefits to society should be realized when it comes to active management of the forested ecosystem and on private property in relation to the Farmland Assessment Act.

Despite being the most densely populated State in the Nation, forests cover 45% of New Jersey's land mass and 54% of the total of land area (approximately 464,200 acres) of the Highlands Region. As more pressure is placed on water resources, development continues, non-native species proliferate, and wildlife habitat is fragmented within watersheds which provide water outside the Highlands. Active management becomes more critical as time proceeds.

The purpose of this element is to recommend protection requirements of the Highlands forest areas for inclusion in the RMP and Land Use Capability Map based on the following actions in furtherance of the requirements and goals of the Act:

- identify forest areas and provide the framework for incorporation of these sites into the RMP and Land Use Capability Map.
- identify appropriate land use planning and management strategies that can help preserve these areas.

These approaches are based on the best available science and the results of the Resource Assessment performed in support of the RMP, and reinforced through the scientific literature and existing state or federal regulatory programs, where applicable. In addition, as required by Section 12 of the

Highlands Act for the Preservation Area, these approaches are based upon, comply with, and implement the environmental standards adopted by NJDEP and the Resource Assessment performed by the Highlands Council. This requirement of the Highlands Act authorizes the Highlands Council to integrate results of these two elements of the Act into a unified approach for the protection of Highlands resources.

IV. GLOSSARY

This section defines the terms that are used to develop the approach and methods that informed the proposed policy actions for this RMP element. Topic specific glossaries will contribute to the general RMP glossary of terms.

Altered Edge – The spatial delineation of the geographic boundary (i.e., edge) between forest and non-forest land.

Core Forest - Forest patches greater than 300 feet in distance to an altered edge.

Farm Conservation Plan - A site specific plan that prescribes needed land treatment and related conservation and natural resource management measures, including forest management practices, that are determined to be practical and reasonable for the conservation, protection, and development of natural resources, the maintenance and enhancement of agricultural or horticultural productivity, and the control and prevention of nonpoint source pollution.

Forest – A biological community as described in *Highlands Council Alternate Method for Identifying Upland Forest Areas in the Highlands*.

Forest Integrity – An expression of the application of landscape metrics to evaluate the effects of forest fragmentation across the Highlands landscape thereby recognizing the ability of Highlands forests to provide essential ecosystem functions.

Forest Management Plan – A site specific plan which prescribes needed land treatment and related conservation and natural resource management measures deemed to be practical and reasonable for the conservation and protection of forest productivity and the control and prevention of nonpoint source pollution.

Forest Patch - A forest patch represents a contiguous tract of forest bordered by either altered land or a road.

Forest Protection and Restoration Plan – A planning document developed at the municipal or county level that identifies forested areas appropriate for management and restoration, including strategies for implementation at the local or regional level.

Forest Resource Area- A Forest Resource Area includes high ecological integrity forest areas including those forested areas that express one or more of the following forest integrity indicators – a contiguous forest patch of equal to or greater than 500 acres in size, an area consisting of 250+ acres of Core forest greater than 300 feet from an altered edge, or areas that account for 45% or greater of mean total forest cover.

Forest Stewardship Plan – A management plan developed to address forest age class diversity for the Highlands to improve the resistance of forests to a catastrophic canopy loss; thereby contributing toward the prevention of water quality impairment from nutrient release and sedimentation.

Hydrologic Unit Code – Hydrologic Unit Code (HUC) means an area within which water drains to a particular receiving surface-water body, which is identified by a specific digit number, or “hydrologic unit code.” The HUC codes were developed by the U.S. Geological Survey. *N.J.A.C. 7:38-1.4.*

HUC14 - An area within which water drains to a particular receiving surface-water body, which is identified by a fourteen-digit number, or “hydrologic unit code.” In New Jersey, a HUC14 correlates to a subwatershed. *N.J.A.C. 7:38-1.4.*

Low Impact Development (LID) Best Management Practices – Low Impact Development is an environmentally sensitive approach to storm water management that emphasizes conservation and the use of existing natural site features integrated with distributed, small scale storm water controls to more closely mimic natural hydrologic patterns in residential, commercial and industrial settings. Low Impact Development (LID) best management practices involve comprehensive land planning and engineering design to maintain and enhance the hydrologic regime of urban lands and development within watersheds. Low Impact Development (LID) standards and best management practices are supported by the New Jersey Stormwater Management Rules, N.J.A.C. 7:8 and the “New Jersey Stormwater Best Management Practices Manual” developed by the New Jersey Department of Environmental Protection, in coordination with the New Jersey Department of Agriculture, the New Jersey Department of Community Affairs, the New Jersey Department of Transportation, municipal engineers, county engineers, consulting firms, contractors, and environmental organizations.

Proportion of Total Forest - Proportion of total forest cover within a 3km radius.

Resource Management System Plan - A site specific conservation system plan that (1) prescribes needed land treatment and related conservation and natural resource management measures, including forest management practices, for the conservation, protection, and development of natural resources, the maintenance and enhancement of agricultural or horticultural productivity, and the control and prevention of nonpoint source pollution, and (2) establishes criteria for resources sustainability of soil, water, air, plants, and animals.

Specially Planned Area - Previously developed lands that provide opportunities for redevelopment, including infill and adaptive reuse, based on limited resource constraints due to past development patterns. Within the Preservation Area a Specially Planned Area is limited to an area or site that contains at least 70% impervious area or is a Brownfield site determined to be Specially Planned Area by the Highlands Council and NJDEP.

Policy Consideration: **Agricultural Protection and Sustainability Requirements**
Status: **For Consideration by the Highlands Council at**
Date: **the September 21, 2006 Work Session**
September 19, 2006

I. STAFF POLICY RECOMMENDATIONS

- 1) The Regional Master Plan (RMP) shall provide for the protection of **Agricultural Resources** in the Highlands Region, and their protection areas shall be incorporated into the Land Use Capability Map (LUCM) in order to maintain, and enhance the Region's agricultural industry.

Rationale: The Agricultural Resources of the Highlands Region are vital, regionally significant resources in need of protection. The Highlands Act includes a specific finding that the agricultural industry in the Highlands Region is a "vital component of the economy, welfare, and cultural landscape of the Garden State." Section 2. In addition, Section 10 of the Act includes specific goals to preserve farmlands and promote agricultural uses and opportunities in the Highlands Region.

- 2) Establish **Agriculture Resource Areas** in the Land Use Capability Map to protect important agricultural resources in the Highlands Region.

Rationale: Section 11 of the Highlands Act requires a Resource Assessment in order to maintain and enhance the farmlands resources of the Highlands Region. The purpose for establishing Agriculture Resource Areas is to maintain and enhance the primary agricultural land base that is being used for, or offers the greatest potential for continued commercially significant agricultural production. An Agriculture Resource Area will include contiguous areas of 500 acres or more where parcels contain prime farmland soils are designated as in existing agricultural land use. An important factor used in determining important farmland is soil quality which is measured based on land capability classes, important farmland classes, and soil productivity rating. Soils data are prepared by the United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) and are used as the reference to identify soil quality. Another major factor is agricultural contiguousness. Studies show that an effective way to preserve agricultural land is to amass contiguous acreage (agricultural land mass that is not separated by intervening non-agricultural development). The larger the mass of farmlands, the greater the opportunity to preserve sufficient acreage to provide for significant productivity and maintain a sense of and support for an agricultural community.

- 3) The following standards shall be incorporated into the **Regional Conservation Zone** of the Land Use Capability Map (LUCM) in furtherance of the goals and requirements of the Highlands Act to maintain and enhance farmland resources, as follows:

- Include all areas identified as an **Agriculture Resource Areas** to the maximum extent practicable.

Rationale: The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1)(b), 11.a.(6) and 12. An assessment of the extent of Agriculture Resource Areas facilitates an understanding of its regional significance to ensure that the level of protection afforded is adequate and appropriate. The results are used as one input to the Land Use Capability Map.

4) The following **Resource Protection Standards** are required to support the goals and requirements of the Highlands Act to maintain and enhance Agricultural Resource Areas, including:

- Prohibit land development or alteration within an area determined to be an Agriculture Resource Area that is incompatible with the protection and management of Important Agricultural Soils and other natural resource protection requirements.
- Limit permissible uses within an Agricultural Resource Area to maintenance of pre-existing uses, and the uses of land that support the preservation of farmland and the continued viability of the agriculture industry.
- Include Agricultural Resource Area within municipal zoning and land use ordinances including site plan and subdivision review criteria and other techniques to maintain agricultural and horticultural uses and opportunities.
- Require the incorporation of Agricultural Resource Areas within municipal and County Farmland Preservation Plans.
- Encourage the utilization of Agricultural Conservation Practices within the Agricultural Resource Area that conform to the resource protection standards of the RMP to the maximum extent practical.
- Encourage the application of Agroforestry practices and techniques to cultivated farmland within the Agricultural Resource Area and Forest Resource Area.
- Encourage owners/operators of farmland with woodlots to have approved woodlot or forest management plans within the Agricultural Resource Area that conform to the resource protection standards of the RMP to the maximum extent practical.
- Encourage the inclusion of appropriate wildlife and invasive species management techniques in any Management and Stewardship Plan developed by a State, county or municipal government entity within the Agriculture Resource Area as part of conformance and/or consistency with the RMP.
- Encourage the use and expansion of current Agricultural Conservation Practices and cost sharing programs such as integrated pest management, soil conservation and nutrient management. See Appendix A which lists more of these practices.
- Encourage the preservation of Agriculture Resource Areas through easement or other preservation methods.

Rationale: The RMP Standards support the policies necessary to maintain and enhance the farmland resources in the Highlands Region. Section 11.a.(1)(b). The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1) , 11.a.(6) and 12. The implementation of agricultural conservation practices generally results in positive benefits. Many of these practices reduce the use of pesticides and fertilizers, reduce production costs because of the lesser need for chemical applications, reduce farm worker and consumer exposure to pesticides and improve water quality.

- 5) The following **Smart Design Standards** are required to support the goals and requirements of the Highlands Act to maintain and enhance Agricultural Resource Areas, including:

- Require ordinances, consistent with the “Right to Farm Act” which provide protections for active farm owners or operators and allow flexibility in regulations to accommodate the needs of agricultural operations to address issues such as seasonal needs, parking, temporary signs and off-site signs.
- Require the adoption of compact development ordinances including mandatory clustering provisions within the Agriculture Resource Area to adequately protect farmland and sensitive environmental resources through dedication of at least 80 percent of the site to farmland and open space preservation.

Rationale: The Highlands Act requires the development of Land Use Capability Map and minimum standards based upon the Resource Assessment and Smart Growth Component. Sections 11.a.(1), 11.a.(6) and 12. The Rural Conservation Zone includes significant agricultural areas and the concentration of development potential from large areas into compact development areas with preservation, through a conservation easement, of the undeveloped areas provides support for the preservation of farmland and the continued viability of the agriculture industry.

- 6) The following **Conformance Strategies** are recommended in furtherance of the goals and requirements of the Highlands Act to insure successful implementation of the RMP during the conformance period, including:

- Require a municipality or county with agricultural or horticultural resources in the Agricultural Resource Area to include these areas in **Farmland Preservation Plans** and the Conservation Plan elements in their respective master plans.
- Encourage a municipality or county with agricultural or horticultural resources in the Agricultural Resource Area to develop an Agriculture Sustainability Plan that includes the incorporation of the local agriculture industry into an economic development plan.

- Encourage an Agriculture Sustainability Plan that includes the use and expansion of marketing practices that include but are not limited to alternative marketing and Community Supported Agriculture.
- Develop technical guidelines to assist municipalities in the development of Agriculture element and Agriculture Sustainability plans.

Rationale: RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. Sections 11.a.(3), 14 and 15. Including agriculture resource areas in a municipal and county master plan will focus the governing body's dedication to the preservation of agriculture through clearly identifying municipal and county agricultural policies.

In order to maintain a profitable, strong agricultural industry an environment must exist that supports agriculture as a business. As a result, agricultural representation in local and regional business organizations and economic development agencies is recommended as well as integrating agriculture into traditional business support systems. Local Chambers of Commerce and associated organizations can aid in developing a Community Supported Agriculture program that links growers with local buyers and residents and help work with the State, county and local tourism boards to promote agritourism and eco-tourism activities to support the farm economy by allowing farmers to benefit from additional sources of income. Additionally local ordinance should be more flexible to allow farmers to expand their business.

At the same time, identifying and facilitating the creation of new markets helps farmers access an ever-changing marketplace. Farmers across the country are finding that innovative marketing strategies can improve profits. Direct marketing of agricultural goods may include selling at farmers markets, roadside stands, or through the world-wide web; delivering to restaurants and small grocers. Another method of innovative marketing is the use of Community Supported Agriculture, sometimes known as "subscription farming." Subscription farming (or marketing) arrangements tend to emphasize the economic benefits, for the farmer as well as consumer, of a guaranteed, direct market for farm products. Growers typically contract directly with customers, who may be called "members," and who have agreed in advance to buy a minimum amount of produce at a fixed price, but who have little or no investment in the farm itself.

- 7) The following **5-year Resource Protection and Planning Goals** are recommended in furtherance of the goals and requirements of the Highlands Act to ensure continued refinement and development of the RMP, including:
- Maintain an inventory Active Highlands Region Farms.
 - Continue to coordinate and standardize data collection among State and county agencies regarding open space and farmland preservation.

- Develop indicators to serve as an assessment tool in meeting agricultural and horticultural goals and policies.

Rationale: The Highlands Act requires the Highlands Council to periodically revise and update the RMP at least once every six years. Section 8.a. RMP Implementation Strategies support the necessity to determine what activities, data and programs will be required of both the Council and municipal and county stakeholders during the Plan Conformance process as well as what initiatives will require longer term planning goals. The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region. Sections 11.a.(3), 14 and 15.

- 8) The following **Coordination and Consistency Considerations** are recommended to promote active participation in the implementation of the RMP among state and federal agencies:

Department of Agriculture, State Agriculture Development Committee and the Garden State Preservation Trust

- Support full capitalization of programs that purchase agricultural properties either in fee or by easement and encourage farmers to utilize these programs.
- Encourage the preservation of Agriculture Resource Area farms under the SADC preservation programs.
- Assist in the development a Forest Easement Purchase Program that can be utilized by SADC and the NJDEP Green Acres Program.
- Support the extension of the dual appraisal method in the Garden State Preservation Trust Act (Trust Act) under the SADC preservation programs beyond June 30, 2009. Under N.J.S.A. 13:8C-38.j, appraisals are calculated using two values including pre-Highlands Act (January 1, 2004) values and present day values. The higher of these two appraisal values is to be utilized as the basis for negotiation.
- Coordinate and standardize data collection among State and county agencies regarding open space and farmland preservation.
- Establish incentives for preserving farmland in exchange for a landowner's agreement to permanently restrict the amount of impervious surface and agricultural impervious cover on a farm to a maximum of five percent of the total land area of the farm.

Federal Agency funding

- Encourage additional funding for Agriculture Resource Area farms under existing federal funding programs including but not limited to the Farm and Ranch Lands Protection Program and the Grassland Reserve Program.
- Recommend increased funding for programs that support the use of Agricultural Conservation Practices and the development of new programs in the Highlands Region. See Appendix B which lists these programs.

Department of Agriculture

- Explore innovative programs for Active Highlands Region Farmers, addressing including but not be limited to: State pension and health care programs; State loan guarantee program; Life insurance program; and Equity insurance.
- Encourage the coordinated review of internal and external policies and plans of county and State agencies exist that impact farms.
- Encourage the examination Agriculture viability issues. For example, New Jersey regulations do not permit dairies to sell “raw” milk, milk that is neither pasteurized nor homogenized while neighboring states do.

9) The following **Local Participation Considerations** are recommended to promote the understanding and support for the RMP resource protection goals at the local level:

- Assist municipal and county entities to gather agricultural and horticultural resource information to update and track existing data.
- Develop educational and technical training programs for municipal officials and interested citizens and organizations to promote a viable and environmentally sustainable agricultural and horticultural industry in their communities and in the Highlands Region.
- Educate the public on the economic, cultural and resource value of maintaining a viable and environmentally sustainable agricultural and horticultural industry in the Highlands.
- Educate landowners living next to farms and within the Agriculture Resource Area of the activities that can take place on the farm and the ramifications of the Right to Farm Act.
- Encourage farmers to participate in land use planning and decision-making.
- Provide instructional programs in town and in schools to give residents and students options beyond the standard curriculum. Many of the next generation of farmers may include individuals who did not come from agricultural backgrounds.

Rationale: RMP Implementation Strategies support the necessity to provide for the maximum feasible local government and public input into the Highlands Council's operations. Section 11.a.(3). The RMP is a “living document” and will continue to be refined and developed in support of regional planning goals. In order to facilitate regional planning goals it is imperative that the RMP have State, County, and local support from all levels of government and the support of the stakeholders of the Highlands Region.

II. REQUIREMENTS OF THE HIGHLANDS ACT AND RMP GOALS RELATED TO AGRICULTURAL PROTECTION AND SUSTAINABILITY:

Findings of the Highlands Act:

The Highlands Act includes specific legislative findings relating to agriculture:

“The Legislature further finds and declares that there are approximately **110,000 acres of agricultural lands in active production** in the New Jersey Highlands; that these lands are **important resources of the State that should be preserved**; that the agricultural industry in the region is a **vital component of the economy, welfare, and cultural landscape of the Garden State**; and, that in order to preserve the agricultural industry in the region, it is necessary and important to recognize and reaffirm the goals, purposes, policies, and provisions of the ‘Right to Farm Act,’ P.L.1983, c. 31 (C.4:1C-1 et seq.) and the **protections afforded to farmers** thereby.” Section 2. (emphasis added).

“[T]he **maintenance of agricultural production** and a positive agricultural business climate should be **encouraged to the maximum extent possible** wherever appropriate in the New Jersey Highlands.” Section 2. (emphasis added).

Goals of the Highlands Act:

In accordance with Section 10 of the Highlands Act, the overarching goal of the Regional Master Plan “with respect to the entire Highlands Region shall be to protect and enhance the significant values of the resources thereof in a manner which is consistent with the purposes and provisions of this act.” Section 10.a.

The Highlands Act establishes specific goals relating to agriculture. Those goals with respect to the Preservation Area shall be to:

- protect, restore, and enhance the **quality and quantity of surface and ground waters**. Section 10.b.(1). (emphasis added).
- preserve extensive and, to the maximum extent possible, contiguous areas of land in its natural state, thereby ensuring the continuation of a Highlands environment which contains the **unique and significant natural, scenic, and other resources representative of the Highlands Region**. Section 10.b.(2). (emphasis added).
- protect the natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forests, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora. Section 10.b.(3). (emphasis added).
- preserve **farmland** and historic sites and other historic resources. Section 10.b.(4).
- promote **conservation of water resources**. Section 10.b.(6).
- promote compatible **agricultural, horticultural**, recreational, and cultural uses and opportunities within the framework of protecting the Highlands environment. Section 10.b.(8). (emphasis added).
- prohibit or limit to the maximum extent possible construction or development which is **incompatible with preservation of this unique area**. Section 10.b.(9). (emphasis added).

In addition, the goals with relating to protection of riparian areas with respect to the Planning Area shall be to:

- protect, restore, and enhance the **quality and quantity of surface and ground waters**. Section 10.c.(1). (emphasis added).
- preserve to the maximum extent possible any environmentally sensitive lands and other lands needed for **recreation and conservation purposes**. Section 10.c.(2). (emphasis added).
- protect and maintain the **essential character of the Highlands environment**. Section 10.c.(3). (emphasis added).
- preserve **farmland** and historic sites and other historic resources. Section 10.c.(4). (emphasis added).
- promote the continuation and expansion of **agricultural, horticultural**, recreational, and cultural uses and opportunities. Section 10.c.(5). (emphasis added).
- promote **conservation of water resources**. Section 10.c.(7).

Requirements of the Highlands Act:

Resource Assessment

The Highlands Act includes specific requirements relating to protection of agricultural resources requiring the development of a Resource Assessment for the Highlands Region 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; and (b) includes an assessment of scenic, aesthetic, cultural, historic, open space, **farmland**, and outdoor recreation resources of the region, together with a determination of overall **policies required to maintain and enhance** such resources.” Section 11.a.(1)(a) and (b)(emphasis added).

Smart Growth Component

The Highlands Act also includes specific requirements relating to protection of agricultural resources requiring the development of a Smart Growth component that includes “an assessment, based upon the resource assessment prepared pursuant to paragraph (1) of subsection a. of this section, of opportunities for appropriate development, redevelopment, and economic growth, and a transfer of development rights program In preparing this component, the council shall:

- (a) prepare **a land use capability map**;
- (b) identify existing developed areas capable of sustaining redevelopment activities and investment;
- (c) identify undeveloped areas in the planning area, which are not significantly constrained by environmental limitations such as steep slopes, wetlands, or dense forests, are not **prime agricultural areas**, and are located near or adjacent to existing development and infrastructure, that could be developed. Section 11.a.(6)(emphasis added).

Preservation Area Assessment

For the Preservation Area, Section 12 of the Highlands Act requires “**a land use capability map** and a comprehensive statement of policies for planning and managing the development

and use of land in the preservation area, which shall be based upon, comply with, and implement the **environmental standards” adopted by NJDEP and the Resource Assessment prepared the Highlands Council** under Section 11. Section 12.(emphasis added).

Section 12 specifically requires implementation “that will ensure the continued, uniform, and consistent protection of the Highlands Region in accordance with the goals, purposes, policies, and provisions of this act, and shall include:

- a. a preservation zone element that **identifies zones within 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 land acquisition and the transfer of development rights; and
- b. minimum standards governing municipal and county master planning, development regulations, and other regulations concerning the development and use of land in the preservation area, including, but not limited to, standards for minimum lot sizes and stream setbacks, construction on steep slopes, maximum appropriate population densities, and **regulated or prohibited uses** for specific portions of the preservation area. Section 12.(emphasis added).

Preservation Area Requirements

The NJDEP’s rules at N.J.A.C. 7:38 are not applicable to most agricultural activities because the definition of a “Major Highlands development shall not mean an **agricultural or horticultural development** or **agricultural or horticultural use** in the preservation area.” Section 3. The following definitions from Section 3 are applicable:

"Agricultural or horticultural development" means construction for the purposes of supporting common farmsite activities, including but not limited to: the production, harvesting, storage, grading, packaging, processing, and the wholesale and retail marketing of crops, plants, animals, and other related commodities and the use and application of techniques and methods of soil preparation and management, fertilization, weed, disease, and pest control, disposal of farm waste, irrigation, drainage and water management, and grazing.

"Agricultural or horticultural use" means the use of land for common farmsite activities, including but not limited to: the production, harvesting, storage, grading, packaging, processing, and the wholesale and retail marketing of crops, plants, animals, and other related commodities and the use and application of techniques and methods of soil preparation and management, fertilization, weed, disease, and pest control, disposal of farm waste, irrigation, drainage and water management, and grazing.

In addition, Section 31 of the Highlands Act includes restrictions on “**agricultural or horticultural development** in the preservation area that would result in the increase, after the date of enactment of this act either individually or cumulatively, of **agricultural impervious** cover by three percent or more of the total land area of a **farm management unit.**” The Department of Agriculture has adopted regulations, at N.J.A.C. 2:92, to implement this provision requiring the review and approval by the local **soil conservation district** of a **farm conservation plan.**

Section 31 also includes restrictions on “**agricultural or horticultural development** in the preservation area that would result in the increase, after the date of enactment of this act either individually or cumulatively, of **agricultural impervious cover** by nine percent or more of the total land area of a **farm management unit**.” Where there is a nine percent increase, there is a requirement for the review and approval by the local soil conservation district and NJDEP of a resource management systems plan which shall be prepared and submitted by the owner or operator of the **farm management unit**.

Local Participation Component

A component to provide for the maximum feasible local government and public input into the council's operations, which shall include a framework for developing policies for the planning area in conjunction with those local government units in the planning area who choose to conform to the regional master plan. Section 11.a.(3).

Coordination and Consistency Component

A coordination and consistency component which details the ways in which local, State, and federal programs and policies may best be coordinated to promote the goals, purposes, policies, and provisions of the regional master plan, and which details how land, water, and structures managed by governmental or nongovernmental entities in the public interest within the Highlands Region may be integrated into the regional master plan. Section 11.a.(4).

III. TECHNICAL BASIS AND JUSTIFICATION FOR STAFF RECOMMENDATIONS

The preservation of farmland and the promotion of agriculture in the Highlands Region are two essential objectives of the Highlands Act. The Legislature declared in Section 2 the Highlands Act that over 110,000 acres of agricultural lands in active production in the Highlands Region are important resources of the State that should be preserved, and that the agricultural industry in the Highlands Region is a vital component of the economy, welfare, and cultural landscape of the Garden State. The Legislature also declared that the maintenance of agricultural production and a positive agricultural business climate should be encouraged to the maximum extent possible wherever appropriate in the New Jersey Highlands.

To date, 16,099 acres have been preserved in the Highlands Planning Area and 10,024 acres have been preserved in the Preservation Area, totaling 26,123 acres since the inception of New Jersey's Farmland Preservation Program in 1983. However, in the Region, there are a total of 118,216 acres in agriculture land use. More than just preservation is needed to continue the viability of farming in the Highlands. Funds supporting sustainable farming practices are also needed.

In 2002, the USDA Forest Service undertook an update study of their 1992 New York – New Jersey Highlands Region report. The technical report of the study included a farmland conservation value assessment (CVA) as part of a broader CVA score that included four other resource factors for the two-state region. The reports objective for the productive farmland resources was to identify those areas that have the highest value for maintaining agriculture as a viable activity.

This objective was translated into a set of factors designed to identify and rank lands for their value for productive farmland. The assessment ranked areas having prime farm soils and larger contiguous tracts of farmland. Maintaining larger areas of contiguous farmland enhances the efficiency of farm operations and reduces conflicts with adjacent landowners, helping to sustain longer term viability of agricultural activities and the integrity of the rural landscape. This was accomplished by weighting tracts of contiguous farmland greater than 500 acres in size with a higher ranking.

With the Highlands Study's farmland CVA as background, it was determined that in order to maintain and enhance agricultural practices in the Highlands Region, an Agricultural Resource Area should be created to inform the Resource Assessment. Ranking the quality of agriculture lands was accomplished by assigning resource values to farm lands. The purpose for designating agriculture resource values is to preserve, stabilize, and enhance the primary agricultural land base that is being used for, or offers the greatest potential for continued commercially significant agricultural production. After examining many factor used to rank farmland, the evaluation system used in this report ranks farm parcels based on their relative agricultural importance using soil quality and the contiguity of agricultural parcels.

An important factor used in determining important farmland is soil quality which is measured based on land capability classes, important farmland classes, and soil productivity rating. Soils data are prepared by the United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) and are used as the reference to identify soil quality. The four soil types that are considered important for farming are Prime, Statewide Importance, Unique, or Locally Important soils. Usually a percentage figure for each of these four soil categories is calculated for the entire farm.

In addition, studies show that an effective way to preserve agricultural land is to amass contiguous acreage (agricultural land mass that is not separated by intervening non-agricultural development). The larger the mass of farmland, the greater the opportunity to preserve sufficient acreage to provide for significant productivity; retain dealers of agricultural equipment and supplies nearby; and maintain a sense of and support for an agricultural community.

The term "sustainable agriculture" means something different to every farmer, agricultural community member, and policymaker. (RCRE). "Sustainable agriculture" was addressed by Congress in the 1990 "Farm Bill". Under that law, "the term sustainable agriculture means an integrated system of plant and animal production practices having a site-specific application that will, over the long term:

- Satisfy human food and fiber needs
- Enhance environmental quality and the natural resource base upon which the agricultural economy depends
- Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls
- Sustain the economic viability of farm operations
- Enhance the quality of life for farmers and society as a whole."

Sustainable agriculture also protects open space and the traditional characteristics of rural communities. Moreover, it helps landowners maintain their farms rather than being forced to sell their land because of pressure from development; keeping it in private ownership.

There are no federal, state, county or local standards for agriculture sustainability per se. "Sustainable agriculture does not refer to a prescribed set of practices. Instead, it challenges producers to think about the long-term implications of practices and the broad interactions and dynamics of agricultural systems. It also invites consumers to get more involved in agriculture by learning more about and becoming active participants in their food systems. A key goal is to understand agriculture from an ecological perspective--in terms of nutrient and energy dynamics, and interactions among plants, animals, insects and other organisms in agroecosystems --then balance it with profit, community and consumer needs." [Sustainable Agriculture Research and Education (SARE), *Exploring Sustainability in Agriculture: Ways to Enhance Profits, Protect the Environment and Improve Quality of Life*, (SARE, 2003).

IV. GLOSSARY

This section defines the terms that are used to develop the approach and methods that informed the proposed policy actions for this RMP element. Topic specific glossaries will contribute to the general RMP glossary of terms.

“Active Highlands Region Farm” means (1) a farm management unit of no less than five acres producing agricultural or horticultural products worth \$2,500 or more annually, and satisfying the eligibility criteria for differential property taxation pursuant to the "Farmland Assessment Act of 1964," P.L.1964, c.48 (C.54:4-23.1 et seq.), or (2) a farm management unit less than five acres, producing agricultural or horticultural products worth \$50,000 or more annually and otherwise satisfying the eligibility criteria for differential property taxation pursuant to the "Farmland Assessment Act of 1964," P.L.1964, c.48 (C.54:4-23.1 et seq.). *N.J.S.A. 4:1C-3*.

“Agricultural or horticultural development” means construction for the purposes of supporting common farmsite activities, including but not limited to: the production, harvesting, storage, grading, packaging, processing, and the wholesale and retail marketing of crops, plants, animals, and other related commodities and the use and application of techniques and methods of soil preparation and management, fertilization, weed, disease, and pest control, disposal of farm waste, irrigation, drainage and water management, and grazing. *Section 3*.

“Agricultural impervious cover” means agricultural or horticultural buildings, structures, or facilities with or without flooring, residential buildings, and paved areas, but shall not mean temporary coverings. *Section 3*.

“Agricultural or horticultural use” means the use of land for common farmsite activities, including but not limited to: the production, harvesting, storage, grading, packaging, processing, and the wholesale and retail marketing of crops, plants, animals, and other related commodities and the use and application of techniques and methods of soil preparation and management, fertilization, weed, disease, and pest control, disposal of farm waste, irrigation, drainage and water management, and grazing. *Section 3*.

“Farm conservation plan” means a site specific plan that prescribes needed land treatment and related conservation and natural resource management measures, including forest management practices, that are determined to be practical and reasonable for the conservation, protection, and development of natural resources, the maintenance and enhancement of agricultural or horticultural productivity, and the control and prevention of nonpoint source pollution.

“Farm management unit” means a parcel or parcels of land, whether contiguous or noncontiguous, together with agricultural or horticultural buildings, structures and facilities, producing agricultural or horticultural products, and operated as a single enterprise.

“Impervious surface” means any structure, surface, or improvement that reduces or prevents absorption of stormwater into land, and includes porous paving, paver blocks, gravel, crushed stone, decks, patios, elevated structures, and other similar structures, surfaces, or improvements. *Section 3.*

“Major Highlands development” means, except as otherwise provided pursuant to subsection a. of section 30 of this act, (1) any non-residential development in the preservation area; (2) any residential development in the preservation area that requires an environmental land use or water permit or that results in the ultimate disturbance of one acre or more of land or a cumulative increase in impervious surface by one-quarter acre or more; (3) any activity undertaken or engaged in the preservation area that is not a development but results in the ultimate disturbance of one-quarter acre or more of forested area or that results in a cumulative increase in impervious surface by one-quarter acre or more on a lot; or (4) any capital or other project of a State entity or local government unit in the preservation area that requires an environmental land use or water permit or that results in the ultimate disturbance of one acre or more of land or a cumulative increase in impervious surface by one-quarter acre or more. Major Highlands development shall not mean an agricultural or horticultural development or agricultural or horticultural use in the preservation area. *Section 3.*

“Resource management systems plan” means a site specific conservation system plan that (1) prescribes needed land treatment and related conservation and natural resource management measures, including forest management practices, for the conservation, protection, and development of natural resources, the maintenance and enhancement of agricultural or horticultural productivity, and the control and prevention of nonpoint source pollution, and (2) establishes criteria for resources sustainability of soil, water, air, plants, and animals. *Section 3.*

“Soil conservation district” means the same as that term is defined in R.S. 4:24-2. *Section 3.*

“State Soil Conservation Committee” means the State Soil Conservation Committee in the Department of Agriculture established pursuant to R.S. 4:24-3. *Section 3.*

V. APPENDIX A

Examples of Sustainable Agriculture Conservation Practices

Integrated Pest Management (IPM)

IPM is an approach to managing pests by combining biological, cultural, physical and chemical tools in a way that minimizes economic, health and environmental risks.

Rotational Grazing

Management-intensive grazing systems take animals out of the barn and into the pasture to provide high quality forage and reduced feed costs while avoiding manure buildup.

Soil Conservation

Many soil conservation methods, including strip cropping, reduced tillage and no-till, help prevent loss of soil due to wind and water erosion.

Water Quality/Wetlands

Water conservation and protection have become important parts of agricultural stewardship. Practices such as planting riparian buffer strips can improve the quality of drinking and surface water, as well as protect wetlands. Farm ponds can contribute to flood management and groundwater recharge as well as nesting and feeding habitat for various species of waterfowl.

Cover Crops

Growing plants such as rye, clover or vetch after harvesting a grain or vegetable crop or intercropping them can provide several benefits, including weed suppression, erosion control and improved soil nutrients and soil quality.

Crop/Landscape Diversity

Growing a greater variety of crops and livestock on a farm can help reduce risks from extremes in weather, market conditions or pests. Increased diversity of crops and other plants, such as trees and shrubs, also can contribute to soil conservation, wildlife habitat and increased populations of beneficial insects.

Nutrient Management

Proper management of manure, nitrogen and other plant nutrients can improve soil and protect the environment. Increased use of on-farm nutrient sources, such as manure and leguminous cover crops, also reduces purchased fertilizer costs.

Agroforestry

Agroforestry intentionally combines agriculture and forestry to create integrated and sustainable land-use systems. Agroforestry takes advantage of the interactive benefits from combining trees and shrubs with crops and/or livestock. Agroforestry practices include: alleycropping – an agricultural crop is grown simultaneously with a long-term tree crop to provide income while the tree crop matures; forest farming – the cultivation of high-value crops under the protection of a forest canopy; riparian forested buffers – streamside forest buffers are established to prevent non-point source pollution; silvopasture – combines trees with forage and livestock forage; and windbreaks – linear plantings designed to enhance crop production.

Drought Assistance

New Jersey has adopted a Drought Management Plan, which provides the guidelines and policies for water use during emergencies. The Drought Management Task Force implements these policies and provides hardship exemptions from water use restrictions when warranted. Agricultural water use including the irrigation of food and fiber crops, sod at commercial sod farms, water use for livestock and other animal operations is exempt from restrictions, provided that all watering is done in accordance with best management practices.

VI. APPENDIX B

Examples of Existing Conservation and Technical Support Programs

Agricultural Management Assistance (AMA): Provides cost-share assistance to agricultural producers through the Natural Resources Conservation Service (NRCS) district offices to address risk management concerns linked to water management, water quality and erosion control issues. www.nj.nrcs.usda.gov/programs/ama/

Conservation of Private Grazing Land Program (CPGP)

The CPGP program helps owners and managers of private grazing land address natural resource concerns while enhancing grazing land and rural communities. Privately owned grazing land is eligible, including private, State, Tribal, and other non-federally owned land managed to produce livestock and wildlife. Technical assistance is provided by NRCS in maintaining and improving grazing land, land management, conserving, improving, and maintaining water quality, fish and wildlife habitat, and recreational opportunities. Financial assistance is through other Farm Bill programs or other local resources. www.nj.nrcs.usda.gov/programs/cpgp

Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP)

CRP provides for annual rental payments and cost-share assistance to establish long-term resource conserving land covers on eligible farmland. CREP is a cooperative State-Federal conservation program targeted to address environmental impacts related to agricultural practices. The NJDA and NJDEP are co-sponsors for this voluntary program that offers financial incentives to encourage farmers to create stream buffers on existing farmland. CREP objectives are: to maintain and improve water quality by reducing agricultural pollutants into streams, and to enhance farm viability and to contribute to the State's open space goals.

Farmland enrolled in this program will be under rental contract for 10-15 years or placed into both a permanent easement contract and a 10-15 year contract agreement in order to reduce non-point source impairment through the preservation of stream buffers and implementation of conservation practices on existing farmland.

CREP targets 30,000 acres of agricultural land throughout the State. The program has been authorized for up to \$100 million in federal funds and involves a state match of \$23 million

over the life of the Program, and will pay 100% of the cost to establish the conservation practices and annual rental and incentive payments to the landowner.

The agricultural community supports the CREP program as it provides a way for New Jersey farmers to be recognized and compensated for their environmental stewardship. The industry also supports the voluntary nature of the Program and its ability to enhance farm viability. NRCS provides technical services for CREP, while the program is financially administered by the USDA Farm Services Agency. www.fsa.usda.gov/dafp/cepd/crp.htm

Conservation Security Program (CSP)

CSP rewards producers who are actively protecting soil and water quality on their cropland and pasture, provides additional incentives for exceeding minimum standards and applies to privately owned land that meets certain eligibility requirements. Based on participation tier, landowner will receive payments of up to \$45,000 annually for 5-10 years. NRCS administers this program. www.nj.nrcs.usda.gov/programs/crp

Deer Fencing Program

The New Jersey Department of Agriculture and the New Jersey Department of Environmental Protection's Division of Fish and Wildlife provide assistance to farmers experiencing crop damage caused by deer. The cost-share program, in which the farmer would bear part of the cost and the responsibility for installation, provides fencing material, plus up to 30 percent of the line posts at no cost to qualified farmers.

The New Jersey Department of Agriculture and the New Jersey Department of Environmental Protection's Division of Fish and Wildlife provide assistance to farmers experiencing crop damage caused by deer. The cost-share program, in which the farmer would bear part of the cost and the responsibility for installation, provides fencing material, plus up to 30 percent of the line posts at no cost to qualified farmers.

Environmental Quality Incentives Program (EQIP)

EQIP provides assistance to install permanent measures or adopt new management strategies that address existing resource concerns on farms. EQIP promotes agricultural production and environmental quality as compatible goals. Private agricultural land, including eligible cropland, rangeland, pasture, private non-industrial forest land, and other farm or ranch lands are eligible. Financial and technical assistance; cost share payments covering up to 75% of conservation practices for up to 10 years. www.nj.nrcs.usda.gov/programs/eqip

Farm and Ranch Land Protection Program (FRPP)

As mentioned above, the FRPP is a Federal program managed by the USDA Natural Resources Conservation Service (NRCS). The goal of the program is to protect farm and ranch lands that contain prime, unique, or statewide and locally important soils or historic and archaeological resources from conversion to non-agricultural uses. The program preserves valuable farm and ranch lands for future generations. USDA NRCS achieves this goal by working cooperatively with State, Tribal, and local governments and non-governmental organizations.

For Federal fiscal year 2005, the SADC was provided a Federal cost-share grant in the amount of \$4.22 million for the preservation of farmland. This funding was used to provide

a 20 percent Federal cost-share on the purchase of development easements on eligible farmland. The Federal cost-share must be based on the current fair market value of the development easement. For farms located in the Highlands region, the SADC will apply the entire 20 percent Federal grant against the local cost share. This can result in a significant savings to the county and/or municipality.

Landowners who agree to accept federal funds are required to include deed restrictions that are specific to the federal Farm and Ranch Lands Protection Program. One of the requirements is a restriction on impervious coverage allowed on the premises. Depending on how the application ranks with regard to its size, percentage of important soils (prime, statewide, unique and locally important), and location in particular population densities, the amount of impervious cover will vary between two and six percent. Any farm less than 50 acres is eligible for one acre of impervious cover and landowners are also required to implement a farm conservation plan on highly erodible soils. The NRCS is responsible for preparing a farm conservation plan in cooperation with the landowner to address any conservation needs. www.nj.nrcs.usda.gov/programs/frpp

Rutgers Cooperative Extension (RCE)

The RCE helps the diverse population of New Jersey adapt to a rapidly changing society and improve their lives through an educational process that uses science-based knowledge. RCE focuses on issues and needs relating to agriculture and the environment; management of natural resources; food safety, quality, and health; family stability; economic security; and youth development.

Soil and Water Conservation Grants

The SADC provides grants to eligible landowners to fund up to 75% of the costs of approved soil and water conservation projects, up to a capped amount that is renewed every eight years. Landowners apply to local Soil Conservation Districts, which assist in developing farm conservation plans. Farms must be permanently preserved or enrolled in an 8 year preservation program www.nj.gov/agriculture/pdf/grants/soil&watergrants/pdf

Wildlife Habitat Incentives Program (WHIP): Under this program, NRCS assists landowners with habitat restoration and management activities specifically targeting fish and wildlife, including threatened and endangered species.

www.nj.nrcs.usda.gov/programs/whip/

Wetlands Reserve Program (WRP)

WRP provides financial incentives to landowners to enhance and restore wetlands on lands previously drained for agricultural use. Landowners benefit by seeing a reduction in problems associated with farming in potentially difficult areas. Landowners must have owned the land for at least 12 months before enrollment. Most private wetlands that were converted before 1985 are eligible. Land must be restorable and meet certain eligibility requirements. *Permanent easement* – offers 100% of permanent easement and construction costs; *30-yr. Easement* – 75% of permanent easement and construction costs; *Restoration Cost-Share Agreement* – 75% cost-share for construction costs; agreements up to 10 years. www.nj.nrcs.usda.gov/programs/wrp

HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL PUBLIC AVAILABILITY SESSION – SEPTEMBER 21, 2006

At 4:15 p.m. on September 21, 2006, immediately following the meeting of the Highlands Water Protection and Planning Council, Chairman John Weingart convened a public availability session. Joining him were Council members, Debbie Pasquarelli, Tracy Carluccio, Tim Dillingham, Mimi Letts and Kurt Alstede. He advised that one issue which the Council is working to resolve was how the length of the public comment period on the draft plan, and the Council is open to suggestions in that regard.

David Shope, Long Valley. Mr. Shope said that people have been building on steep slopes in New Jersey for hundreds of years and the stone houses have not slid anywhere and said the building techniques of the past could teach how to build on them today. Mr. Shope said that as far as ground water recharge is concerned, he asked what ecological benefit landowners will derive for the limited use of their land for collecting water and having it sent out to privately owned water companies. He also said he didn't believe he should have to preserve the water to have it float downstream, treated at a lesser quality and then have it pumped out into the ocean where it is polluted. Mr. Shope said that water used in the Highlands by septic systems and wells, have recharge at 80% back into the ground. He said that water that leaves the area varies from 75% to 100% consumptive to the watershed. Under the forestry policy document, number eleven, bullet two, Mr. Shope said he feels it is a tacit admission of the need for subsidies for agricultural viability. He asked what the return on equity would be and in his opinion it would be non-existent. Mr. Shope said that the report he read about sustainable agriculture did not contain a single dollar amount and that agricultural equipment dealers have left the area, and when he needs parts for his John Deer he gets them from Pennsylvania. Mr. Shope noted that the average farm size in Hunterdon is 70 acres and in Warren County it is 90 acres according to the 2002 USDA report, and the 70 acre farm in Hunterdon County lost \$12,000 per farm, in Warren it made \$4,000 per 90 acre farm, which is not a good return on equity. Lastly, he said that New Jersey taking cases would not be resolved the same way in the Federal system.

Tom Dallessio, Regional Plan Association. Mr. Dallessio said that the timing issue and public involvement and timing for adoption of the plan are crucial. He said he didn't think it the process should go on any longer than necessary but after having worked with mayors and on planning boards, he noted there is always a focus on process and therefore trust the process and the information. He said the Council should be able to synthesize the materials. He noted the timeframe is very short, even if the Council released the draft plan within a month, that it would be very difficult to adopt it by the end of the year if a comprehensive process is utilized. Mr. Dallessio said he used Joe Maraziti as a mentor in the State planning process, he said that no one has ever criticized the process he established, regardless of what their thoughts were on the State plan itself. Mr. Dallessio said the process made sure that every person had their say and had a chance to read and comment, and then let the staff of the Planning Commission read the comments and consider how to address them. Mr. Dallessio said his concern is that if the Council attempts to adopt a plan in the next two months, with a release in October, there will be a 30 day comment process, with the task of asking the staff not only during the holidays, he noted this was also a crucial time of year to synthesize information. Mr. Dallessio said if it is perceived that the public does not have enough time to comment, the plan would start on the wrong foot. Mr. Dallessio said he did not know whether it is an issue of having a 30 day or 60 day comment period but that the Council work to ensure that the public has enough time. This may require an adoption in January or early February. Mr. Dallessio said he thinks the Council is on the right course and its committees are addressing critical issues, and he offered his encouragement and advice. Mr. Dallessio also mentioned that not only do national holidays come into play in November and December, but the League of Municipalities is also coming up in November. There are a lot of days off, and this may complicate the ability to have public hearings.

Elizabeth George-Cheniara, New Jersey Builders Association. Ms. George-Cheniara noted that NJBA members are concerned with the Highlands Council policy papers because they inform the Highlands Regional

Master Plan, implementation framework components and LUCM. She noted that she felt the policy papers were problematic on several levels. She stated that the strategies that assume necessary underlying decisions have been made. The blind to the line issue is still not understood by all members. She stated that three standards are listed but the Council has not voted on the zones. Work session discussion indicates that members don't fully understand their charge. Ms. George-Cheniara stated that she thought the Council should review the overlay zones so that it has a clear view of where the areas are and how the standards are being applied. She thought that they are clearly not blind to the line. Ms. George-Cheniara provided a written copy of her comments.

Nicole Goger, Farm Bureau. Ms. Goger commented on the past three public work sessions, she noted that a lot of information has been provided to the Council. Ms. Goger said that the public has not been given much time to review the policy papers or background documents before the meetings. Ms. Goger said that in light of the complex documents, it is obvious that the draft plan will be very large and will take a long time to go through and review. Ms. Goger noted that based upon the Council's deadline she didn't believe it was likely that a lot of time will be afforded for public review. She thought 30 days was insufficient, and that at least 60 days should be given. She noted that it is disappointing to the farmers, and the Farm Bureau feels it is more important that they be included in the process before the RMP is final. She said they should be able to cite their opinions on controversial issues before a final draft is adopted. Ms. Goger noted that some issues were covered in background documents at the first work session, but that those documents are no longer being completed due to the input of the Council members to consolidate the background documents with the policy documents. Ms. Goger noted that the background and science is necessary for those wishing to comment on the technical issues.

Deborah Post, Chester. Ms. Post noted for the record, that public comment was a bit of an insult since she believed she was speaking to an empty room. Ms. Post thought the absence of public comment sessions at the meetings displays disregard. Ms. Post said she is currently a farmer and that in the past she was an expert on the subject of business viability. She advised that she was a managing director in restructuring department of a major investment firm responsible for assistant bankrupt and troubled companies. She noted she appeared in court as an expert witness in bankruptcy courts and that she graduated from Harvard business school with honors with a specialization in finance. Ms. Post said she feels qualified to speak on the subject of agricultural viability. She noted that agriculture in northwestern New Jersey is not generally viable. She noted there may be niche markets such as farm tour birthday parties that approach profitability, but they are the exception. She said that community supported agriculture is fanciful silliness. She said that traditional farming for vegetables, fruit, corn, hay and cows do not generate revenues adequate to cover the expenses of operating in New Jersey. Ms. Post said that farm labor is non-existent. She noted that she must grow and sell 16,000 pounds of apples to pay the Township taxes of Chester Township. She noted support services are not priced for farmers, and that insurance costs are huge. Ms. Post said the bureaucratic burdens of the RMP will be excessive costs to farmers operations. Ms. Post said that most farmers today are funding their operating losses with debt. Viability is earning an adequate equity return on invested capital. 10% adjusted for inflation is a historical equity return noted in textbooks, and she believes a 10% return is woefully inadequate. She stated that there is no economic agricultural beneficial use that provides an acceptable equity return on invested capital in New Jersey's Highlands.

Nancy Chambellan, Warren County Environmental Commission. Ms. Chambellan noted that she appreciated the Council's focus on groundwater resources and not just surface water. She said that Warren County residents are totally dependent on groundwater for its water resources which are placed in the planning area. She noted she felt encouraged by the discussion at the meeting and also found it interesting in the forestry discussion when the suggestion was made by the Council to levy additional fines for violations that arise. She asked if that ultimately that comes to pass that the money not be put in the general NJ Treasury as they are with the DEP, and that somehow be reserved for the Council to be put into incentives and restoration projects in the Highlands. Ms. Chambellan thanked the Council for recognizing the agricultural areas as high resource values.

She asked that the Council continue to please support and facilitate to keep farming as economically viable in the context of environmental stewardship. Ms. Chambellan also asked that the Council continue working on the local business program such as Buy Fresh and Buy Local where community members and farmers join together and commit to purchase products to help the farmer be more economically viable. She thanked the Council for recognizing the agricultural community that is not just farmers, but all those who depend upon them for their quality of life.

Mr. Shope, Long Valley. Asked why the public comments were separate and not part of the minutes. He also asked if they could be sent to Trenton under cover letter. Mr. Weingart noted his request and said that this would be done.

There being no further comments from the public, the session concluded at 4:40 p.m.