

NEW JERSEY HIGHLANDS WATER PROTECTION  
AND PLANNING COUNCIL  
MINUTES OF THE MEETING OF JUNE 7, 2007

**PRESENT**

JOHN WEINGART	)	CHAIRMAN
KURT ALSTEDE	)	COUNCIL MEMBERS
ELIZABETH CALABRESE	)	
BILL COGGER	)	
TIM DILLINGHAM	)	
JANICE KOVACH	)	
DEBBIE PASQUARELLI	)	
JACK SCHRIER	)	
GLEN VETRANO	)	
TAHESHA WAY	)	
SCOTT WHITENACK	)	

**VIA TELECONFERENCE**

TRACY CARLUCCIO	)
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**ABSENT**

MIMI LETTS	)
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**CALL TO ORDER**

The Chairman of the Council, John Weingart, called the 49th meeting of the New Jersey Highlands Water Protection and Planning Council to order at 4 pm. Chairman Weingart welcomed new Council member Bill Cogger and congratulated Jack Schrier and Bill Cogger on their victory in Tuesday's primary.

**ROLL CALL**

The members of the Council introduced themselves. Tim Dillingham arrived.

**OPEN PUBLIC MEETINGS ACT**

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

**PLEDGE OF ALLEGIANCE** was then recited.

**CHAIRMAN'S REPORT**

Chairman Weingart announced for members of the public that there was information about the meeting on the table outside the meeting room. He also announced that there will be a Council meeting on June 14th at 3 pm to discuss several issues that will come up in today's meeting. The Chairman announced that Scott Whitenack would be joining the Natural Resources Committee.

## APPROVAL OF MINUTES OF MAY 10, 2007

Mr. Dillingham introduced a motion and Ms. Way seconded it. Bill Cogger, Janice Kovach and Tahesha Way abstained. The remaining members voted to accept the minutes. There was not an affirmative vote of 8 members as required. Mr. Schrier asked if a council member did not attend the meeting, but believed the minutes to be substantially correct, if that member could vote. Mr. Borden advised that, under the conditions described a member could vote. Bill Cogger voted to approve and the minutes were APPROVED.

## EXECUTIVE DIRECTOR'S REPORT

Eileen Swan reported that the major focus of the work for the last month has been the categorization of public comments and populating the database so that the staff and Council can begin the work of deciding how the comments influence the final plan. The staff is now in the process of consolidating the comments. The comments are up on Members Only website and it is a work in progress.

Other work has continued on:

- Setting up procedures for Wastewater Management Plan Amendments and Redevelopment site approvals
- TDR basis for allocation of credits is ongoing
- Contract work for data collection and analysis
- Grant applications and monitoring
- Prioritizing tasks for completion of final plan
- Information meetings with municipalities and counties.
- Ongoing coordination with other agencies

Ms. Swan thanked Debbie Lawlor who is leaving June 14th to return to the NJ Meadowlands Commission and also wanted to thank Bob Ceberio, Executive Director Meadowlands Commission, for loaning Debbie to the Council. She emphasized Debbie Lawlor's contribution to the draft plan and in working on the categorization of public comments.

Ms. Swan announced that, subject to Council approval, Paula Dees would be starting as her executive assistant on June 11th. Paula has worked in managing land acquisitions for Upper Raritan Watershed Association and NJ Water Supply Authority.

Regarding the public comments received on the draft master plan, acknowledgement letters have been sent to the Counties and municipalities. Staff is working on the letters to legislators and state agencies. Any emailed comments received an automatic email response. We received more than 3,000 individual comments and they have been categorized into 47 categories. Patty Sly assisted in a demonstration of how the comments would be accessed on the website. This posting would grant user friendly access to original comments and their categorization and had a search feature to assist users. If the Council Members approve, the comments could be posted next week.

Various Outreach Meetings have been held over the past month

- Highlands County Planners
- Meeting with Senator Littell at his request to discuss issues related to impact of the Highland Act and progress on the plan
- Holland Township, Teaneck Township in Bergen County, Washington Township Clinton Township
- NJDOT and NJ Transit
- Smart Growth Policy Team
- Assemblywoman Linda Greenstein, Susan Kraft, SADC and Debbie Mans from the Governor's office to discuss the proposed TDR expansion bill that will be heard in committee June 14th
- COAH Outreach
- EPA Wastewater Conference
- Lisa Jackson, DEP Commissioner, on various issues related to DEP
- OSG/DEP/NJDOT standards build out analysis
- NJDEP regarding Wastewater Management issues
- Hunterdon County Chamber of Commerce
- Raritan Highlands Compact
- SADC conference with Appraisers that Jeff LeJava attended with Eileen

Kurt Alstede arrived at the meeting.

Ms. Swan thanked the staff for their assistance and hard work going out to public meetings. She stressed that this is a valuable way to address the concerns of the municipalities and establish ongoing communication.

Chairman Weingart asked the Council members if they would approve posting the comments on the website and they all approved that action.

## COMMITTEE REPORTS

### Personnel Committee: Meeting of June 7<sup>th</sup>

- Discussed changes to by-laws and in accordance with the 10 day notice requirement said those proposed changes will be sent to members 10 days prior to the July 12th Council Meeting.
- New staff openings are posted on the website and advertised in the newspaper. Interviews will begin next week.
- Under the by-laws, there is a requirement for the Council to vote on new hires.

Mr. Schrier introduced a motion and Ms. Kovach seconded it to approve the hiring of Paula Dees. All those present voted in the affirmative, with the exception of one vote of abstention by Debbie Pasquarelli. The motion was APPROVED.

Glen Vetrano arrived at the meeting.

**Plan Development and Local Conformance Committee: Meeting of May 31<sup>st</sup>**

- Discussion was on three contracts:
  1. Contract with Integra Realty Resources for assistance in preparing TDR analysis
  2. Contract with USGS to support performance standards with respect to Water resource analysis
  3. Contract with Regional Planning firm
- Reviewed County data on development activity
- Discussed the public comments

**Budget & Finance Committee: Meeting of May 31<sup>st</sup>**

- The Committee report will be ready next week.
- Review of operating budget – on track
- Review of separate Regional Master Plan budget- on track and within budget. This budget needed to be reviewed as there are proposed contracts to be awarded relative to the RMP. Budget & Finance concluded that there were sufficient funds for all three proposed contracts.
- Fiscal Year '08 budget – State budget will be finalized at the end of this month and after the appropriation for the next fiscal year, the Committee will prepare new budgets.

**TDR Committee: Meeting of May 24<sup>th</sup>**

- Discussed allocation method which was then to be discussed by Plan Development Committee.
- Resolution for Council approval on proposed contract with Integra Realty Resources.
- Discussed proposed amendments to the State TDR Act
- Discussed amendment to State TDR Act Eileen and Jeff will report back
- TDR receiving zone feasibility grant program and municipal interest.
- Chairman Weingart asked if the application process was still open and it was made clear that municipalities may still apply for TDR grants.

**Natural Resource Committee: Meeting of May 31<sup>st</sup>**

- Discussed procedures for review of Wastewater Management Plans.
- Table attached to the Chair's report that lays out thresholds for different types of reviews.
- Discussed need to inform applicants when their plans are being discussed.
- Discussed exempt projects, consistency with DEP review and Highlands process and restrictions on land.

There were questions on the levels of review for Wastewater Management Plans. Mr. Dillingham, Ms. Swan and Mr. Balzano explained that there were three levels of review:

1. Most minor revisions consisting of correction of an existing facility with no re-review of environmental issues;

2. Next in complexity are **Site specific amendments** projects;
3. Most complex are the **Area wide amendments** projects that can be an entire town or multiple towns. .

The approach recommended is to have staff review minor revisions and modifications and involve the Council members in the more complex plans. Ms. Swan commented that there was a tremendous amount of staff time being devoted to these reviews. Mr. Balzano concurred and added that the focus was limited to those projects that have already been reviewed by DEP and deemed to be complete and ready to approve. He thanked the Natural Resources Committee for their assistance in reduction in the staff time required. The estimate for Area wide projects is 2 weeks and Site specific 2-5 days. Because of the time involved, establishing thresholds is very important.

Mr. Dillingham commented that there will be a greater responsibility to do reviews once the final plan is adopted. There was an additional discussion of a checklist that will aid in streamlining the process. Ms. Pasquarelli asked for clarification that this threshold approach was an interim process and it was made clear that the standard of review would change upon the adoption of the Regional Master Plan. . The response was that this was only while under draft plan.

Mr. Alstede commented that he did not believe the Council should be commenting on exempt projects as he did not believe that this was part of the legislative intent.

**Agriculture Committee** – The Committee did not meet but reviewed a grant application by phone and email exchange

- Reviewed application agricultural grant to Sussex County \$20,000 over 2 years for \$10,000 per year to create a producer driven and managed commercial processing kitchen under the Highlands Sustainable Agriculture Grant Program.

#### **CONSIDERATION OF RESOLUTION REGARDING APPROVAL OF GRANT TO SUSSEX COUNTY AGRICULTURAL DEVELOPMENT BOARD**

Mr. Alstede introduced the motion and Ms. Pasquarelli seconded it.

There was some clarification on the grant having to be given to a government entity and what other organizations were contributing and how much. Kim Kaiser reported that the Sussex County Technical School was donating the use of its kitchen for off peak hours, Sussex County CADB was contributing \$15,000 and the Sussex County Board of Agriculture was contributing \$5,000. The Highlands Council would be contributing about 1/3 of the total amount.

There was some additional clarification that there would be a cooperative group doing this project and it would be treated as a potential model to be used elsewhere. The results will be available to a wide range of interested parties.

There was no public comment and all members present voted yes with one abstention due to conflict by Council member Glen Vetrano. The motion was APPROVED.

## **CONSIDERATION OF RESOLUTION REGARDING CONTRACT WITH INTEGRA REALTY RESOURCES**

Mr. Whitenack introduced the motion and Ms. Kovach seconded. Jeff LeJava presented the elements of the contract for time and materials not to exceed \$35,000. Item #2 in the proposed contract is to assist the Council with a method to identify commercial market adjustment factors. There has been work in house on the residential factors, but this contract will enable an analysis of commercial factors to be developed and compare the residential factors including an examination of apartment vs. detached single family home and how they relate to establishing minimum credit value. Integra was the only firm that responded to the RFQ.

Chairman Weingart asked if there were any comments from the public.

### **PUBLIC COMMENT**

#### **Hank Klumpp, Tewksbury Township**

Mr. Klumpp asked if this was the same firm that did the educational programs for the TDR stakeholder meetings and it was confirmed. Mr. Klumpp commented that there were no answers available at the stakeholder meetings and Mr. LeJava answered that the stakeholder meetings were at the beginning of the process and now a process had been developed. Chairman Weingart commented that the staff was satisfied with this firm.

#### **Susan Buck, Oxford**

Ms. Buck commented that she did not think any more time should be spent until the build out analysis is completed for the receiving zones.

#### **David Shope, Long Valley**

Mr. Shope commented that it took 7-10 years to develop a TDR plan in the Pinelands and asked what the timeframe would be to implement a TDR plan in this region. Chairman Weingart answered that he did not know what the timeframe would be, but that the intent was to get TDR in place as soon as possible. Jeff LeJava commented that it could be at least 2-3 years. Ms. Swan also mentioned that the timeframe could change with the bill being proposed before an assembly committee on June 14th to amend the State TDR Act allowing receiving zones and impact fees statewide. There was additional discussion regarding the establishment of a TDR bank and that it needed to be funded. Mr. Shope stated that without a place for credits to go, the program would be difficult to implement. Chairman Weingart commented in closing that implementing TDR was an essential building block to implementing the overall program.

There was no further comment and all Council members present voted to APPROVE the motion.

Ms. Pasquarelli asked how the Council can reach a town, if it were contemplating a zoning change since municipal land use planning was a dynamic process, and how it can get that municipality involved in the process. Jeff LeJava answered that any Council member who was aware of a municipality that was considering becoming a receiving zone should let staff know. The TDR grant program allows a municipality to examine the feasibility of TDR. Ms. Swan also commented that staff is spreading the word about this grant program through

municipal outreach. Jeff LeJava is going to Long Hill Township at their request to make a presentation.

### **CONSIDERATION OF RESOLUTION REGARDING APPROVAL OF CONTRACT WITH USGS**

Mr. Dillingham introduced the motion and Ms. Way seconded it. Steve Balzano discussed the fact that this was an existing contract for ongoing technical assistance for:

- 1) technical support to respond to comments;
- 2) develop water resource for long range research agenda preparing for municipal conformance; and
- 3) to address out of scope items.

Council member Schrier pointed out that there was an issue with the phrasing in the Whereas clause in the resolution referring to USGS as a federal agency.

Chairman Weingart asked if there were any comments from the public.

#### **David Shope, Long Valley**

Mr. Shope commented that the nitrate standards have been established for years. Steve Balzano responded that the current nitrate standard is 5.2 mg/liter and the current rule proposal is 2 mg/liter. There is an obligation for the Highlands Council to establish an equivalent septic density for the Planning Area. Mr. Shope asked if the proposed standard of 2 mg/liter was for the Planning Area. Mr. Balzano answered that currently there is no recommended nitrate dilution for the Planning Area.

#### **Susan Buck, Oxford**

She believes that the USGS is doing a planning function.

#### **Andy Drysdale, Chester**

Mr. Drysdale commented that no one had determined the need for a nitrate dilution.

#### **Hank Klumpp, Tewksbury Township**

Mr. Klumpp asked if the DEP had imposed the 25 and 88 acre density because of nitrate. Chairman Weingart said that staff could discuss the nitrate issue after the meeting, but that it was not pertinent to the motion.

Chairman Weingart asked for a vote and all Council members present voted to APPROVE.

Chairman Weingart reviewed the Contract for Planning Consultant commenting that the deadline for submissions to the RFQ is today. To date, there have been 3 submissions and there will be a special meeting of the Council on June 14th at 3 pm. The only agenda item will be the discussion of a proposed contract for a Planning Consultant. He also said that the Plan Development Committee was comfortable in referring this matter to the full Council. Chairman Weingart emphasized to the public that much of the meeting on June 14<sup>th</sup> would be conducted in Executive Session since it would pertain to contractual matters.

## **CONSIDERATION OF RESOLUTION REGARDING APPROVAL OF CODE OF ETHICS**

Chairman Weingart commented that the Council asked staff to petition the State Ethics Commission for clarification on a recusal policy for Council members. Staff will review the response further, but the Council is required to adopt a Code of Ethics. By adopting the updated State Uniform Code of Ethics, the Council would be replacing the existing Code of Ethics. A motion was introduced for approval of the code of ethics and seconded.

Council member Alstede commented that the legislative intent was lost in this code of ethics and that every elected official could be affected in some way.

Mr. Borden clarified that the Council could adopt the updated Code of Ethics and amend it later if so desired. Ms. Swan commented that there was a process for amendment, not merely passing a resolution by Council.

There was additional discussion by Council members as to past issues with ethical concerns and how interpretation of the code could adversely impact the ability of certain council members to have input in their areas of expertise, as had been the case in agricultural issues. Mr. Borden commented that by not adopting this code of ethics the Council would be in violation of state law.

Chairman Weingart asked for public comment.

### **Monique Purcell, Department of Agriculture**

Ms. Purcell commented that the Department of Agriculture had received clarification on ethical concerns with respect to agriculture.

### **Susan Buck, Oxford**

Ms Buck asked if this was an excuse not to act.

### **Helen Heinreich, Professional Planner**

Suggested that there needed to be language seeking clarification. Mr. Borden noted that these were unrelated issues.

A roll call vote on adopting the code of ethics was called by Chairman Weingart.  
Weingart, aye; Alstede, nay; Calabrese, aye; by teleconference Carluccio, aye; Cogger, aye;  
Dillingham, aye; Kovach, aye; Pasquarelli, aye; Schrier, aye; Vetrano, aye; Way, aye;  
Whitenack, aye. The motion was APPROVED.

Chairman Weingart said the agenda was concluded and announced the next meetings:  
Thursday, June 14 at 3 pm

    Thursday, July 12 at 10 am

    Thursday, August 16 at 4 pm

He asked for any public comments.

## PUBLIC COMMENT

### **Julia Somers, New Jersey Highlands Coalition**

She commented that the Council should develop a position on the proposal to run new electric utility lines from Pennsylvania to New Jersey from new coal fired plants. There is no way these lines can cross New Jersey without crossing the Highlands.

### **Susan Buck, Oxford**

She expressed concern as to where the plan was going after spending \$10 million and a final plan was still not available. She asked that the Council be more forthcoming in discussing issues and asked why there was an additional \$250,000 being spent if the goals and objectives are not defined. She asked if there would be major revisions to the plan.

### **Marion Harris, Morris County Trust for Historic Preservation**

She asked in the checklist for Wastewater Management Plans why there was no provision to capture any cultural or scenic resource information. She suggested that if there were a question about cultural or scenic resources that information could be captured to keep the inventory up to date. She added that if the staff were concerned about staff time that she could make suggestions to help.

### **Candy Ashmun, resident of Highlands**

She has been involved in the environmental community through the State and Pinelands for 25 years. She supported the effort to reach out for planning assistance. She gave the effort a well done and commented that it was time to have someone support the staff to make a good plan.

### **David Shope, Long Valley**

Mr. Shope commented regarding the electric consumption in the Pennsylvania to New Jersey corridor saying that threatened species were not considered when the more economical way was to construct straight lines. He criticized the rate increases obtained by NJ American Water and asked why residents in the Highlands region did not participate. He believes the Highlands Act is unworkable.

### **Peter Gonzales, Bloomingdale, NJ**

He asked if the Highlands Council had put forth a resolution to support the renewal of the Garden State Preservation Trust. Chairman Weingart said yes and that he had testified in support of renewal.

### **Scott Olsen, Byram Township representing North Byram Concerned Citizens**

He advocated for adopting the MOU's with sister agencies to avoid litigation, otherwise resources are put at risk. He mentioned a meeting June 11th at 5 pm at the Byram Township office with NJDOT to design a charette to address the issue.

### **Hank Klumpp, Tewksbury Township**

He is pleased to see a new Executive Director Swan and Council member Cogger and recommends each new person read the comments by farmers in the past.

**Helen Heinrich Professional Planner**

She was asked to present information on successful cluster development while maintaining viable agriculture. She based her findings on the whole country and not from the NJ Farm Bureau or SADC. She commented that there were several good examples (5 in Washington Township and 1 in Chester) and recommended the Council take a field trip. She supported improving the MLUL with respect to concentrated development as well as farmland preservation in the conservation zone. Chairman Weingart thanked her.

**Andy Drysdale, Chester**

Mr. Drysdale feels trapped in the Preservation Area. He believes in preserving open space but considered the Act a result of extremism.

**Dave Peifer, ANJEC**

He followed up on the energy corridor and the impacts from outside the Highlands region, e.g. reactivation Stewart airport, I-78, Land Use NY State draining to Highlands, rail plans, pipelines, air traffic. He would like to hear the Council's thoughts.

Chairman Weingart commented in response to Sue Buck that there are no secrets and that each Council member has some changes that he/she would like to see implemented. We do not know yet.

There were no other public comments.

**ADJOURN**

Mr. Vetrano introduced a motion to adjourn the meeting and Ms. Pasquarelli seconded it. The meeting was adjourned at 5:50 pm.

**CERTIFICATION**

I certify that the foregoing is a true copy of the minutes of the meeting of the Highlands Water Protection and Planning Council.

**TRUE COPY**

Dated: 7/5/07

Paula M. Dees

Paula M. Dees, Executive Assistant

**PUBLIC COMMENTS SUBMITTED**

ANDREW DRYSDALE  
Land Surveyor  
32 East Fox Chase Road  
Chester, NJ, 07930  
Tel. 908-234-1079 Fax 908-234-1326

June 7, 2007

Highlands Council  
100 North Road  
Chester, NJ 07930

Good Afternoon,

My name is Andy Drysdale, my wife Lois and I live and own farmland at 32 East Fox Chase Road, Chester, NJ, we have been trapped in the "Preservation Area", since August of 2004, some of our land is now in the "Conservation Zone" of the Regional Master Plan. We, along with many others, are victims of Environmental Extremists who have led politicians, legislators and the NJDEP to do unnecessary things.

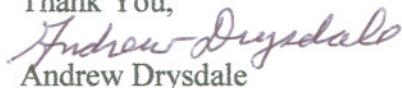
There is a statement that is often made. "We need to preserve open space". This statement invites the question, what is open space? Is it the open fields that were cleared by the back breaking toil and labor of the early settlers or is it the virgin forest that was here when they first arrived?

I believe it is the man made open fields and scenic vistas. Farmers have worked long hours for many years and maintained these open areas, in many cases their only financial reward of any consequence being the increase in the value of their land.

If you look at some of the residential developments that have been around for a few years you will see many many trees in areas that were once open fields. If you spend some time walking around in some of those developments you will also see some so called endangered species that are more plentiful than ever.

Another question that needs to be answered is. What is an Environmental Extremist? My answer to that is, it is someone who has an education that specialized in the environment and promotes environmental causes without regard to other important facts.

I saw a perfect example of this on the Weather Channel, in a program called Storm Stories; two biologists rode an ATV out though the dry grass in the Everglades, looking for some plant that they believed could harm that environment. At some point one of them looked back and realized that they were leaving a trail of fire behind them. Dry grass caught on their exhaust system had ignited. They abandoned their ATV and were soon trapped by the fire. Fortunately they were rescued by helicopter. Twelve thousand acres burned!

Thank You,  
  
Andrew Drysdale

## **FARMLAND PRESERVATION DEVELOPMENT – AN ESSENTIAL TOOL FOR THE HIGHLANDS**

**Helen H. Heinrich PP CLA  
June 7, 2007**

## FARMLAND PRESERVATION DEVELOPMENT- AN ESSENTIAL TOOL FOR THE HIGHLANDS

Helen H. Heinrich PP CLA  
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**Introduction:** Maintenance of value in their land and the ability to tap into equity built up over many years is of critical importance to most farmland owners. Research shows that in N.J. 82% of the land value is produced by the development value, the highest percentage in the U.S (Plantinga, 2002). The value of the land has historically has served as savings bank, health insurance, estate tax insurance, retirement income, and emergency fund for N.J. farm families. This means that the immediate loss of the development potential of farmland in the Highlands Preservation Area, and possibly in the rest of the Highlands as time goes on, is a severe economic blow and threat to sustaining agriculture in the region. The draft Highlands Regional Master Plan therefore appropriately includes policies to support three tools frequently used to help preserve this critical equity: farmland preservation development easement purchase, Transfer of Development Rights, and cluster or conservation development. The fact that a reliable source of funding for easement purchase is not in place as of this date and the Highlands TDR program still under development makes cluster development the only equity protection tool available.

This tool familiar to all land use planners as an important component in their planning toolkit is not a new concept. One has only to fly over the countryside in the British Isles, Germany, Austria or Italy to see the long-established patterns of settlement clustered densely in one location surrounded by fields and forests. It therefore has a long and apparently successful history as an organizational scheme that served the needs of rural populations in the past and today as well.

Early settlements in the United States along the Eastern seaboard were clustered behind stockades to protect the residents from attacks of Indians or wild animals. In New England during "a brief but vigorous period of commercial prosperity during the early federal period" (Wood quoted in Jackson 1984 189) after there was less risk from these threats, the Puritan founders clustered residential development around a green upon which was located the church and meeting house. In the seventeenth century "each qualified inhabitant ...was granted, in addition to a home lot in the village itself, a portion of meadow, a portion of land for tillage, and a woodlot." (Jackson, 44). This clustered pattern remains in the New England landscape today and exists in the more rural parts of New Jersey as well. As Meinig notes, it has come to be a symbol of "the best we have known of an intimate, family-centered, Godfearing, morally conscious, industrious, thrifty, democratic *community*"(165).

Today clustered, concentrated development, also known as "open space design", "conservation development" or "farmland preservation design", is advocated by the N.J. State Development and Redevelopment Plan as Smart Growth, a way to reduce State investments in infrastructure. It is promoted by planners as a method to manage and accommodate limited growth while preserving large, contiguous tracts of farmland or environmentally sensitive open space.

"conservation development design", often a more acceptable term for "cluster development". Furthermore, nonprofits with expertise in planning such as the American Planning Association, the American Farmland Trust, and the Delaware Valley Regional Planning Commission are actively working to educate and guide local communities in the development and exercise of this land use tool.

In all cases it has been presented as valuable strategy to use in protecting land values and land equity for those landowners that might otherwise be caught in large-lot downzoning and overnight significant loss of their land equity. Therefore it is an essential component in the Highlands Regional Master Plan (RMP), a plan that must find a way to provide the "fair compensation" statutorily required for affected landowners within the Region.

**Purpose of this white paper:** The Highlands RMP draft of 11 30 06 contained a policy for the Conservation Zone that mandated a clustered form of development, "open space design", for any "development other than agricultural development ..." (125). Despite the justification for this concept presented by the Highlands Council staff in numerous Council and committee meetings, some on the Council and many interested groups have questioned the usefulness of this concept that could be applied in both Preservation and Planning Area towns mapped into the Conservation Zone as they undergo the process to conform to the RMP.

A Highlands Council member asked if there was any information about the use of this method in NJ, neighboring states, and around the country to assist the Council in considering the wording in the draft RMP. Doubt about whether this planning tool had been used "successfully" anywhere was expressed along with the fear that using it would lead to more development than many would hope to see in the Conservation Zone. This paper therefore will provide this information and examine this concern and others as well.

This paper is offered in order to provide the Highlands Council with a wealth of background information to use as it discusses the efficacy of farmland preservation development for Highlands applications and makes a reasoned decision about its place in the RMP. A fundamental premise is assumed: that Council holds a vision of continuing, productive, viable, dynamic agriculture as described in the Highlands Act. The 109,681 acres or almost 13 percent of the land in the Region represent a major land use that was deemed by the Legislature to be worthy of support and promotion.

**What is meant by an farmland preservation development, by a "successful farmland preservation development"?** For this paper "open space design" shall mean "farmland preservation development"- concentrating nonagricultural development on a small part of a farm while permanently preserving the rest for agricultural use at no cost to the state or the municipality. The major purpose of the examples to follow was to maintain and enhance profitable agriculture, even though some parts of the preserved ground may have also been reserved for open space compatible with the agricultural operation.

A "successful farmland preservation development" shall mean one that is not only enabled through planning but also constructed, deed-restricting the set-aside land upon which the agricultural use continues over time. It goes beyond the mere presence of "clustering" or "open lands ratio" options included in a municipality's land development ordinance. Maintaining an active viable farm operation on the set-aside land is also required for "success".

**Why is provision for farmland preservation development necessary in and beneficial for the Highlands?** It would serve the goals of the Highlands Act in two significant ways:

1. It is an effective way to protect the water resources, to manage stormwater, often more effectively, research shows, than conventional large lot development.

A 2006 study by the US EPA, Protecting Water Resources with Higher-Density Development describes research that shows how more dense development can be more beneficial to water quality than large lot, low density development. Water quality impacts are contained and managed instead of being spread over a greater portion of a watershed. Less stormwater per housing unit is generated by the most dense design (1). Low-density development "can, in fact, harm water quality"(7).

The report summarizes similar research in Oregon, Washington, Florida, South Carolina, and Illinois. It concludes that "any bias toward either (low or high density development) is inappropriate from a water perspective". A combination of development densities together with farmland and open space preservation is a "superior approach" (33).

2. It is an essential tool to protect all active farmland in the Highlands from being destroyed piecemeal, one large residential lot at a time.

The justification for including this tool given by the Highlands Council staff was to protect the Conservation Zone, where agriculture is to be the preferred land use, from rampant large-lot zoning that is so destructive to farm viability. Exemptions 1 and 2 in the Act encourage present landowners to construct a single-family dwelling on a lot that they own. Septic density standards in the NJDEP Highlands rules require very large lot sizes for any development: 25 acres for nonforested land, 88 acres for forested land. These two provisions could result in widespread residential development on the best agricultural land all over the Highlands – in other words, very large-lot sprawl.

Furthermore, because only the current landowners can make use of these exemptions, it could lead to very rapid use of them early on, at a time when municipalities are dealing with the multiple requirements of RMP conformance or, in the case of the Planning Area municipalities, the question whether or not to opt in. For farmers, an invasion of nonfarm landowners at a time when they are

attempting to adjust their operations to the reduced land values caused by being included in the Highlands doubly increases the difficulty and stress of that process. And it would reduce the ability of the Highlands TDR program to create sending zones where all development is curtailed to be transferred to areas appropriate to receive it.

Allowing only this large-lot development, as some would suggest, may be protective of some of the Highlands resources, but it would make sustaining and enhancing the agricultural industry very difficult if not impossible. The US Department of Agriculture, the American Farmland Trust, N.J. Future and others working to preserve farmland point out that this eats up productive farmland in very large bites, spreading scattered residential development amongst actively farmed properties. There is no provision that these new landowners must continue to actively farm the land or have it farmed by others, unless keeping Farmland Assessment taxation is a goal. Even remaining under Farmland Assessment may be less important if taxes are reduced because the RMP has removed most of the development value from the property

These large-lot landowners may make this land available to farmers, but this can discourage actions to protect soil and water resources or to farm more profitably. Currently, for example, renting ground from nonfarmers is a key factor in the ability of grain farmers to maintain the viability of their operations. But they have no control over the land since the owners can dictate crops, cropping methods, and even methods of pest, disease, and wildlife control. Ownership may change, bringing with it new restrictions and requirements. There is little incentive to install Best Management Practices for soil and water conservation to protect the land, and long-term but more profitable crops such as organic produce, perennial pasture, tree or berry fruit are impossible to consider.

This would perpetuate the low level of farming intensity and profitability documented in the RMP and by many farmland owners at Council meetings. Encouraging only large-lot development therefore is a major threat to the viability and sustainability of Highlands farms. It could be "death by 10,000 cuts".

### **Why is farmland preservation development a benefit to productive agriculture?**

Countless programs to enhance agricultural viability across the country have recommended more use of growth management techniques including farmland preservation development (Burlington County 2004, 214-225). Examination of policies supporting agricultural viability in states such as California, Florida, New Hampshire, Pennsylvania, and Vermont revealed that either cluster or TDR as growth management tools were a major element in all of them. Some of the reasons that this form of development can work to preserve agriculture are:

1. It is a tool to manage rural growth in a way that is less threatening to the agricultural industry and destructive of the character and culture of the community.
2. It preserves farmland and open space at no cost to the public, since the development value is achieved through development of the concentrated

development. The Highlands needs this tool critically because there will never be enough public dollars to provide the "fair compensation" to Highlands landowners promised by the Highlands Act.

3. It could be a method to reserve the most productive land for agriculture, relegating development to more marginal parts of the farm.
4. It could preserve larger tracts of contiguous farmland especially if the municipality also encourages density transfer – moving the development potential of several farms to one with the most appropriate conditions for concentrated development.
5. It records and preserves some of the equity a landowner has built up on his property, even if the option to develop is never exercised. The potential remains and must be factored into real estate and land conservation appraisals.
6. It provides a way to build housing for employees –interns learning how to farm organically on an organic farm, for example.
7. It can provide housing for family members not involved in the agricultural operation, keeping them close to the farm to provide emergency help with agricultural production and possibly to supply future generations to take over farm management.
8. It could help municipalities and the Highlands Council meet their continuing constitutional obligation to "provide a variety and choice of housing" at affordable prices for the citizens of NJ.

**Where has farmland preservation development been "successfully" implemented?** As stated above, in parts of the US where agricultural viability is of concern, this form of development has been recommended and incorporated into the development ordinances of countless towns.

In **Vermont**, for example, farmland preservation and production of affordable rural housing have been the dual goals of their land conservation program since its founding in 1987. Typically, each project preserving farmland results in land being reserved for future housing development and often other types of community projects. 25 projects have successfully combined preservation of open space and farmland and creation of affordable housing. Land trusts and other state agencies have been partners in this effort that as of October 2006 has preserved 363,250A of land and created 8,350 entry level homes (Briechele, 2007, 36-39). According to Pam Boyd (2007), of the Vermont Housing and Conservation Board, farming is continuing on these farms where appropriate, supported by municipalities and the State. Some noteworthy examples include:

Craftsbury:	Brassnocker Farm
Monkton:	Last Resort Farm
Hartland:	Cobb Hill Farm

Newbury:                   Gray Farm

By 1992 a number of "green development" projects were completed in rural **Maine** and **Massachusetts**, according to Mainewatch (1992). For five of the examples, agricultural land was conserved while limited development was allowed. Agricultural production continues, ranging from haying, apple orchards, to dairy operations.

Ashfield, MA:	Loomis Farm
Brunswick, ME:	Larrabee Farm
Sedgwick, ME:	Caterpillar Hill
Topsham, ME:	Cider Run Farm

Even New Hampshire has at least one built example to report, the Mill Road project in Brentwood (Taylor, 2000).

Planner Randall Arendt has described examples of what he terms "conservation zoning" in his various publications (Arendt, 1997, 1999). The following examples of farmland preservation development in **Pennsylvania** were described in detail in his publications and have been the site of numerous visits by both professional and municipal planners from New Jersey to see for themselves how this planning technique works.

#### **Bucks County:**

Buckingham Twp:	Canterbury;
	Indian Walk
Lower Makefield:	Farmview

#### **Chester County:**

Elverson:	Summerfield
Kennett Twp:	The Ponds at Woodward

In his book Growing Greener, Arendt (1999) cites examples in other states where the preserved land is to remain in active agriculture including:

Carbondale, CO:	The Ranch at Foaring Fork
Grayslake, IL:	Prairie Crossing
York, ME:	The Meadows at Dolly Gordon Brook
Lake Elmo, MN:	The Fields of St. Croix
Stanardsville, VA:	Farmcolony

**Are there any "successful" examples reported for New Jersey?** Planners in New Jersey including Elizabeth McKenzie and John Madden, Ben Spinelli, Executive Director

of the Office of Smart Growth, and personal research have identified the following farmland preservation developments:

**Hunterdon County:**

Readington:	Lazy Brook
	Hedgerow Estates
	Spring Meadows
	Holland Brook
Pittstown:	Shy Creek – Rt 513
Union:	Union Square

**Mercer County:**

Hopewell:	Mixner Farm
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**Morris County:**

Chester Township:	Chesterfields
Harding Township:	Hartley Farms
Washington Twp:	Bluecrest
	Claremont Valley
	Hilltop Meadow
	Merton House Farms
	Messina Farm
	Perine/Ciznrae Farm
	Washington Manor

**Somerset County:**

Hillsborough Twp:	Hillsborough Chase
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**Sussex County:**

Fredon Twp:	Windy Brow Meadows
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The following N.J. communities are known to have adopted ordinance provisions that enable farmland preservation development for the purpose of equity protection, but none apparently have been built as of this date:

**Hunterdon County:**

Delaware Township  
East Amwell Township

**Ocean Co:**

Plumsted Township

**Warren Co:**

Knowlton Township

**What impediments to farmland preservation development have become apparent in New Jersey?**

Planners report that there are many instances where N.J. statutes and regulations work against more widespread use of farmland preservation developments. This list demonstrates the changes to statutes, rules and policies that must be made before the tool is truly feasible and useful statewide. In many cases the Highlands Council could take the lead in making these changes for the benefit of not only communities and landowners in the Conservation Zone but also in rural municipalities all over New Jersey. Suggestions for action are presented in italics.

1. The Municipal Land Use Law makes residential clustering possible usually within the framework of a general development plan (NJAC 40:55D-39 b, c (2), (4), (5) ). Section c. (2) requires that "any common open space ... be set aside for the use and benefit of the owners or residents in such development" typically dedicated to the municipality or to a homeowners' association. This would prevent the farmland owner from remaining on the farm and continuing the farm operation. Municipalities have proven to be reluctant to accept the liability and maintenance costs of more open space. Homeowners' associations are not appropriate for the small scale development envisioned on farmland preservation developments.

*A separate MLUL provision for conservation development or open space design is needed.*

2. Lot-size averaging is not well known and understood as a better alternative to the general development plan since it would enable the farm landowner to remain and continue to farm the largest lot remaining.

*The MLUL needs a definition of lot-size averaging and inclusion of it as a potential zoning tool.*

3. The Residential Site Improvement Standards (NJAC 5:21 1-et.seq.) for streets and parking are not appropriate for a rural cluster whether on farmland or not. Waivers or approval of Special Area Standards must be obtained from the RSIS Review Board.

*A generic set of Rural Area Standards must be developed. The Highlands Council working with the NJ Department of Agriculture could find the resources to accomplish this task.*

4. Environmental restrictions or requirement of additional expensive environmental studies on more marginal lands may force the residential development on the best farmland. There must be flexibility as to siting and lot size and configuration to make farmland preservation developments possible while protecting both prime farmland and the most important environmental resources.

*Waivers or exemptions should be permitted so that marginal land and woodlands could be used instead of prime farmland.*

5. There is no provision for community wastewater treatment for any type of clusters in most municipal wastewater management plans. While clusters are possible served by individual septic systems, the required large lots destroy the purpose of the farmland preservation development by using up a large amount of the best farmland. They also make a village or hamlet design impossible. If these systems must be added as amendments to the local wastewater management plan, this increases costs and delay. They must be encouraged by both municipality and the N.J. DEP since there are dozens of well-functioning examples in this state alone.

*Both the Highlands Council and the State Planning Commission should take the lead in helping N.J. DEP streamline the review and approval of these systems to make them preferable in many environmentally sensitive areas to septic systems.*

6. The zoning potential for farmland preservation or conservation development must be reflected in the appraisals for farmland preservation easement purchase and TDR credit allocations or the tool is worthless as an equity protector.

*The Highlands Council must work with Green Acres and the SADC to develop recommendations for appraisal methodology that recognize that the use of this zoning tool was for the purpose of protecting land values for their inclusion in conservation appraisals.*

7. Most cluster ordinances assume the farmer is selling out. They must permit the current farm operator to continue farming, protected by buffers and Right to Farm including continual notification of residents that the community supports farming.

*The Highlands Council has the opportunity while working with municipalities in the Conservation Zone to educate and convince local officials and residents that farming is to be a permanent land use that the municipality has a mandate to protect.*

8. Towns have made villages "historic" with the intention of preventing intrusion by development that is out of context. This prevents agricultural development clusters from being attached in an appropriate way, despite the fact that they could be designed to be indistinguishable from the historic small-scale land use pattern.

*The Highlands Council can show examples of successful historic infill to encourage municipalities to follow the examples of communities in Vermont, Charleston SC and Savannah, GA.*

9. Most cluster ordinances do not allow for partial development of a cluster plan. Requiring full development at one point in time creates more development than the farmer wants or the town can support. Farmland owners should not have to give up the right to develop just because they do not desire to do so in the beginning, or give up all their equity if they just want to tap into one or two lots in the cluster.

*The Highlands Council must encourage municipalities to follow the example of some in N.J. that borrow some aspects of the General Development Plan in their approvals of a farmland preservation development. They must be encouraged to resist the temptation to extort more permanent land preservation without compensation in return for approval of only a small part of the farmland preservation development plan.*

### **What does the public say about encouraging farmland preservation or conservation developments in their communities?**

There are many reasons the town residents say they do not want clustering. It is important to know their perceptions if any progress is to be made in encouraging the use of farmland preservation or other conservation development projects.

Besides being expressed at many township meetings, concerns about conservation development have been heard during State Plan Cross Acceptance hearings for the various iterations of the State Development and Redevelopment Plan. The standards for new village and hamlet centers in the State Plan were developed to enable more dense rural development such as farmland preservation developments, but at a scale that would blend into the existing community character.

The residents of some rural counties seem unable to envision new growth that is in context with the existing community, growth that could solve water pollution concerns, provide the variety and choice of housing the NJ Constitution requires, and still be unrecognizable as newer than the historic settlement. In the Office of Smart Growth's compilation of changes suggested by counties for the 3<sup>rd</sup> version of the State Development and Redevelopment Plan (SDRP) (2005), some counties opined that "not all PA 4, 4B, and 5 communities are suited for the creation of new Centers or significant expansion of existing Centers. Excessive growth and the creation of numerous Centers

have the potential to fragment natural resources, agricultural lands and other features of these Planning Areas "(89,90).

Also expressed was the view that the State Plan should acknowledge that "existing hamlets, villages and towns do not necessarily have to accommodate new growth. Most of these communities do not have the infrastructure to support additional growth. Furthermore, new development threatens the historical integrity of these places "(91).

Again, one county believes that "the State should reconsider the concept of transferring regional growth into centers in Planning Area 4 and 5. The center concept is inappropriate in these areas" (92).

In comments from the "Listening to NJ" public hearing held in Somerville in September, 1996 in connection for the 2001 State Plan, the public aired their perceptions and doubts about clusters (Heinrich 1996):

1. Clustering is just a device for the developer to save money, produce a cheaper product.
2. Environmental impacts would be intensified, not reduced.
3. Package wastewater treatment plants are a Trojan Horse for the developer. Once one is approved and built, it is too easy to upgrade and expand, developing the set-aside farmland or open space.
4. The municipality will have to maintain the community open space at taxpayers' expense.
5. Allowing clustering attracts developers, puts more development pressure on a town that does not want to grow much.
6. No limit on number of clusters means wider spread sprawl.
7. Cluster development needs special infrastructure that is costly to town, county or developer. Passing the cost on to new residents leads to very large houses that change community character.
8. Allowing smaller lots brings smaller, cheaper housing and residents of a different economic level than present residents.

These perceptions have been changed by tours to existing conservation development communities in the region or by knowledge of a wealth of research documenting the successful use of the tool.

Another objection to enabling farmland preservation developments on farmland voiced by some in the public and some Highlands Council members is that "every farmer all over town will want to develop, so you'll have sprawl in the form of dense clusters". This is unlikely for the following reasons:

1. The experience of the NJ Department of Agriculture and NJ Farm Bureau has been to see farmers accept the cluster provisions as a way to lock in their equity when large-lot zoning threatens their land values and equity. When they try to develop only a few houses in order to tap that equity, the wording of the ordinance and the MLUL prevent this. Most do not welcome development even in the form of clustering and would prefer to transfer all the density to one farm more remotely located from the main body of active farmland.

Hillsborough Chase is a good example of this. Development potential from 5 farms was combined on only 1, leaving the others preserved from development.

2. Judging from testimony in recent court cases, towns have created many ways to limit both the size and numbers of cluster developments:
  - Requiring first a design of conventional subdivision conforming to all municipal and DEP regulations without need for variances or waivers (to establish density).
  - Only permitting cluster on larger farms (40A in Readington, 100A in Knowlton).
  - Requiring relatively large lot size for parcels in the cluster.
  - Requiring the preserved farmland to be a large percent of the gross tract area.
  - Requiring the preserved farmland to be large percent of the tract area unconstrained by wetlands, floodplains, steep slopes, easements, and right-of-way areas.
  - Permitting only septic wastewater treatment.
  - Limiting Floor Area Ratios or impervious cover.
  - Using large, suburban-style bulk density standards (setbacks etc).
  - Limiting placement of any stormwater facilities away from the best farmland.
  - Limiting lot coverage: excluding all critical areas from the actual developable portion or requiring a minimum circle of buildable land.
  - Requiring large buffers between the active farmland and the residences and expensive fencing or replanting of vegetation.

- Requiring the full Residential Site Improvement Standards instead of petitioning for ones more appropriate for a rural area.
- Creating historic districts as restricted and inclusive as possible to make attaching a new cluster more difficult, time-consuming and expensive.

The net result is that usually few properties within the community would actually be eligible to apply for and win approval for any form of cluster, not every parcel of farmland as some seem to envision. The benefit of the farmland preservation design as a fair way to compensate those who would otherwise bear the burden of land use for all citizens is often thwarted by overly aggressive use of these strategies. These planning tools need to be examined to see how they could be carefully designed to encourage the kind of farmland preservation development s that fit into the community landscape.

Another objection voiced by many is that clusters spoil the character of the rural landscape because they are too typically "suburban" in design. This is a function of municipal standards. Often the required lot sizes are so large that they are not perceived to be a farmland preservation development at all. This can be solved by flexibility in siting the development on the property, by allowing small lot sizes, and by encouraging layout patterns and architectural details that may duplicate those of the nearest village, hamlet, or crossroad.

Allowing, even encouraging onsite community wastewater facilities is necessary if lot sizes small enough to be recognized as a cluster, a new village or hamlet, are to result. These can be clustered septic or small treatment plants that are being built in NJ, approved by the DEP, and maintained without municipal expense by established public or private utilities. A tour of the Internet searching for "onsite wastewater treatment" reveals that dozens of states including VA, WVA, TN, IA, Vt to name a few, are smoothing the regulatory way for this technology even for cities and suburbs and making serious efforts to educate the public about the potentials of this new wastewater technology.

Even septic wastewater treatment can be clustered with one facility serving a number of residences. Researchers at Delaware Valley College, Doylestown, PA, in conjunction with the PA Department of Environmental Protection have been testing various types of such systems (1999). An farmland preservation development model ordinance developed by Professional Planner James Miller contains a list of some of the currently available clustered septic systems (1998).

Fears that housing on smaller lots will bring down the property values of nearby developments and residences appears to be refuted by new research from Wayne State University (Mohamed, 2007). Contrary to popular perceptions, this study shows that conservation subdivisions can achieve price premiums and sell more quickly than conventional subdivisions.

**What is needed to make farmland preservation developments more beneficial to long-term viability of agriculture?** Adopting an enabling ordinance and building

some farmland preservation developments is a good first step but experience shows that long-term viability of the active farm operation within the farmland preservation developments requires additional planning measures. The Highlands Council is in the position of requiring or encouraging these measures while working with Conservation Zone towns.

1. Continuing to have the Right to Farm is fundamental to viability of the associate farm operation. The municipality must, in the ordinance, require notice on the deeds of all new homes in the development that this farm operator has a Right to Farm subject to the conditions outlined in 4:1C 1-11. Homeowners should be informed that they must go to the County Agriculture Development Board for information about that farm operation or to file a complaint against it.
2. A mutual statement of rights could be developed that lists the rights of the new homeowners to enjoyment of their property subject to the understanding that they are moving next to a working farm. This could be tailored to the site conditions of the development that might affect nonfarmer access, health and safety or aesthetic effects.
3. Buffer standards and design are critical and should depend upon the site conditions, not some rigid formula
4. Some municipalities distribute a Countryside Code to educate all residents that this is a community that intends to support and promote the agricultural industry (Upper Freehold. No Date).

The County Agriculture Development Boards (CADB) can be a resource since one of their mandated tasks is to:

"At the request of a municipality, require that any person proposing any nonagricultural development in an agricultural development area prepare and submit a statement as to the potential impact the proposed development would have on agricultural activities in the area" (NJSA 4:1C-15 g.).

This provides an opportunity for the State Agriculture Development Committee working with the CADBs to develop model ordinances and checklists for municipalities to use in planning the farmland preservation developments and ensuring their long-term viability.

### **Summary**

Planning for Highlands water protection along with another Highlands Act goal – maintaining and enhancing the agricultural industry - gives the Highlands Council an opportunity to set a creative example of how these goals can be met. This would be useful to the whole state as well as rural areas all over the US.

Using conservation development in the form of farmland preservation developments is the only one available for use at present of the three major tools that the Council has to

provide the "fair compensation" to Highlands landowners, also statutorily required. Farmland preservation by development easement purchase and Transfer of Development Rights are also to be used, but the former depends upon an adequate continuing source of funding. The latter, the most complex TDR program ever attempted, will take time to develop and prove its effectiveness.

Farmland preservation developments are permitted by the N.J. Municipal Land Use Act now and encouraged by the NJ State Development and Redevelopment Plan. The tool has been tested in various New Jersey communities. The Highlands Council could organize a tour of neighboring Washington Township to see examples of how the strategy can be made to control growth, maintain community character, and support active agriculture. The Highlands Council as well as the State Planning Commission will have many opportunities to work with Conservation Zone communities either in the process of opting into the Regional Master Plan or through the State Plan's Plan Endorsement process, providing them basic information, good models, and encouragement to plan proactively for future growth.

Where these developments are located and their character will depend upon many local factors to be discussed on a community-by-community basis. The courts have declared that a municipality may not indicate on its zoning map locations where only the conservation development may occur or it becomes a TDR program governed by the TDR Act. But the number and location of this inevitable growth can be influenced by creative planning of these new developments.

Research shows that farmers prefer to continue their agricultural operations so long as they can support their family doing so. Farmland preservation development could relieve their anxiety about loss of their financial safety net and, combined with other visible signs of economic and regulatory support, move Highlands agriculture to a more viable, profitable level.

## REFERENCES CONSULTED

- American Farmland Trust. 2006. Planning for Agriculture. Webpage:  
[www.farmland.org/services](http://www.farmland.org/services).
- \_\_\_\_\_. 1998. Farms for the Future: A Strategic Approach to Saving Maryland's Farmland and Rural Resources. American Farmland Trust: Northampton, MA.
- \_\_\_\_\_. 1990. Saving the Farm – A Handbook for Conservation Agricultural Land. AFT Western Office: San Francisco.
- Arendt, R. with E. Brabec, H. Dodson, C. Reid, and R. Yaro. 1994. Rural By Design. American Planning Association: Chicago. [www.planning.org](http://www.planning.org).
- \_\_\_\_\_. 1997. Growing Greener: A Conservation Planning workbook for Municipal Officials in Pennsylvania. Natural Lands Trust: Media, PA.
- \_\_\_\_\_. 1999. Growing Greener: Putting Conservation into Local Plans and Ordinances. Natural Lands Trust: Media, PA.
- Boyd, Pam 2006. Personal Communication.
- Briechle, K. J. 2007. 2 for the price of 1. Planning January, 2007. American Planning Association. P. 36-39.
- Burlington County Office of Economic Development and Regional Planning. 2004. Agriculture in Burlington County's Route 206 Farm Belt – Current Industry Status and Trends. Mount Holly NJ. Pp. 214-222.
- Campoli, J., E. Humstone, and A. MacLean. Above and Beyond – Visualizing Change in Small Towns and Rural Areas. 2002. American Planning Association: Chicago.
- Delaware Valley Regional Planning Commission. No date. Conservation Design. PowerPoint presentation.
- Heimlich, R.E. and W.D. Anderson. Development at the Urban Fringe and Beyond – Impacts on Agriculture and Rural Land. U.S. Department of Agriculture Economic Research Service Agricultural Economic Report # 803. Government Printing Office: Washington D.C.
- Heinrich, H. 1996. Notes on the State Plan Hearing in Somerville.
- Hepner, L. and G.E. Obleski. 1999. Working with Nature. New Wastewater Technologies for Pennsylvania. On-lot systems and Small Flows. Delaware Valley College: Doylestown, PA.

- Heyer, Fred. 1990. Preserving Rural Character. PAS report # 429. American Planning Association: Chicago, IL.
- Jackson, J.B. 1984. Discovering the Vernacular Landscape. Yale University Press: New Haven, CT.
- Meinig, D.W. 1979. Symbolic Landscapes – Some Idealizations of American Communities. In The Interpretation of Ordinary Landscapes – Geographical Essays. D.W. Meinig, Edit. 1979. Oxford University Press: New York. P. 164-192.
- Miller, J. PP. 1998. Farmland Preservation Alternatives for East Amwell. Moorestown, NJ.
- McMahon, E. 2004. Better Models for Development in Delaware. The Conservation Fund: Arlington, VA.
- Mohamed, Rayman. 2007. The Economics of Conservation Subdivisions: Price Premiums, Improvement Costs, and Absorption Rates. Urban Affairs Review (41 (3): pp 376-399.
- N.J. Future. 2004. Smart Conservation for Towns. Issue 7. N.J. Future: Trenton.
- N.J. Highlands Water Protection and Planning Council. 2006. Regional Master Plan.
- N.J. Office of Smart Growth. 2005. Cross Acceptance Changes Proposed by Counties to the State Plan of Statewide or Regional Relevance.
- N.J.S.A. 4:1C-1-11. The Agriculture Retention and Development Act.
- N.J. State Planning Commission. 2001. The New Jersey State Development and Redevelopment Plan.
- Plantinga, A. R. Lubowski and R. Stavins. 2002. The Effects of Potential Land Development on Agricultural Land Prices. John F. Kennedy School of Government, Harvard University, Faculty Research Working Papers RWP02-012.
- Rudderow, Kay. 2003. Hopewell Plowing into Development. NJ.com. 12-29-03.
- Stokes, S.N., A.E. Watson, G.P. Keller, J. T. Keller. 1989. Saving America's Countryside – A Guide to Rural Conservation. National Trust for Historic Preservation. Johns Hopkins University Press: Baltimore.
- Taylor, D.T. 2000. Open Spaces for New Hampshire – A Toolbook of Techniques for the New Millennium. NJ Wildlife Trust: Manchester, NJ.
- The Mainewatch Institute. 1992. Green Development: Balancing Development with Conservation.

Upper Freehold N.J. Township Committee. No Date. "Country Code Policy Statement.

U.S. Environmental Protection Agency. 2006. Protecting Water Resources with Higher-Density Development. Publication # 231-R-06-001. US EPA: Washington, DC.

Yaro, R.D., R.G. Arendt, H.L. Dodson and E.A. Brabec. 1988. Dealing With Change in the Connecticut River Valley: A Design Manual for Conservation and Development. Lincoln Land Use Institute of Land Policy and the Environmental Law Foundation: Cambridge.

## EXHIBITS

Burlington County Office of Economic Development and Regional Planning. 2004.  
Agriculture in Burlington County's Route 206 Farm Belt – Current Industry Status and Trends. Mount Holly NJ. Pp. 214-222.

Heimlich, R.E. and W.D. Anderson. Development at the Urban Fringe and Beyond – Impacts on Agriculture and Rural Land. U.S. Department of Agriculture Economic Research Service Agricultural Economic Report # 803. Government Printing Office: Washington D.C.

N.J. Future. 2004. Smart Conservation for Towns. Issue 7. N.J. Future: Trenton.

N.J. State Planning Commission. 2001. The New Jersey State Development and Redevelopment Plan.

Upper Freehold N.J. Township Committee. No Date. "Country Code Policy Statement."

U.S. Environmental Protection Agency. 2006. Protecting Water Resources with Higher-Density Development. Publication # 231-R-06-001. US EPA: Washington, DC.



# **Agriculture in Burlington County's Route 206 Farm Belt**

***Current Industry Status and Trends***

**A Report Submitted to the Burlington County Office of  
Economic Development and Regional Planning**

by the

Heinrich-Schilling Joint Venture

December 2004

In New Jersey, high farmland values – as noted previously in this report, Plantinga et. al. (2002) estimated that 82 percent of New Jersey's farmland value is created by the development option - create significant financial incentive for farmland sale and increase operating costs. This finding alone creates extra urgency to identify for ways to strengthen agricultural viability in this state and the Farm Belt. It also demonstrates the striking differences in local contexts for agriculture. For example, on average, only 9 percent of U.S. farmland value stems from the development option. Even in neighboring states the portion of farmland value derived from the development option is markedly lower (i.e., 18 percent in New York and 24 percent in Pennsylvania).

Few studies in the U.S. actually attempt to define "agricultural viability." Most often, studies cite a series of policies and strategies that, if implemented and achieved, will result in greater farm viability. Brief reviews of a number of such studies illustrate this point.

### **6.3.1 Hillsborough County, Florida**

Studies in Hillsborough County indicate that there are two primary types of agriculture in the County, both providing benefits to the public at large (Evans and McGuire, 1996; Hillsborough Agricultural Task Force, 1997). These are:

- High-intensity fruits and vegetables: benefits to the local economies.
- Low intensity cattle ranches: rural landscape character, open space.

While the county has an urban growth boundary, the zoning outside is what some would consider an invitation to growth: 1 unit per 6 acres. According to county leaders, keeping land values high makes it possible for farmers to be more profitable, find capital to invest in expansions of their operations.

Expanding economic activities, not the land base, is the focus of Hillsborough's agricultural retention strategies. Helping farmers create more profit and profit opportunities is working to prevent sales of farmland and fragmentation of the agricultural land base. Especially important is maintenance of an accepting, conducive atmosphere for agriculture as a key economic sector made up of independently owned businesses, land parcels, and industrial operations. A county agricultural economic development specialist is charged with making this happen.

Some of the specific strategies employed in the county include:

- Expanding current business opportunities and markets.
- Creating new business opportunities and markets.
- Pursuing land use policies that help agriculture co-exist with urban/suburban areas.

### **6.3.2 Miami-Dade County, Florida**

The purpose of the Miami-Dade County Agricultural Land Retention Study is to retain agriculture and rural land in Miami-Dade County through the enhancement of the economic

viability of commercial agriculture (Freilich et al., 2002; Holland et al., 2002). It analyzes data regarding the long-term economic outlook of the agricultural industry and makes recommendations to enhance the industry's economic well being. It states as a basic premise that "any findings or resulting ordinances shall not have an adverse effect on the value or use of property in the study area."

Issues addressed in the study include:

- Theft and vandalism.
- Farm labor.
- Crop insurance.
- Marketing – market research, direct sales, Internet marketing, ethnic marketing.
- Agritourism.
- Infrastructure needs.
- Urbanization and land values.

Agricultural economic development strategies at the local level are designed to strengthen competitiveness of agriculture in the region. Among the aspects considered are:

- Production methods
  - Low input farming (i.e., organic).
  - Precision agriculture.
  - Value added activities.
  - Product labeling.
- New and expanded markets
  - Farmers' markets.
  - Community supported agriculture.
  - On-site retail and pick-your-owns.
  - Local merchant contracts.
  - Sales to public sector.
  - Mobile retail and home delivery.
  - Mail/Internet specialty sales.
- Supportive uses and activities
  - Encourage symbiotic relationships between farm service businesses and farm producers.
  - Allow such activities to locate near farms; change zoning, eliminate restrictions.
  - Encourage supply of farm employee housing.
- Farm financing
  - Inclusion of loans to farms in all state funding programs.
- Land use: zoning and subdivision amendments
  - Adopt concerted growth management program to minimize land fragmentation, intrusion of non-compatible non-agricultural uses, and minimize infrastructure investments that encourage non-farm uses.
  - Mandate inclusive zoning in residential and mixed-use developments to create attainable housing for farm employees near agricultural operations.
  - Use of TDR.
  - Create an Agricultural Support Commercial zone.

- Modest performance standards for value added, direct marketing, tourism and other accessory uses.
- Support for agricultural research and development activities, at state and county levels.
- Promotion of county agriculture through a long-term marketing campaign.

### **6.3.3 The Land Agency Formation Commission (California)**

California's Land Agency Formation Commission was set up by statute in 1971 to coordinate land use decisions statewide<sup>43</sup>. Each of the state's 58 counties has such a local commission, each with the power to "consider the effects of any proposal on existing agricultural lands", guiding development to vacant urban land. They review proposal for boundary changes from individual landowners, developers or cities.

### **6.3.4 Monterey County, California**

Monterey County is known for its innovative agricultural viability program that includes:

- Streamlined permitting for agricultural operations.
- Strengthened Right to Farm ordinances.
- Land use policies that allow cluster development on farms to keep protected farmland economically competitive.

Agricultural zoning is considered only a short-term solution. Allowing some growth in patterns that do not threaten the economic viability of farm operations is viewed as far more effective in the short and long run. County officials believe that they should "stop asking farmers to do more and more for the public without compensation, recognition or regulatory incentives" (Berton, 2003, p. 16).

### **6.3.5 Santa Clara County, California**

Santa Clara County Land Agency Commission conducted a study examining the need for balancing planned growth and agricultural viability.<sup>44</sup> The purpose of the study was to "identify ways to ensure the long-term maintenance of agriculture as a viable land use in the area south and east of Gilroy." This area was designated in the County General Plan for "large scale agriculture" and has long been identified as an "agricultural preserve".

The study noted that recommendations to enhance agricultural viability must be accompanied by attention to the city's potential growth. Strategies recommended regarding growth included:

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<sup>43</sup> For more information, see, <http://www.calafco.org/>.

<sup>44</sup> For more information, see [www.santaclara.lafco.ca.gov](http://www.santaclara.lafco.ca.gov).

- Making the 20-year growth boundary more permanent by clarifying its objectives to minimize infrastructure development.
- Maintaining the productivity and economic viability of agricultural lands by minimizing urban encroachment into agricultural areas.
- Promoting Gilroy's agricultural heritage by supporting the continuation of active agricultural production along the city's eastern border.
- Better coordinating county and city policies on planning for future urban development, county review of large-scale projects in the agricultural areas.

Findings and strategies to support agricultural viability in the Large Scale Agriculture area included:

- Increase economic competitiveness by allowing appropriate "vertical integration" activities. County regulation is "overly lengthy, imposing, cumbersome and expensive." Review and amendments are needed.
- Continue to support and encourage Williamson Act contracts (20 year easement agreements).
- Allow supplement farm income through home occupation activities.
- Acquire open space easements on farms.
- Identify the regulatory and tax burdens and forward findings to the appropriate levels of government that could act to lower them.
- Promote marketing of local agricultural products.
- Support affordable farm worker housing by county and city development of permanent and seasonal housing.
- Support agricultural water conservation and reasonable water rates.

### **6.3.6 Ventura County, California**

A Ventura County study focused on the economics of the industry in the region as well as issues related to the impacts of development on nearby farms (Brand, undated; Ventura County Planning Department, undated). Among the study's recommendations were:

- Buffers between agricultural and residential uses.
- New urban growth directed toward cities, minimizing conversion of agricultural land.
- Development impact fees paid into a fund for conservation easements.
- Compact growth patterns to maintain a surplus in tax revenue by allowing modest growth through infill and minimal conversion of agricultural land.

### **6.3.7 Maryland's Metropolitan Fringe**

A study in Maryland, *Cultivating Agriculture: A Report of Current Trends and Future Viability of Farming in Maryland's Metropolitan Fringe*, stated that agriculture is changing and recognized that there is:

- Increased value of production per acre and ratio of labor to output.
- Decreased capital and purchased inputs/dollar of output.
- A shift from field and livestock crops to specialty or niche crops with different infrastructure needs.

- More contract and direct marketing.
- A growing incidence of younger farmers working more hours off the farm (Scarfo, 1990).

Key issue areas identified include:

- Preserving farmland
  - Realize equity in ways other than PDR or TDR.
  - Financial planning blending tax benefits, charitable gifts, estate taxes, and conservation easements.
- Preserving farming
  - Make every farmable parcel of land available to active farmers especially entry-level farmers.
  - Market analysis – identify new markets.
  - Pro-agriculture policy development.
  - Use of parks for farming.
- Land use planning
  - Use greenways as buffers.
  - Create transitional zones with smaller farms between residential land use and larger, more industrial farms.
  - Establish statewide subdivision guidelines to retain prime farmland.
- Data collection
  - Integrate all data among all levels of decision-making.
  - Extend existing data to map resources.
- Education of farm community.
  - Research and outreach programs to generate new farm practices, marketing knowledge.
  - Construct on existing farms demos of ecological farming practices.

### **6.3.8 Connecticut River Valley, Massachusetts**

In *Growing Together: A Strategic Plan for Integrating Agriculture and Growth Management in the Connecticut River Valley of Massachusetts*, a key issue identified was loss of farmland due to low density sprawl of residential and commercial development (American Farmland Trust et al., 2001). The strategic plan has several categories of recommendations that need implementation at the state, regional and local levels:

- Economic development
  - Technical assistance, agricultural business support center.
  - Business training for farmers.
  - Credit for beginning farmers, entrepreneurs.
  - Business retention efforts for agricultural as well as other businesses and industries.
  - Regional agritourism campaign promoting local farms.
  - Reducing regulatory burdens to promote farm viability. Examples included: adopting Right to Farm and "rural life" ordinances, permitting agriculture in more than one zoning district (even if industrial), reducing permits and fees for farms that grow and process their own products, encouraging and rewarding institutional procurement of locally grown farm products.

- Tax policy at all levels of government
  - Creating special incentives to encourage farm viability and reducing tax burdens of farms.
- Land Use
  - Distinct master plan section devoted to agriculture: inventory of resources, farm issues, special planning and zoning, regulatory strategies.
  - Integration of farms, forests, other natural-resource-based land uses and food systems uses.
  - Local agricultural advisory committees with environmental, business and consumer representatives, as well as farmers.
  - Funding benefits and incentives for municipalities that address agricultural concerns in planning and policy.
  - Adopting TDR bylaws, discourage residential sprawl into farmland.
  - Enable "agricultural incentive areas" – tax incentives
  - Designate the Connecticut River Valley an Area of Critical Agricultural Concern
- Public Awareness and Education
  - Increase public awareness of agricultural production – buy local.
  - Increase knowledge of connection between food and farming.
  - Cost of Community Services studies to demonstrate fiscal benefits of retention of farmland and farming.
  - Educate economic development professionals at all government-levels.
  - Educate local officials about benefits and realities of agriculture.
  - Educate non-farm owners of farmland about alternatives to development such as leasing to active farmers, sale of development easements.

### **6.3.9 New Hampshire**

In 2000, the New Hampshire Coalition for Sustaining Agriculture, in partnership with New Hampshire Cooperative Extension, the New Hampshire Office of State Planning, and others published a workbook on *Preserving Rural Character Through Agriculture: A Resource Kit for Planners* (N.H. Office of State Planning, 2000).

The premise is that the rural character of New Hampshire is best maintained by the retention of historic agricultural land uses by keeping farmers profitable and viable. Profitable farmers can keep their farm and woodlands undeveloped and productive.

The toolkit advises that local planning and regulation can create negative or positive consequences from the standpoint of retention of the agricultural land base. Some strategies noted include:

- Clear inclusion of production agriculture in the master plan goals and objectives.
- Removal of impediments to agricultural activity and change.
- Priority to agricultural land use over others.
- Creation of a "Farm Friendly" environment in zoning, exemptions from site plan review, and greater flexibility to enable innovative farmland uses.

There must be an established "Right to Farm Principle" that requires effective buffers on adjacent non-farm land uses, informs all residents, old as well as new, of support for the

right to farm, and teaches non-farm residents that there is no presumption that farm activities are nuisances.

The kit also contains checklist – *Is Your Town Farm Friendly?* - as an evaluation tool. The checklist is included as Appendix K of this report.

### **6.3.10 New York – State Level Efforts**

In 2001 Governor George Pataki of New York led a statewide effort to improve coordination between state and local government. Agriculture, which covers 25 percent of the state's land base, was the focus of a separate section in the report that accompanied the effort.

The report, *State and Local Governments Partnering for a Better New York*, advises communities to plan for agriculture. It argues that farmland is not vacant land and action to enhance agricultural viability and preserve farmland is needed. It also states that good planning should concentrate growth where services can be provided and that communities need to have a vision for agriculture similar to the vision they might develop for Main Street revitalization.

The report contains a number of practical recommendations, and offers incentives to start-up farmers and those who lease land.

- More funding for the Agricultural Environmental Management program that helps farmers develop and implement Environmental Management Plans to manage nutrients and improve water quality.
- Extended tax credits to start-up farmers and tenants, relief from the 2-year wait for tax benefits and the immediate \$10,000 income requirement.
- Creation of a Farmland Restoration Tax Credit program.
- Expansion of the 1999 Farm Viability Program to increase the effectiveness of viability planning on both the community and individual farm levels and provide implementation grants.

The following county programs in New York grew out of this statewide initiative.

In 2002, the Ontario County Agricultural Enhancement Board reported that the following issues were impacting the viability of farming in the county:

- Workforce Development – finding and retaining both migrant and permanent employees was a problem. Immigration laws limit the numbers of potential seasonal workers and training of non-dairy permanent workers is very limited in New York and the Northeast in general
- Profitability was lower because of unfavorable milk prices and continually rising local property and school taxes.
- Agribusiness support continues to dwindle, weakening agricultural viability.

There was consideration of a change to larger lot zoning (1 unit/4 acres) but it was viewed as possibly counter-productive, since it could:

- Increase the rate of farmland conversion without impacting retention of farmland.
- Alienate farmers, could turn them against other beneficial agricultural programs and policies (i.e., farmland preservation).

Among the key recommendations were:

- Make the Agricultural Retention and Expansion Plan a top priority
  - Assess existing agriculture.
  - Identify key marketing partners, develop marketing plan.
  - Develop pilot program streamlining fast track agricultural business development.
  - Integrate agriculture future into other county plans.
- Establish an Agricultural Business Park
- Promote education and training
  - Land use tools to support agriculture.
  - Meetings with local leaders to discuss agriculture's needs
  - Public outreach and public relations – bridge disconnects between the public and agriculture. Keep public informed about agriculture's industrial nature.
- Monitor local economic development
- Promote regulatory and policy actions favorable to farming
  - Education and training for municipal officials.
  - Farm business ombudsman.
  - Workshops with farmers and municipal officials together.
  - Meet with Department of Transportation and State Police to enlist their aid.
  - Outreach to realtors to prevent conflict, increase awareness of right to farm.
- Support farm business development
  - Provide entrepreneurship and on-farm skills building.
  - Increase access to capital.
  - Support agricultural leadership development.
  - Support farm-friendly land use policy and programs.

Saratoga County uses the structure of its Agricultural Protection District as the base of its agricultural retention strategy (Bertone, 2003). Those farmland owners that voluntarily agree not to develop their property for 10 years receive reduced tax assessment, right to farm and other benefits statewide. A District Agricultural Advisory committee oversees county economic development programs, public education, and encouragement to municipalities to adopt farm-friendly regulations including equitable growth management with cluster development.

This county shares an Agricultural Economic Development specialist with an adjoining county to promote farming and create innovative economic development opportunities for its farmers.

### **6.3.11 Chester County, Pennsylvania**

A Chester County study, *Saving the Farm, Saving the Farmer: Securing a Future for Agriculture in Chester County*, states that current programs, policies, and legislation are not providing the flexibility to accommodate an evolving agricultural industry (Bazan, Keen and Mohr, 2002). Key issues include:

- Global competition
- Inequitable price supports
- Regulation and prohibitions
- Low social status
- Disappearance of farm support businesses and services
- Increasingly crowded rural roads
- Low credit availability
- Shortage of responsible farm labor

Categories of strategies include:

- Economic and environmental considerations
  - Farming is a "bundle of business units" – help development of value-added products and niche markets.
  - Business assistance with a sustainability screen – environmental considerations before funding.
- Marketing
  - Research consumers' needs and connect demand with appropriate producers.
  - Establish an organic growers cooperative with a special label.
  - Explore value-added markets for food, biofuels, etc.
  - Create a website of retail opportunities for the public.
- Education of farmers, the public, the food industry
- Financing
  - Statewide initiative to connect farm capital needs with other small business funding programs. Add sustainability incentive component to all business loans.
  - Create an agricultural enterprise zone, adding expert business assistance and capital infusion for new and innovative farming operations, diversification, and expansion.
- Municipal government opportunities (planning, zoning, other regulation)
  - Use concepts of village extension and in-fill to protect undeveloped land.
  - Support growth management, multi-municipal planning, and agricultural zoning including TDRs, enforcement of RTF laws, agricultural security areas.
  - Extend revitalization policies into rural communities.
  - Require buffers of developers to protect right to farm.

### **6.3.12 Vermont**

The Northeast Vermont Economic Development Association serves as both a regional planning commission and a regional development corporation. It serves 55 towns in 3 counties with staff to provide a variety of services for farmers in the region:

- Assistance with the regulatory process.
- Zoning and municipal planning expertise.
- Revolving loan funds, business incubators, six industrial parks.
- GIS and demographic information.
- Farm transfer planning.

All of this is accomplished through a special Small Business Development Center and staff to build and use working relationships with all levels of government. They also help to sustain farmers' markets and organize farm tours to bring the public and the farm community closer together.<sup>45</sup>

## 6.4 Agricultural Viability – Perspectives from Outside the U.S.

Lessons on agricultural viability in the Farm Belt can also be informed by examining efforts beyond U.S. borders. A brief review of activities in Australia and Europe is provided to gain an international perspective on the issue.

In Australia, the LandCare Australia begins with a focus on agricultural environmental sustainability (National Landcare Program, 2004). LandCare Australia is a network of hands-on conservation groups organized with the full participation of local farmers. It began with informal discussions among farmers and conservationists. Now there are about 4,000 local groups working on practical environmental projects most of which seem to be located on private land. The groups serve a social purpose as well, bringing farmers and environmentalists, often at opposite poles of an issue, to work together.

Furthermore, belonging to the program serves an economic purpose because farmer members can label their farms and products to show that they adhere to high environmental standards, selling at a premium price. About 40 percent of Australia's farmers (who collectively manage 60 percent of the country's land and 70 percent of its water diversions) are in LandCare groups, according to the group's CEO, though many believe the group is "a bit too green." One strategy of the program is to encourage farmers to plant trees to take up carbon.

Paid staff acts as local coordinators for the groups. Funding comes from bipartisan support in the Legislature, the National Heritage Trust, and corporate sponsorships. A LandCare logo on products informs consumers about how they can support these local efforts; with each sale a donation goes to LandCare.

A recent study about housing policy in rural areas in several European countries shows that they, too, are dealing with the problem of too much non-farm residential development pressure and focusing on what government should do to protect agricultural viability. The actions taken and effectiveness depend upon the culture of each country and each one's long history of government agricultural policy.

<sup>45</sup> For more information, see <http://www.nvda.net>.

United States  
Department of  
Agriculture



Economic  
Research  
Service

Agricultural  
Economic  
Report  
Number 803



ERSAER803



# Development at the Urban Fringe and Beyond

Comments submitted at Highlands Council  
Meeting of June 7, 2007 by Helen Heinrich.  
Page 32 of 43

## Impacts on Agriculture and Rural Land

Ralph E. Heimlich  
William D. Anderson



purchases of higher quality services is not clear. Ladd (1994, p. 661) concludes that they do not:

"Higher growth-related per capita spending primarily reflects the combined effects of greater density and increased local spending shares. In sum, established residents in fast-growing areas may experience declines in service quality, as well as rising local tax burdens."

As described above, low-density development results in greater public capital and operating costs for local roads, schools, and utility infrastructure (Windsor 1979, RERC 1974). At typical urban-suburban densities, per capita infrastructure costs fall as densities rise. At very low densities, the use of septic systems, open drainage, and unpaved rural streets without curbs and sidewalks may result in low costs, but the equally low quality of such services becomes evident as development increases and these services prove inadequate.

## Impacts on Landscape, Open Space, and Sense of Community

Growth involves more than traffic congestion, infrastructure costs, and altered public finances. It alters the landscape, the natural environment, and other factors important to quality of life. For example, low-density development consumes open space in the surrounding countryside, so residents who once had pleasant views of nature now have views of other suburban houses and shopping centers. In some cases, growth can destroy the very scenic amenities that once attracted people. This section draws, in part, on the comments of local government and business representatives from eight nonmetropolitan counties experiencing growth over the last two decades (Reeder et al., 2000).

**Community Spaces**—The loss of open space can stymie local recreation and cultural activities. For example, a publicly used lake or beach may become fenced off private property. A place known for hunting or fishing may be closed off to public access. Many communities use undeveloped lands for public activities, such as county fairs and other local festivals. Other such open spaces may be the sites of historic events, such as civil war battlegrounds. The pressure of development can consume these sites and, in the process, obliterate local historical landmarks.

**Retail Relocation**—The relocation of key retail businesses and services (such as the post office) to open

space on the periphery can drain the vitality of the town's center, or create center-less communities. Retail restructuring has negative effects on some downtown businesses, while creating congestion problems in the fringe. For example, Tim Sheldon, of the Economic Development Council of Mason County, Washington (near Seattle), noted that "Wal-Mart and other national chains had moved into the fringe area of new development, emptying the county's downtown area, where small businesses were hurting" (Reeder et al., 2000). However, over time many town centers in growing communities eventually redevelop with tourist and specialty shops. Brenda Johnson, with the Gilmer County Chamber of Commerce (north of Atlanta, Georgia) said "Gilmer's new Wal-Mart in a strip mall on the fringe was causing incredible congestion at the existing intersection; and the new retail on the fringe of town had killed a few downtown stores, but the county's downtown area had become a thriving tourist and specialty shop area with smalltown charm."

**Sense of Community**—In extreme cases, development can make it difficult to tell where one town ends and another begins. When town boundaries are obscured, the sense of community, which is important in generating civic pride, volunteerism, and support for local public services and community activities, may be diminished. The sense of community may also be impaired when developments are not open to the public. Gated communities are often developed at low densities, and may be well-planned and provide some of their own infrastructure and services. However, these communities often differ in demographic characteristics from the outside community, typically wall out their neighbors, and often think and act as if they are a community in themselves. This can create a significant divide with the surrounding town on public policy issues such as schools and economic development.

## Environmental Changes

Growth poses numerous environmental challenges. Because the environment is linked to other aspects of society, such as public health and the economy, environmental implications from growth can have various adverse impacts on local communities and require many and diverse policies to prevent or mitigate these impacts (table 2).

**Land Use and Soil Quality**—Studies of land consumption associated with low-density growth show that greater land consumption stems from three characteristics:

- low density of settlement;
- unlimited outward extension of growth;
- “leapfrog” or fragmented development pattern (Axelrad, 1998).

Low-density development results in a greater loss of agricultural lands than more compact development. However, studies have shown that, nationwide, the amount of prime and class I-IV cropland lost in urbanizing areas was proportional to the amount of those soils found in the area (Heimlich and Bills, 1997; Heimlich and Krupa, 1994; Vesterby and Krupa, 1993; Vesterby et al., 1994). Low-density patterns of development result in a greater loss of sensitive environmental lands, including wetlands, flood plains, critical habitat, aquifer recharge areas, stream corridors, and steep slopes.

Better planned, more compact settlement patterns can often avoid converting such lands, incorporating them into open space and environmental protection zones. Studies by Burchell (1992-97) and Landis (1995), summarized in Axelrad (1998), estimated such land consumption savings (figure 16).

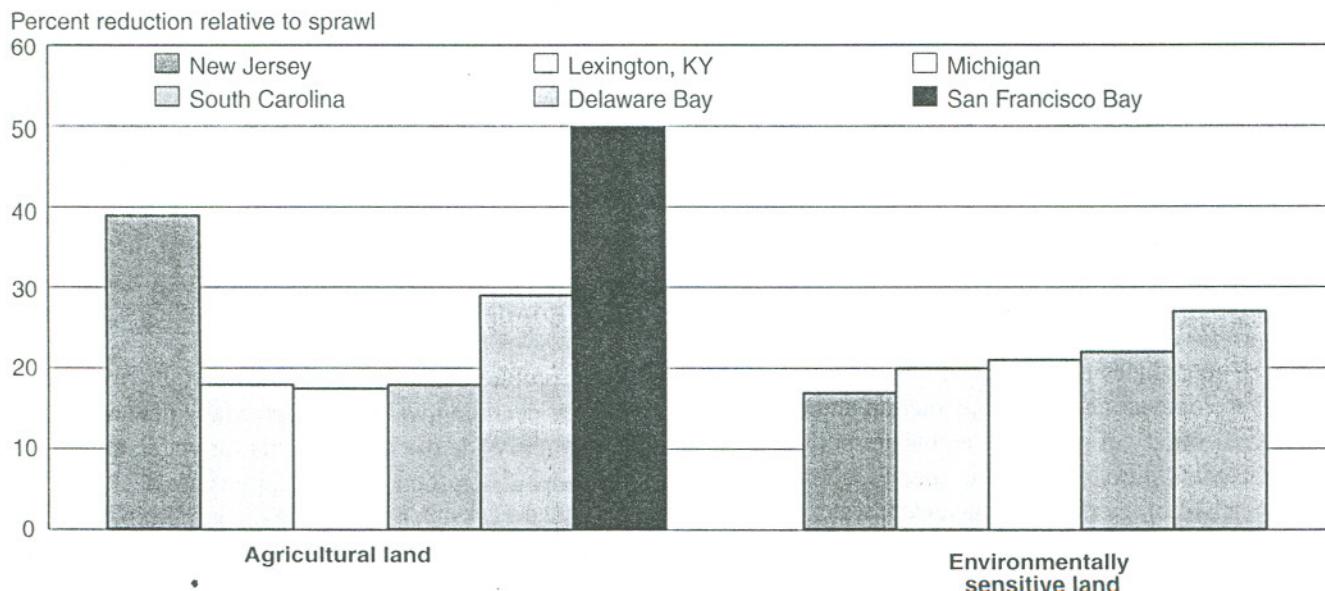
**Wildlife Habitat**—Development disturbs, pollutes, and destroys the natural habitats for various native species when it consumes wetlands, forests, alpine, and desert terrain. Insecticides and fertilizers used on lawns can

have significant negative effects on wildlife. In some cases, Federal or State governments will cause communities to restrict development and related activities to protect wildlife. For example, Bob Fink, of Mason County’s planning office, noted that “because of a new series of endangered species announcements covering several species of fish, his county may change its development regulations.” However, not all wildlife effects are bad. For example, some types of developments provide protected green space or parkland that creates mini-ecosystems where habitat-generalist species and those that can fly between fragments can flourish (Lovejoy et al., 1984; Whitcomb et al., 1981).

Growth seriously fragments wildlife habitats. Habitat fragmentation is often singled out as a principal threat to the preservation of biodiversity (Harris and Gallagher 1989; Wilcox and Murphy 1985; Noss and Cooperrider 1994). The negative effects of fragmentation on biodiversity are numerous, and can be grouped into four major categories:

- Reduction in total habitat area. Habitat remnants support fewer species and smaller populations of the same species than larger swaths;
- Loss of wide-ranging, low-density, and habitat-specialist species. Mountain lions, which have ranges that can exceed 1,000 square kilometers (Hemker et al. 1984) are now extinct in a recently isolated habitat

Figure 16  
**Savings of agricultural and environmentally sensitive lands, compact growth versus "sprawl"**



Sources: Studies reported in Axelrad, 1998.



# Smart Conservation for Towns

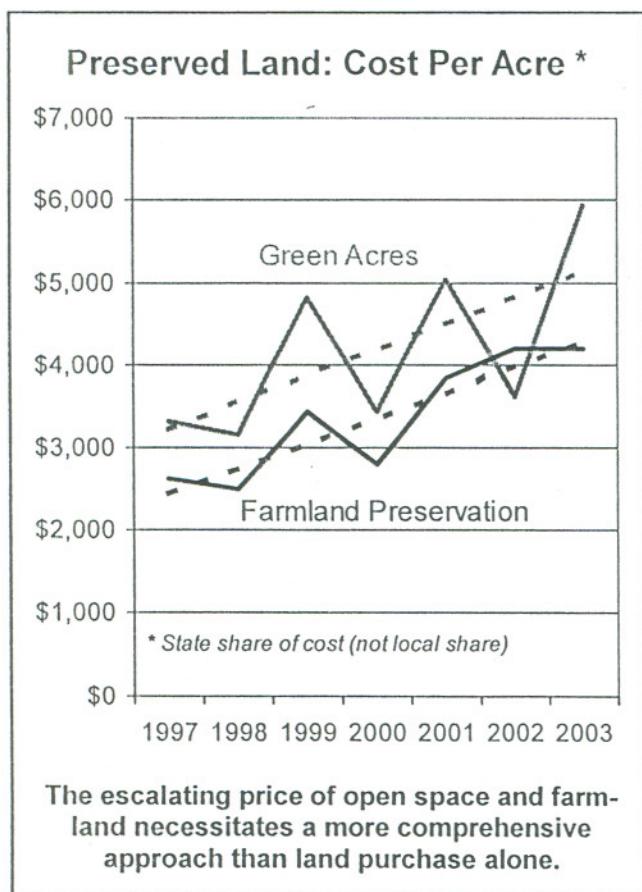
## Smart Growth Recommendations from New Jersey Future

Issue 7 • Revised September 2004

### Why Towns Need Smart Conservation

New Jersey ranks as a national leader in land conservation. In round numbers, a quarter of our state is publicly owned or deed-restricted parkland or farmland. And each year, hundreds of millions of dollars are raised by the state, all 21 counties and almost 200 municipalities to preserve additional land.

Yet suburban development spreads further into the open countryside every day, threatening the water supply, fragmenting woodlands and wildlife habitats and “checkerboarding” farming areas. As the supply of open land shrinks, government and conservancy buyers see themselves in a race with developers for critical sites. This means sharply rising land prices, as shown below.



Public and private dollars – for the purchase of land or development restrictions – are indispensable for conservation. But experience has made it clear that when it comes to conserving resources, farmland and parks – we can't buy our way out of sprawl.

Under New Jersey's home rule tradition, municipalities control most land-use decisions through their planning and zoning powers. Yet many planning decisions are made late at night, without adequate expertise, data or regard for regional concerns. And most land-acquisition efforts are motivated by a “NIMBY” reaction to proposed development. How can municipalities become more effective and efficient at protecting land and creating parks? And how can they provide their citizens a “bigger bang for their buck”?

The term Smart Conservation refers to a tested approach that offers towns a way to step out of “the race for open space” and gain firmer control over their future. As the “green” side of smart growth, Smart Conservation aims to create an interconnected regional web of healthy recreation areas, ecosystems, wildlife habitats, water supplies and agriculture.

### Recommendations in Brief

Smart Conservation offers municipalities a powerful approach to land conservation that integrates fundamental land use tools: planning, regulation, and spending on open space and infrastructure. Smart Conservation also calls for supportive linkages between state and local government. Specifically, towns deploying Smart Conservation will:

1. Start with a master plan, based on research, that identifies areas for growth and for conservation, to protect natural resource lands and farmland.
2. Regulate aggressively and effectively to implement the master plan vision.
3. Focus land acquisition funds on critical properties through strategic purchases.
4. Leverage conservation efforts by coordinating with other levels of government and private organizations.

For details, see page 4.

## Resources for Using the Smart Conservation Approach

### Websites

Start with these comprehensive “umbrella” sites:

- [www.smartgrowthgateway.org](http://www.smartgrowthgateway.org) from New Jersey Future provides details on smart growth strategies, technical and financial assistance, even model conservation ordinances.
- [www.anjec.org](http://www.anjec.org) from the Association of New Jersey Environmental Commissions also provides advice on land conservation as well as links to many nonprofit conservation organizations.

### Land Conservation Organizations

Local and statewide land trusts, watershed organizations and nonprofit planning groups have expertise in land conservation and many are committed to assisting local governments. Contact them using either website above for help in preparing master plans and open space plans and to partner in negotiating and financing land acquisitions.

### Written materials

- Among the many useful publications on local land conservation are two new books from the Environmental Law Institute: *Nature-Friendly Ordinances*, and *Open Ground; Effective Local Strategies for Protecting Natural Resources*, available at [www.eli.org](http://www.eli.org).

- Interested in more information on land conservation in New Jersey and nationwide? Read New Jersey Future's report, *Smart Conservation: The “Green” Side of Smart Growth*, on our website at [www.njfuture.org](http://www.njfuture.org). Included are policies and recommendations to implement Smart Conservation at the state level.

### GIS Mapping Tools

The natural systems that underlie conservation planning – watersheds, wildlife habitat and farming regions – usually do not relate to political boundaries. Powerful graphic information systems (GIS) tools can enable you to incorporate a scientifically-based regional perspective into your land-use planning. Consider:

- Garden State Greenways, New Jersey's upcoming online planning tool for those involved in conserving open space, farmland, and historic preservation – from local to statewide levels. Garden State Greenways will help government agencies and private groups identify lands for preservation in New Jersey by combining data in a whole new approach. The site launches in September 2004 at [www.njconservation.org](http://www.njconservation.org).
- The GIS Center, a project of the Stony Brook Millstone Watershed Association, which assists government and nonprofits with GIS and related technologies. Visit its website at [www.giscenter.org](http://www.giscenter.org).

## Can Land Be Conserved Through Dense Development?

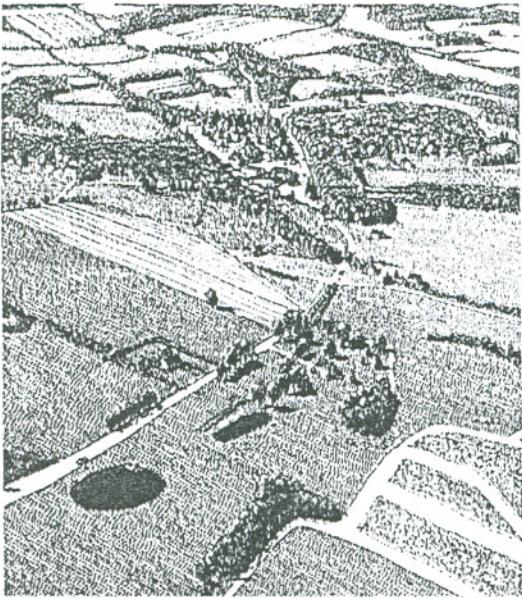
Yes! Allowing denser development helps preserve land, at little or no public cost, provided it is linked to land preservation through a “flexibility provision.” Consider the following examples:

- **Clustering.** Plumsted Township is drafting a mandatory “Conservation Design” ordinance that will require a minimum of 50 percent permanently preserved, undivided open space/agricultural land. Developers are required to work with the Planning Board in identifying where development will be clustered and land protected based on a master plan map of preservation areas and growth areas.
- **Clustering Paired with Incentive Zoning.** Upper Freehold Township rewards landowners who enter 75 percent of their acreage into the Farmland Preservation Program by increasing

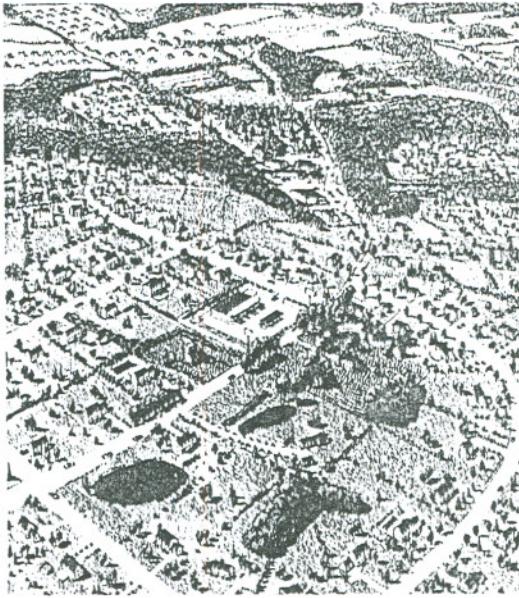
the number of buildable lots on the remaining portion by 35 percent. The resulting density is more than it otherwise would have been, but only one quarter of the site is developed.

- **Clustering on non-contiguous lots.** Among the tools used by Plainsboro Township to preserve 50 percent of its land is an “Internal Zone Clustering Ordinance.” This regulation allows development rights to be transferred between non-contiguous properties, if at least 75 percent of the total area is preserved as open space.
- **Transfer of Development Rights (TDR).** Chesterfield Township is poised to preserve all of its remaining farmland through its Transfer of Development Rights program by transferring development rights from farmland to a pedestrian friendly, mixed-use village.

## Rural Village



*Existing Conditions:* Parts of New Jersey still exhibit a predominantly rural landscape, with compact towns and village centers surrounded by farms, woodland and rural hamlets. Farmland and open space forms a continuous, productive landscape, with a mosaic of woodlands, hedgerows and small fields providing important wildlife habitat. Buildings are clustered in villages, hamlets and farmsteads with traditional architecture that harmonizes with the natural setting. The character of this rural landscape is an important asset for New Jersey, yet much is currently zoned for large-lot suburban sprawl.



*Trend Development:* Suburban development destroys farmland, open space and natural features. Rigid zoning codes create homogenous tracts of single-family homes on large lots, overwhelming the original village. Individual septic systems are more likely to pollute the groundwater and conflict with wells. Local roads become congested. The traditional, locally based economy withers. The area has lost its rural character.



*Plan Development:* The rural village has grown and prospered, with new mixed-use development occurring in or adjacent to the center. New buildings share or complement the character and appearance of existing structures. New development outside the village occurs in hamlets or in carefully sited estate lots. Extensive areas of farmland and woodlands are maintained. Headwaters and groundwater recharge areas are protected. Natural systems handle wastewater and stormwater. Greenway corridors link communities, providing public access to the countryside. The scenic qualities of a rural community are protected and enhanced, while the local economy is preserved.

## Upper Freehold Township, Monmouth County

### “Country Code” Policy Statement

This document expresses the philosophy of Upper Freehold Township residents. The residents of this Township have either been raised here and chosen to stay or moved here because they enjoy the "rural life." This community has shown a strong commitment to remaining rural by: committing a portion of their tax dollars to Farmland Preservation, foregoing services taken for granted in suburban and city areas, and traveling the extra distance for the necessities.

Many residents have moved to this area because the "rural atmosphere" of their former hometown has been lost to development. Others may be rural newcomers escaping the suburbs and cities. These residents must remember not to expect perfectly paved roads, water and sewer service, a local police department, municipal trash pick-up, and other "luxuries." Residents in a rural community will endure the slow moving farm machinery on the road, early morning tractor noise, and perhaps unpleasant odors of natural fertilizers for the sake of maintaining the country life.

If you are considering this area as your home, please remember that the snowplow may not come as often as you may feel necessary, the supermarket will always be at least a one-half hour ride away. The New Jersey State Police have been providing us with excellent coverage and all necessary special services, and we hope to continue that relationship as long as possible. As a member of this community you will have to contract for trash removal with a private vendor and on two occasions during the year you will be permitted to bring your larger, bulk waste to the Municipal Garage during a Township Clean-up Week. In exchange for your participation in providing these services to your family we will insure a tax rate without the high costs associated with maintaining equipment and employing personnel to deliver these services.

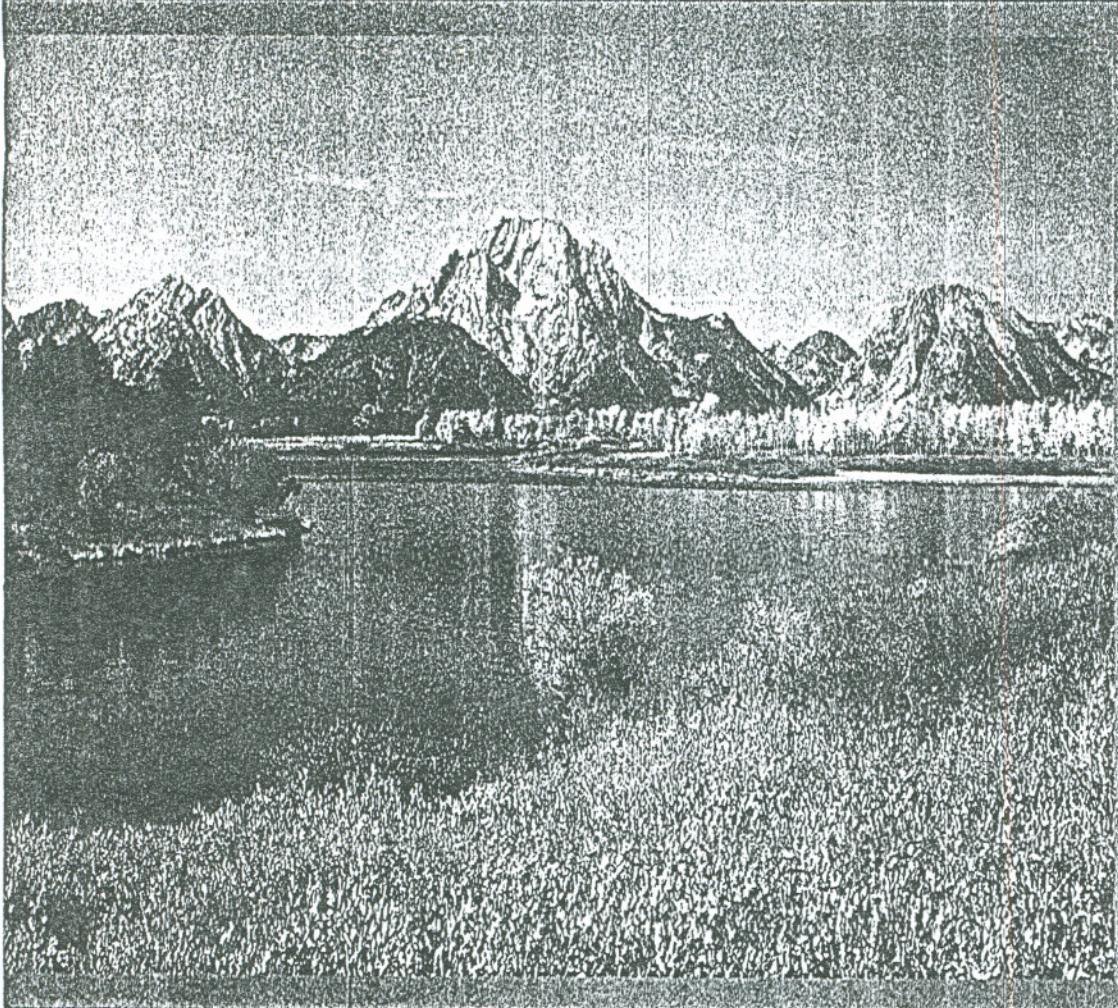
You will sometimes have to pay a price to remain a rural community ... residential development and farmland assessed properties do not provide the rateables of commercial development. Farmland assessed property provides a community with open space, owners enjoy a reduced property assessment, however, the entire Municipality benefits from this acreage

that will have no impact on the local school district or other services. Property owners that sell development rights pursuant to the Farmland Preservation Act insure that farming will continue in New Jersey. The residential development must be controlled in consideration of the services it demands. New homes, lead to new roads, and to new or expanded schools ... and as we all know the present funding of education through property taxes is a strain on the residents of New Jersey. The increased traffic through Upper Freehold Township that has been a result of development in surrounding communities has put pressure on local residents by compelling us to improve roads for the sake of the safety of all citizens.

**I**t is with this ideology that the Committee of Upper Freehold Township does hereby adopt this Code as a notice to all present citizens and future citizens of this Community that Upper Freehold Township Officials will continue the philosophy in their policy and procedure to provide its constituents with a Country Lifestyle.



Comments submitted at Highlands Council  
Meeting of June 7, 2007 by Helen Heinrich.  
Page 40 of 43



# PROTECTING WATER RESOURCES WITH HIGHER-DENSITY DEVELOPMENT



United States  
Environmental Protection  
Agency

*EPA Releases  
New Management  
Measures  
Guidance to  
Control Urban  
Runoff  
(continued)*

factors, including economic growth, community livability, and environmental protection. Based on these changes, EPA perceived a need to update and expand the information in Chapter 4 of the 1993 coastal nonpoint program guidance to help local officials in all regions of the U.S. remain current with state-of-the-art management measures and practices to manage urban runoff.

#### *Obtaining a Copy*

An electronic version of the guidance document is available for download at [www.epa.gov/nps/urban.htm](http://www.epa.gov/nps/urban.htm). Free paper copies of this guidance are available from the National Service Center for Environmental Publications via phone at 1-800-490-9198 or via the Web site: [www.epa.gov/ncipinhom](http://www.epa.gov/ncipinhom) (request Publication # EPA 841-B-05-004).

*[For more information, contact Rod Frederick or Robert Goo, USEPA, Ariel Rios Building, 1200 Pennsylvania Avenue, NW (Mail Code 4503T), Washington, DC 20460. Phone: 202-566-1197 (Frederick) or 202-566-1201 (Goo); E-mail: [frederick.rod@epa.gov](mailto:frederick.rod@epa.gov) or [goo.robert@epa.gov](mailto:goo.robert@epa.gov)]*

### Development Density Scenarios and their Water Resources Impacts

Is low-density development best for water quality? Not necessarily, according to a new study by EPA. The study showed that higher-density development, especially when integrated into a watershed protection strategy, might actually be a better way to protect water resources. In January 2006, EPA released a report, *Protecting Water Resources with Higher-Density Development*, that is intended to help communities better understand the impacts of high- and low-density development on water resources (a copy may be downloaded at [www.epa.gov/smartgrowth/water\\_density.htm](http://www.epa.gov/smartgrowth/water_density.htm)).

"In addition to enjoying the many benefits of growth, communities are also grappling with growth's challenges, including development's impact on water resources," notes Benjamin Grumbles, Assistant Administrator for EPA's Office of Water. "In the face of increasing challenges from non-point source pollution, local governments are looking for, and using, policies, tools, and information that enhance existing neighborhoods and protect water resources. This report gives communities a different perspective and set of information to address the complex interactions between development and water quality."

#### *Is Less Better?*

To test the premise that lower density development would be more protective of water quality, EPA used a simple sketch model to examine water quality impacts arising from three different levels of development density, across multiple scales, and at three different time spans of watershed buildout. EPA examined stormwater runoff impacts generated by this analysis from different development densities to determine comparative differences between scenarios. This analysis demonstrated:

- The higher-density scenarios generate less runoff per housing unit across all spatial scales (one acre, development site, and watershed) and all three temporal build-out rates (see Figure 2);
- For the same amount of development, higher-density development produces less impervious cover, and therefore less overall runoff, at the watershed level than low-density development produces; and
- For any given amount of growth, low-density development spreads water quality impacts across a greater portion of the watershed (see Figure 3).

Scenario A	Scenario B	Scenario C
Impervious Cover = 20% Runoff/acre = 18,700 ft³/yr Runoff/unit = 18,700 ft³/yr	Impervious Cover = 38% Runoff/acre = 24,800 ft³/yr Runoff/unit = 6,200 ft³/yr	Impervious Cover = 65% Runoff/acre = 39,600 ft³/yr Runoff/unit = 4,950 ft³/yr

Figure 2. Although the total runoff per acre increases as density increases, the runoff generated per housing unit decreases dramatically.

*Development  
Density Scenarios  
and their Water  
Resources  
Impacts  
(continued)*

*Sometimes More Is Better*

Taken together, EPA's findings indicate that low-density development may not always be the preferred strategy for protecting water resources. Higher densities may better protect water quality—especially at the development site and watershed levels. Why? To accommodate the same number of houses, denser developments consume less land than lower density developments. Consuming less land means creating less impervious cover in the watershed, which in turn means generating less stormwater runoff.

**High Versus Low Density Development and their Watershed Impacts**

When 10,000 housing units are built in a 10,000-acre watershed, the higher density Scenario C (eight houses per acre) creates significantly less overall runoff and percent watershed imperviousness than does the lower-density Scenario A (one house per acre). What happens if growth in the area continues, and another 70,000 houses are needed? In Scenario A, the growth would spread across eight watersheds (of the same size) and generate 1,496 billion ft<sup>3</sup>/yr of stormwater runoff. In Scenario B, the growth would spread across two watersheds and generate 496 million ft<sup>3</sup>/yr of stormwater runoff. In Scenario C, the growth would fill one watershed and generate 396 million ft<sup>3</sup>/yr of stormwater runoff.

Scenario A	Scenario B	Scenario C
		
10,000 homes built on 10,000 acres produce 10,000 acres x 1 house x 18,700 ft <sup>3</sup> /yr of runoff = <ul style="list-style-type: none"><li>• 187 million ft<sup>3</sup>/yr of stormwater runoff</li><li>• Site: 20% impervious cover</li><li>• Watershed: 20% impervious cover</li></ul>	10,000 homes built on 2,500 acres produce 2,500 acres x 4 houses x 6,200 ft <sup>3</sup> /yr of runoff = <ul style="list-style-type: none"><li>• 62 million ft<sup>3</sup>/yr of stormwater runoff</li><li>• Site: 38% impervious cover</li><li>• Watershed: 9.5% impervious cover</li></ul>	10,000 homes built on 1,250 acres produce 1,250 acres x 8 houses x 4,950 ft <sup>3</sup> /yr of runoff = <ul style="list-style-type: none"><li>• 49.5 million ft<sup>3</sup>/yr of stormwater runoff</li><li>• Site: 65% impervious cover</li><li>• Watershed: 8.1% impervious cover</li></ul>

Figure 3. Low-density development (Scenario A) has the potential to impact more of the watershed.

However, while this study debunks perceptions that low-density development is automatically better for protecting water resources, it does not conclude that high-density development is necessarily always preferable. EPA believes that increasing development densities in certain areas is just one piece of a larger plan that communities can use to minimize regional water quality impacts. High-density growth should occur within the framework of a more encompassing watershed strategy that considers other factors—such as the location of other development (both existing and planned) within the watershed, preservation of critical ecological and buffer areas, and the availability and use of site-specific stormwater management strategies.

*Other Considerations*

This study emphasizes that minimizing total imperviousness and runoff within a region or watershed—rather than from particular sites—is important for the watershed's overall water quality. However, potential local water quality impacts from high-density development must also be considered and addressed. For example, higher-density development can create more site-level impervious cover, which will exacerbate water quality problems in nearby or adjacent waterbodies, if not mitigated. To address this, communities can employ innovative site-level techniques, such as porous pavements, green roofs, rain gardens, and bioretention areas, to prevent, store, and treat stormwater runoff. Many site-level techniques can also enhance a neighborhood's sense of place, increase community character, and, in some cases, perform better financially.

*More Resources....*

Many resources are available to help communities develop and implement watershed-based water quality protection strategies that incorporate high-density development. In fact, EPA recently released two comprehensive guidance documents that provide extensive information about watershed planning and stormwater runoff control—both of which are described in greater detail in the preceding articles of this newsletter:

- *Handbook for Developing Watershed Plans to Restore and Protect Our Waters* ([www.epa.gov/owow/nps/watershed\\_handbook](http://www.epa.gov/owow/nps/watershed_handbook))
- *National Management Measures to Control Nonpoint Source Pollution from Urban Areas* ([www.epa.gov/nps/urbanmmm](http://www.epa.gov/nps/urbanmmm))

*Development  
Density Scenarios  
and their Water  
Resources  
Impacts  
(continued)*

Two additional EPA publications, *Using Smart Growth Techniques as Stormwater Best Management Practices* and *Protecting Water Resources with Smart Growth* draw on the experience of local governments, which has shown that regional and site-specific strategies are most effective when implemented together. Both are available at [www.epa.gov/smartgrowth](http://www.epa.gov/smartgrowth).

Beyond these EPA resources, the Local Government Commission and the National Association of Realtors jointly published *Creating Great Neighborhoods: Density in Your Community*, which provides information on additional community benefits of high-density development ([www.epa.gov/smartgrowth/pdf/density.pdf](http://www.epa.gov/smartgrowth/pdf/density.pdf)). Lastly, Emeryville, California, has a guide for minimizing stormwater impacts from high-density development titled *Stormwater Guidelines for Green Dense Development* ([www.ci.emeryville.ca.us/planning/pdf/stormwater\\_guidelines.pdf](http://www.ci.emeryville.ca.us/planning/pdf/stormwater_guidelines.pdf)).

EPA and other organizations offer additional resources on smart growth tools and techniques. For a list of relevant publications and other resources, see [www.epa.gov/smartgrowth](http://www.epa.gov/smartgrowth). Hard copies of *Protecting Water Resources with Higher-Density Development* are available for free from the National Service Center for Environmental Publications, by e-mailing [ncepimal@one.net](mailto:ncepimal@one.net) or calling 800-490-9198 and requesting EPA publication 231-R-06-001.

[For more information, please contact Lynn Richards, USEPA, 1200 Pennsylvania Avenue, NW (Mail Code 1807T), Washington, DC 20460. Phone: 202-566-2858; E-mail: [richards.lynn@epa.gov](mailto:richards.lynn@epa.gov)]

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## **News from the States, Tribes, and Localities**

### *Portland's Green Streets Protect Water Quality*

In Portland, Oregon, drivers are seeing more stormwater management features popping up—although many might not recognize them for what they really are. Relying on the familiar curb and stormwater inlet method of controlling stormwater runoff from roads is, by necessity, becoming a thing of the past in Portland. Today, the attractive landscaped island along the street might also be serving as a stormwater collection and filtration feature. The asphalt under the wheels of cars might be porous—holding up to the weight of the traffic but also allowing rainwater to soak through to the soil underneath. Portland is in the midst of a tremendous push to capture, store, and infiltrate as much stormwater as possible on-site. By doing so, Portland hopes to help reduce the amount of stormwater entering the sewer system, prevent sewer backups in basements, and eliminate up to 94 percent of combined sewer overflows into local waterways.

### *Portland Has a History of Stormwater Challenges*

Portland receives an average of 37 inches of rainfall per year, which generates approximately 10 billion gallons of stormwater runoff annually. For decades, a portion of this stormwater runoff has mixed with untreated sewage in Portland's combined sewer system and has been pouring into the Columbia Slough and Willamette River through combined sewer overflows (CSO). When Portland's first sewer system was built in the late 1800s, it carried both sewage and stormwater runoff directly to the rivers. In 1952, the sewage mix was redirected to a wastewater treatment plant. As the City grew, these original sewer lines quickly filled to capacity with each rain. Whatever volume didn't fit into the pipes—including rainwater, human and industrial waste, toxic materials, and debris—overflowed into streams and rivers. The CSO problem continues today, along with its associated environmental and human health risks.

Portland began a comprehensive program to address its CSO problem in 1991, in response to a lawsuit-driven mandate by the Oregon Department of Environmental Quality (DEQ). The DEQ required that Portland address its CSO problem within 20 years, by 2011. In response, Portland's Bureau of Environmental Services (BES) launched a group of projects in 1991 to remove and/or temporarily store a significant amount of the runoff that enters the combined system. Some of the projects require new infrastructure, including constructing big tunnels to capture and store stormwater and CSO until treatment capacity is available, separating combined sewers, and installing new pump stations to redirect CSO to different treatment systems with more capacity (see [www.portlandonline.com/bes/index.cfm?c=31030](http://www.portlandonline.com/bes/index.cfm?c=31030) for more information). Collectively, implemen-

**RESOLUTION 2007- 13**  
**NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL**  
**APPROVAL OF A SUSTAINABLE AGRICULTURE GRANT TO**  
**THE SUSSEX COUNTY AGRICULTURE DEVELOPMENT BOARD**

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

**WHEREAS**, Section 2 of the Highlands Act specifies that the maintenance of “agricultural production and a positive agricultural business climate should be encouraged to the maximum extent possible wherever appropriate” in the Highlands Region; and

**WHEREAS**, Section 10 of the Highlands Act sets goals for the Regional Master Plan to preserve farmlands and promote the continuation and expansion of agricultural uses and opportunities; and

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

**WHEREAS**, the Highlands Council in Resolution 2006-19 authorized the development of a process for the solicitation of grants to Highlands Region municipalities and counties in three grant categories: Integrated Crop Management Grants; Market Development/Niche Crop Grants; and County Agriculture Development Board Capacity Building Grants; and

**WHEREAS**, Sussex County Agriculture Development Board (CADB) is seeking Market Development/Niche Crop Grant funds to develop a producer driven and managed commercial processing kitchen, the long-term goal of which is to establish a certified kitchen and provide value-added production and processing of existing and new crops in the Highlands Region; and

**WHEREAS**, the Sussex CADB project is a partnership including Sussex County Farmland Preservation, Rutgers Cooperative Extension of Sussex County, Sussex County Vocational Technical School, Rutgers Innovation Food Center, Food Shed Alliance, NJ Department of Agriculture and Sussex County Economic Development; and

**WHEREAS**, the Sussex County Cooperative Kitchen will be run as an LLC through a statewide producer-owned cooperative dedicated to the promotion of value-added products; and

**WHEREAS**, the Highlands Council’s staff has reviewed the grant application received by the Highlands Council and has made recommendations with conditions to the Agriculture Committee; and

**WHEREAS**, the members of the Agriculture Committee reviewed staff’s grant recommendations, and recommends the approval of the Sussex CADB Marketing Development/Niche Crop Grant with conditions.

**NOW, THEREFORE, BE IT RESOLVED** by the Highlands Council that the Executive Director, or her designee, is authorized to enter into a grant agreement with the Sussex CADB for an amount not to exceed \$10,000 for the first year with reserve funds to support a second year grant request for a two year total not to exceed \$20,000 and to negotiate and devise a technical work plan and schedule with conditions approved by the Agriculture Committee.

**RESOLUTION 2007- 13**  
**NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL**  
**APPROVAL OF A SUSTAINABLE AGRICULTURE GRANT TO**  
**THE SUSSEX COUNTY AGRICULTURE DEVELOPMENT BOARD**

**CERTIFICATION**

I hereby certify that the foregoing Resolution was adopted by the Highlands Council at its regular meeting held on the 7th day of June, 2007.

  
John Weingart, Chairman

**Vote on the Approval of**  
**this Resolution**

Yes    No    Abstain    Absent

Councilmember Alstede	✓	—	—	—
Councilmember Calabrese	✓	—	—	—
Councilmember Carluccio	✓	—	—	—
Councilmember Cogger	✓	—	—	—
Councilmember Dillingham	✓	—	—	—
Councilmember Kovach	✓	—	—	—
Councilmember Letts	—	—	—	✓
Councilmember Pasquarelli	✓	—	—	—
Councilmember Peterson	—	—	—	✓
Councilmember Schrier	✓	—	—	—
Councilmember Vetrano	—	—	✓	—
Councilmember Way	✓	—	—	—
Councilmember Weingart	✓	—	—	—
Councilmember Whitenack	✓	—	—	—

## RESOLUTION 2007- 14

### NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL CONTRACT WITH INTEGRA REALTY RESOURCES

**WHEREAS**, section 6.g of the Highlands Act empowers the Highlands Council to “enter into any and all agreements or contracts, execute any and all instruments, and do and perform any and all acts or things necessary, convenient, or desirable for the purposes of the council or to carry out any power, duty, or responsibility expressly given in” the Highlands Act; and

**WHEREAS**, section 13 of the Highlands Act requires the Highlands Council to conduct a Highlands Region real estate analysis in preparation for developing a Highlands Region Transfer of Development Rights (“TDR”) program, which analysis will provide information regarding values of residential and commercial development within the Region and the range of potential market values for development rights in both TDR sending and receiving areas; and

**WHEREAS**, to address the above needs, the Highlands Council prepared a Request for Qualifications (“RFQ”) to complete the regional real estate analysis, which RFQ was mailed to selected firms and posted on the Highlands Council’s website; and

**WHEREAS**, only one firm, Integra Realty Resources (“Integra”) submitted its qualifications and a proposal, which submittal was reviewed by Highlands Council staff; and

**WHEREAS**, Integra is a nationally recognized appraisal and real estate market analysis firm, with intimate knowledge of the northern New Jersey real estate markets; and

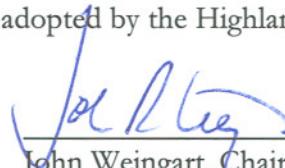
**WHEREAS**, the Highlands Council has previously contracted with Integra to assist the Highlands Council in developing aspects of the Highlands TDR Program, and the work under this contract will continue to support the Council’s efforts to establish a comprehensive regional TDR program; and

**WHEREAS**, Integra and the Highlands Council staff have prepared a scope of work to undertake certain activities to assist the Council in completing the regional real estate analysis for a total of \$35,000, which scope of work and budget have been reviewed and approved by the Plan Development Committee and Budget and Finance Committee; and

**NOW THEREFORE, BE IT RESOLVED** by the Highlands Council that the Executive Director, or her designee, is hereby authorized to enter into a contract with Integra for an amount not to exceed \$35,000.

#### CERTIFICATION

I hereby certify that the foregoing Resolution was adopted by the Highlands Council at its regular meeting held on the 7<sup>th</sup> day of June, 2007.



---

John Weingart, Chairman

Vote on the Approval of  
this Resolution

Yes   No   Abstain   Absent

Councilmember Alstede  
Councilmember Calabrese

✓	—	—	—
✓	—	—	—

**RESOLUTION 2007- 14**  
**NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL**  
**CONTRACT WITH INTEGRA REALTY RESOURCES**

Councilmember Carluccio	✓	—	—	—
Councilmember Cogger	✓	—	—	—
Councilmember Dillingham	✓	—	—	—
Councilmember Kovach	✓	—	—	—
Councilmember Letts	—	—	—	✓
Councilmember Pasquarelli	✓	—	—	—
Councilmember Peterson	—	—	—	✓
Councilmember Schrier	✓	—	—	—
Councilmember Vetrano	✓	—	—	—
Councilmember Way	✓	—	—	—
Councilmember Weingart	✓	—	—	—
Councilmember Whitenack	✓	—	—	—

## RESOLUTION 2007- 15

### NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL CONTRACT WITH UNITED STATES GEOLOGICAL SURVEY

**WHEREAS**, the Highlands Water Protection and Planning Act (the “Highlands Act”) mandates that the Highlands Water Protection and Planning Council (the “Highlands Council”) adopt a Regional Master Plan; and

**WHEREAS**, section 6.g of the Highlands Act empowers the Highlands Council to “enter into any and all agreements or contracts, execute any and all instruments, and do and perform any and all acts or things necessary, convenient, or desirable for the purposes of the council or to carry out any power, duty, or responsibility expressly given in” the Highlands Act; and

**WHEREAS**, to develop a comprehensive, science-based Regional Master Plan (“RMP”), it is essential that the Highlands Council have a complete understanding of Highlands regional water resources and their availability for current and future use to serve human and ecological needs; and

**WHEREAS**, to address the above needs, the Highlands Council previously contracted with the United States Geological Survey (“USGS”), where USGS provided technical support in developing methods for estimating water capacity in the Highlands Region and for establishing background nitrate concentrations and standards for nitrate dilution (i.e., septic densities), and provided assistance in preparing technical reports on water use, water availability, and water quality; and

**WHEREAS**, in order to respond to public comments to the draft RMP concerning the Region’s water, and to develop technical guidelines for implementation of the policies and standards contained in the draft RMP relating to water, additional technical assistance from USGS is needed; and

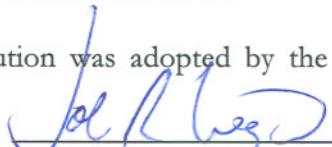
**WHEREAS**, the Highlands Council may enter into a contract with a federal agency, such as USGS, to provide required services without having to publicly advertise the contract as authorized by N.J.S.A. 52:34-10(a); and

**WHEREAS**, USGS and the Highlands Council staff have prepared a scope of work to undertake certain activities to assist the Council in completing the final RMP for a total of \$169,684.00, which scope of work and budget have been reviewed and approved by the Plan Development Committee and Budget and Finance Committee; and

**NOW THEREFORE, BE IT RESOLVED** by the Highlands Council that the Executive Director, or her designee, is hereby authorized to enter into a contract with USGS for an amount not to exceed \$169,684.00.

#### CERTIFICATION

I hereby certify that the foregoing Resolution was adopted by the Highlands Council at its regular meeting held on the 7<sup>th</sup> day of June, 2007.

  
John Weingart, Chairman

Vote on the Approval of  
this Resolution

Yes   No   Abstain   Absent

Councilmember Alstede

✓ \_\_\_\_\_

**RESOLUTION 2007- 15**  
**NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL**  
**CONTRACT WITH UNITED STATES GEOLOGICAL SURVEY**

Councilmember Calabrese	✓	—	—	—
Councilmember Carluccio	✓	—	—	—
Councilmember Cogger	✓	—	—	—
Councilmember Dillingham	✓	—	—	—
Councilmember Kovach	✓	—	—	—
Councilmember Letts	—	—	—	✓
Councilmember Pasquarelli	✓	—	—	—
Councilmember Peterson	—	—	—	✓
Councilmember Schrier	✓	—	—	—
Councilmember Vetrano	✓	—	—	—
Councilmember Way	✓	—	—	—
Councilmember Weingart	✓	—	—	—
Councilmember Whitenack	✓	—	—	—

## RESOLUTION 2007- 16

### NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL ADOPTION OF UNIFORM CODE OF ETHICS

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

**WHEREAS**, Section 6 of the Highlands Act empowers the Highlands Council to maintain an office, secure public and private funding, enter agreements and contracts, employ personnel as it may require, appoint advisory boards to assist in its activities, and solicit and consider public input and comment on the Highlands Council's activities by holding public hearings and conferences and providing other opportunities for such input; and

**WHEREAS**, the Highlands Council desires that its business be conducted in accordance with the highest ethical standards; and

**WHEREAS**, the Highlands Council, in Resolution 2005-08, adopted a Code of Ethics on February 3, 2005; and

**WHEREAS**, pursuant to Section 23(a)(2) of the State Conflicts Law the State Ethics Commission promulgated an Uniform Ethics Code to govern and guide the conduct of State officers and employees, effective September 11, 2006, which shall be the primary code of ethics for State agencies; and

**WHEREAS**, the Highlands Council determines that the standards of conduct of its members and employees shall comply with those of the State Uniform Ethics Code.

#### **NOW, THEREFORE, BE IT RESOLVED**

1. The Highlands Council hereby adopts the State Uniform Code of Ethics as the Highlands Council Code of Ethics; and
2. This Resolution hereby supersedes Resolution 2005-8.

#### **CERTIFICATION**

I hereby certify that the foregoing Resolution was adopted by the Highlands Council at its regular meeting held on the 7th day of June, 2007.



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John Weingart, Chairman

#### Vote on the Approval of this Resolution

Yes   No   Abstain   Absent

Councilmember Alstede

\_\_\_\_\_  \_\_\_\_\_

Councilmember Calabrese

\_\_\_\_\_  \_\_\_\_\_

Councilmember Carluccio

\_\_\_\_\_  \_\_\_\_\_

Councilmember Cogger

\_\_\_\_\_  \_\_\_\_\_

Councilmember Dillingham

\_\_\_\_\_  \_\_\_\_\_

Councilmember Kovach

\_\_\_\_\_  \_\_\_\_\_

Councilmember Letts

\_\_\_\_\_  \_\_\_\_\_

Councilmember Pasquarelli

\_\_\_\_\_  \_\_\_\_\_

Councilmember Peterson

\_\_\_\_\_  \_\_\_\_\_

**RESOLUTION 2007- 16**  
**NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL**  
**ADOPTION OF UNIFORM CODE OF ETHICS**

Councilmember Schrier	✓	_____	_____	_____
Councilmember Vetrano	✓	_____	_____	_____
Councilmember Way	✓	_____	_____	_____
Councilmember Weingart	✓	_____	_____	_____
Councilmember Whitenack	✓	_____	_____	_____