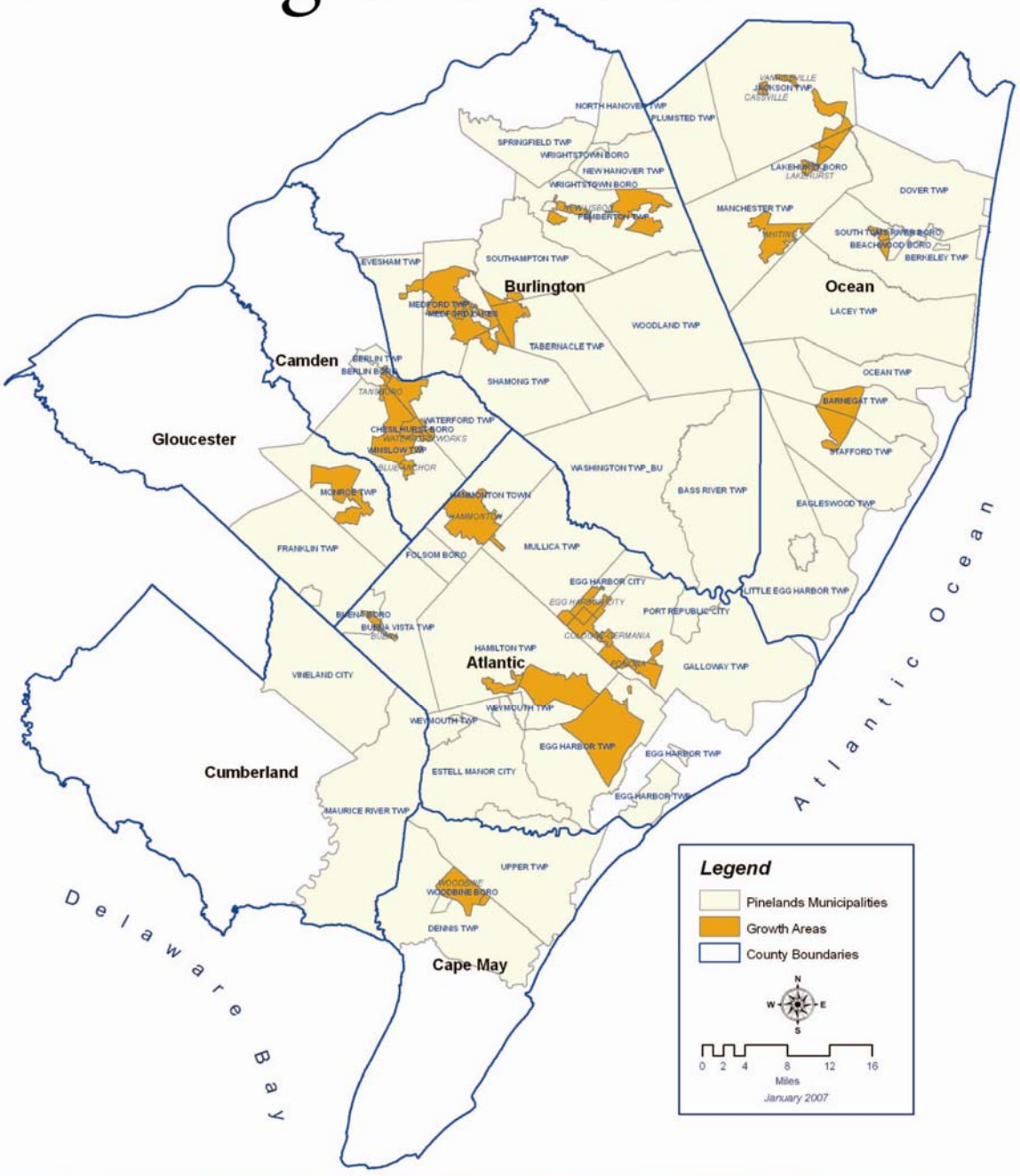
Pinelands Housing Task Force



Housing Demand Assessment Project

Final Report

January, 2007

☞ PLEASE NOTE ☜

Unless specifically indicated otherwise, throughout this Report the term wetlands is defined as wetlands plus a 200-foot wetlands buffer.

PINELANDS HOUSING TASK FORCE
HOUSING DEMAND ASSESSMENT PROJECT

FINAL REPORT

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Acknowledgements

In recognition of their participation, cooperation and support, sincere thanks are extended to the members of the Housing Task Force, whose names and affiliations are noted below:

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In addition to the members of the Housing Task Force, Pinelands Commission staff played a pivotal role in the creation of this report. From Land Use and Technology Programs, Larry L. Liggett, Susan Grogan, Frank Donnelly and Anthony O'Donnell assisted with research, review and editing of the report. Russell Davis and Mark DeLorenzo, Geographic Information Systems staff, produced maps and conducted data analysis. From Information Services, John LaMaccchia and Janet Pierce assisted in data assembly. From the Executive Director's office Nadine Young who provided administrative support and David M. Kutner who was the project's manager and was the chief author of this report.

Part 1 Introduction

The Pinelands Protection Act requires that the Pinelands Commission periodically review the Comprehensive Management Plan (CMP). In a process that began in 2001, the Commission undertook the third such review focusing on permanent land protection and growth areas (pace, cost, location, amount, quality). As a result of this most recent review, the Commission identified 20 initiatives to be undertaken within the ensuing 5 years to implement the goals of the CMP. One of the first initiatives the Commission elected to undertake was to review and update the projections of housing demand in Southern New Jersey and to determine whether zone capacities within and outside the Pinelands area were appropriate to serve future demand.

There were several reasons in addition to the periodic review requirements of the CMP that prompted the Commission to undertake this housing demand assessment:

1. The population data that served as the basis for housing allocations in the original CMP (1981) were derived from 1979 population counts released prior to the official 1980 Census data. By the Commission's 2001 CMP review, this data was considerably out of date.
2. The Commission has embarked on a major review of the Kirkwood Cohansey aquifer. This study is intended to determine how the current and future water-supply needs within the Pinelands may be met while protecting the Kirkwood-Cohansey aquifer system and avoiding any adverse ecological impact on the Pinelands. Resource quality and capacity and housing demand are inextricably related.
3. Accurate projections of housing demand will provide a reliable basis for municipal capital investment and infrastructure planning.
4. Refined housing projections will help to respond to questions regarding the appropriateness of the designation and size of growth areas throughout the Pinelands.

The housing demand assessment project was intended to devise an objective and reasonable method for predicting and apportioning future housing need in development areas both inside ***and*** outside the Pinelands. The methodology used to apportion housing demand consisted of the 4 basic and interrelated steps listed below and described in detail elsewhere in this report:

1. ***Choose a population projection;***
2. ***Calculate the future housing demand to respond to population growth;***
3. ***Determine the amount of sewerable vacant, developable land;***
4. ***Apportion future housing inside and outside the Pinelands.***

In order to undertake this project, the Pinelands Commission approved a project scope that detailed the range of tasks to be undertaken, the composition of the task force that would be asked to carry out the project and the principles that would guide the task force members in their efforts (***see Appendix 1***, ***Resolution # PC4-03-110 Authorizing the Formation of the Housing Task Force)***. On February 5, 2004, in accordance with the first project scope task, a "kickoff" meeting was convened with planning directors from each of the seven Counties within the Pinelands (Atlantic, Burlington, Ocean, Gloucester, Camden, Cumberland and Cape May). The purpose of this meeting was to review the scope and technical requirements of the project. Over the following 5 months the county planners and Commission staff continued to meet in a series of workshops to review population and housing demand projections that would be used in conjunction with the project and to discuss alternative allocation methodologies. These workshops provided a technical review that was intended to serve as a foundation for the deliberations of the Housing Task Force once it was assembled.

The second major task of the project scope was to establish a broad-based Task Force of government and non-government organizations that would recommend methods to apportion future residential growth within the Pinelands Area among the 24 Regional Growth Areas. Invitations to serve on the Housing Task Force were distributed at the end of March, 2004 and the first formal meeting of the Task Force was convened on July 1, 2004.

Between July, 2004 and June, 2005 the Pinelands Housing Task Force held seven meetings (***see Appendix 2, Meeting Minutes – Pinelands Housing Task Force***). The purpose of these meetings was to review and refine the housing allocation methodology; identify the range of likely constraints to future development in any of the growth areas; and, finally, to review, refine and endorse the local-level housing assignments. In addition, the Housing Task Force was asked to consider policy recommendations regarding whether:

- Pinelands Development Credits should be added to or considered as a portion of the local level housing assignments;
- Housing assignments should be adjusted to account for affordable housing obligations established by the Council On Affordable Housing (COAH);

- Portions of growth areas should be set aside to reserve capacity for development demands that may be experienced after the project planning horizon, the out years beyond 2020.

The Housing Task Force proposed policies directly related to each of these three issues following which a draft Preliminary Housing Demand Assessment Project Report was assembled. A Public Meeting was conducted on December 6, 2005 to solicit comments on the draft Preliminary Report. Following this public input process the Housing Task Force authorized the release of the *Preliminary* Housing Demand Assessment Project Report, which was made available to the public in March, 2006.

Following release of the *Preliminary* Housing Demand Assessment Project Report the Housing Task Force conducted a series of meetings to consider strategies to implement the Report policy recommendations. The principal focus of these meetings was to determine how to define and achieve land use efficiency. The Task Force completed the scope of its work with a final working meeting on January 11, 2007. The conclusions generated through the efforts of the Housing Task Force and recommendations to implement these conclusions are outlined in Part 7 of this ***Final*** Report.

Part 2 County Planners Working Group

To begin the housing demand assessment process, representatives of planning offices from the seven Counties within the Pinelands Area were invited to meet to review current population projections and help to determine how much of this population growth should be anticipated within the Pinelands Area. The planners were asked to meet in advance of the formation of the Housing Task Force in order to accomplish four preliminary tasks:

1. Review and select available population projections at the County-wide level (In accordance with the resolution authorizing the housing demand analysis, the Pinelands Commission staff was instructed to review these county level projections with the Office of Smart Growth and the New Jersey Department of Labor. To the extent that any questions about the adjusted projections were raised, the Commission staff was required to work with the Office of Smart Growth, the Department of Labor and the counties to resolve them.);
2. Convert population projections into county-level housing demand projections and recommend approaches to allocate this demand inside and outside the Pinelands.;
3. Determine if there were any overriding constraints to meeting such demands;
4. Prepare several different scenarios for allocating future population and housing to growth areas within and outside the Pinelands. The scenarios were to be based upon general, region-wide influences, constraints and opportunities (such as available land, the land use and environmental programs of the CMP, infrastructure, job and housing markets).

Issues

During the series of meetings that were held throughout the spring of 2004 (***see Appendix 3 Meeting Minutes – County Planners Working Group***), the County planners dealt with the following two issues:

1. *The basis for the selection of population projections, and thus the basis for projecting future housing need.*

The Pinelands Commission determined that 2000-2020 population projections developed by the New Jersey Department of Labor should be used as the starting point for the housing demand analysis. This data was used for six of the seven Pinelands counties. Since data refinements were available for Atlantic County these alternative figures were used, at the County's request (*see Part 4 – Approach, Selecting Population Projections*).

Future housing need was calculated by dividing the number of residents projected to be living in the County by 2020[1] by the number of persons per household in that County, as reflected in the 2000 Census. For comparison, the Working Group did consider using the number of persons per household for Southern New Jersey as the factor for determining future housing need. However, after reviewing the results of the application of this alternative, it was agreed that the household size by County was sufficient.

Population projections and housing estimates were developed at the county level. However, since the boundaries of all seven Counties extend beyond the Pinelands Area, and since the increase in population from any County is not likely to occur solely within the Pinelands Area, a method was devised to reasonably distribute population growth inside and outside the Pinelands Area. To accomplish this, the 2020 population and housing projections were apportioned using a shift-share projection method that was based on the amount of sewerable, vacant developable land inside and outside the Pinelands in designated development areas: State Plan Area 1 (metropolitan), State Plan Area 2 (suburban), and designated centers outside the Pinelands; and Regional Growth Areas, Towns, and select Villages inside the Pinelands Area. The County Planners Working Group agreed that this was an acceptable method.

2. *The source for calculating the vacant developable land area within each County*

Land Use/Land Cover (LULC) data was used to calculate the amount of sewerable, vacant developable land. LULC information from the NJ Department of Environmental Protection (NJDEP) from 1995/97 was used for Atlantic, Cape May, Cumberland, and Ocean Counties. This NJDEP data was the most recent data available for most Counties throughout the State. However, the Delaware Valley Regional Planning Commission (DVRPC) had generated LULC data using 2000 aerial photography. Burlington, Camden, and Gloucester Counties are within the DVRPC's area of jurisdiction. At Burlington County's request, this more current data was used to evaluate land use patterns in these three counties.

Although the use of more recent aerial photography does not create disparities with other Counties since population projections are county-specific and may not shift between counties, more current aerial photography does allow for more accurate assessment of developable

[1] This data will be updated to 2025 when the New Jersey Department of Community Affairs Office of Smart Growth releases its state-wide population counts.

land within the Pinelands and non-Pinelands protion of the County. Thus, the four Counties that lie outside of the DVRPC jurisdiction were offered the opportunity to adjust the 1995/97 DEP LULC using 2002 aerial photography to account for development that occurred between 1995 and 2000.

A suggested methodology was developed to perform this adjustment (***see memo entitled "Suggested Methodology for Adjusting Land Use/Land Cover Data", dated 06.02.04, Appendix 4***). The recommended approach for this adjustment required that the four affected Counties compare 2002 aerial photographs (which don't have land use/land cover classifications) with the 1995/97 DEP LULC coverage to identify any development that may have occurred in the intervening period. Any development that had occurred between 2000 and 2002 would then be deleted from consideration. The result of this calculation would then be subtracted from the 1995/1997 estimates of vacant developable land for areas within and outside the Pinelands for each County.

The objective of this exercise was to develop a more current assessment of development and differentiate between vacant land that may have been consumed between 1995/97 and 2000 within and outside the Pinelands in order to establish a common (year 2000) baseline for all 7 participating Counties. However, based on a sampling of data from Ocean County it was discovered that this adjustment did not materially alter the proportion of vacant developable land within and outside the Pinelands. In addition, accurate details regarding development status proved to be difficult to obtain. Consequently, it was agreed that this adjustment would yield little change in the vacant land and that the NJDEP 1995/97 LULC for Atlantic, Cape May, Cumberland, and Ocean Counties would be adequate for the purposes of the study.

Once the question regarding the data source for the land use/land cover information was resolved, three scenarios for calculating vacant, developable land were tested. In the first scenario wetlands areas were deleted from vacant land areas but wetlands buffers were not discounted. In the second scenario a 300-foot wetlands buffer was subtracted from the vacant developable land area based on a literal interpretation of the provisions of the Comprehensive Management Plan[2]. In the third scenario, lands lying within a fifty-foot buffer outside the Pinelands Area and a two-hundred-foot buffer inside the Pinelands Area was subtracted from the total vacant, developable land area. This discount was based upon the wetlands buffer area typically required for development applications.

The third scenario was selected for the apportionment analysis since it was considered the most realistic of the three approaches. Using this approach, all wetlands and lands within the buffer, regardless of land use, were excluded from the estimate of vacant developable land.

Once the amount of vacant developable land was calculated, an apportionment percentage was created by dividing the amount of vacant developable land in Pinelands development areas by the total amount of vacant developable land for each county.

Once the Planner's Working Group completed their review and endorsed the base-line population data and apportionment methodology, the Housing Task Force began its the formal deliberative process described in Part 3.

[2] See Section 7:50 – 6.14 "Wetland Transition Areas"

Part 3 Housing Task Force

In accordance with Resolution # PC4-03-110 the Housing Task Force represented a diverse and broad range of interests and consisted of representatives from the following organizations:

- Pinelands Commission (2 members to serve as Chair and Vice Chair)
- New Jersey Department of Community Affairs
- New Jersey Department of Environmental Protection
- New Jersey Department of Transportation
- Coalition for Affordable Housing
- 7 Pinelands Area County Planning Offices (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Ocean)
- New Jersey Builders Association
- Pinelands municipalities (a municipal representative from each of the 5 Pinelands Regional Growth counties, to be designated by the Pinelands Municipal Council)
- Pinelands Preservation Alliance
- New Jersey State Chamber of Commerce

The role of the Task Force was to review scenarios for allocating housing, adjust them as appropriate, and apportion the projected Pinelands growth to Regional Growth Areas to the extent that such growth can be accommodated within the framework of the Comprehensive Management Plan. In doing so, the Task Force was asked to:

1. develop and apply a methodology to allocate Pinelands projections; and
2. consider the general effect of sub-regional constraints and opportunities on the amount and location of future growth within the Pinelands and within the various Regional Growth Areas

Issues

During the course of their meetings, the members of the Housing Task Force addressed several questions regarding the methodology to project housing demand. These issues and their resolutions are summarized below.

Issue 1*: *Should a uniform persons-per-household figure be used to calculate housing demand as opposed to County-specific household sizes listed in the 2000 Census?

Response: A data test was conducted to determine the effect of using a uniform household size to calculate the number of households in comparison to the application of County-specific household sizes. See "*Test - Determining Future Households by Using County PPH versus Southern New Jersey PPH"*, (***Appendix 5***). The value selected for the uniform household size, 2.62 persons-per-household, is the average household size for Southern New Jersey. In virtually all cases, the difference between the two approaches, uniform vs. County-specific, was extremely small. In those cases where the percentage of difference was relatively larger (e.g. Cape May) the absolute difference was marginal because the total projected net population change was small. Since the use of County-specific household sizes was consistent with the methodology because the apportionment calculations are County-specific, the Housing Task Force decided to use the County-specific figures. However, it was noted that regional household size has been declining and that there is no reliable source that indicates that housing size will not continue to follow this trend. It was suggested that this characteristic might warrant the retention of additional housing opportunities beyond those calculated in the Formula.

***Issue 2:** Should housing demand be differentiated based upon housing types, which may have different land demands?*

Response: The objective of the apportionment process was to attempt to predict how many housing units will be needed to accommodate likely future population growth. The characteristics of the population (age, family size, etc.) are important factors that will define the different types of housing that should be provided. However, it will be more appropriate to address the issue of housing type when density assignments within Growth Areas are considered, a step that will follow the completion of the Pinelands-wide housing assignments.

To the extent that this question related to household size, however, it was noted that if a smaller household size was used for this calculation, for example to reflect a greater number of elderly households with no children, housing demand would have been undercounted. However, as noted in Issue #1, above, using a lower but uniform household size for all of South Jersey only marginally affected the housing demand calculation.

Issue 3*: *Should prior approved units that have yet to be constructed be considered as development commitments? If so, the associated land should not be counted as vacant and developable for the purpose of the apportionment.

Response: It was agreed that lands associated with previously approved but un-built units *should* be considered as committed and not developable. An assessment of Commission records was conducted to identify development for which final approvals had been issued since 2000 (committed) and approved

development before 2000 for which construction permits had been issued after 2000. This effort was intended to yield a determination of the number of committed or constructed units during 2000–2004 within the Pinelands Growth Areas. As a function of this analysis, land associated with units committed prior to 01.01.00 but built and land associated with units committed between 2000 and 2004 would be subtracted from the estimate of vacant developable land. The number of units associated with those lands would be credited against the projected 2000 – 2020 housing demand figure (see **Part 5 - Constraints and Opportunities Analysis** for a description of this assessment).

Issue 4*: *Does the inside/outside allocation methodology give undue weight to land in Pinelands Villages with low development densities, thereby overstating development opportunities?

Response: The apportionment methodology may overstate local share of demand somewhat because it did not distinguish between Growth Areas, Towns and Villages. To account for varying development densities within these development areas a weighted apportionment analysis was conducted. The results of this analysis are presented in a memo dated July 29, 2004, entitled "Allocating Units–Standard versus Weighted Method" ***(see Appendix 6)***[3].

Following its review of the weighting methodology, the Housing Task Force concluded that the growth areas that were compared for the inside/outside methodology did have similar characteristics as long as non-sewered villages, which had no analogous areas outside the Pinelands area, were deleted from the equation. Consequently, the Task Force decided that the original allocation methodology should be adjusted so that only those villages within existing or planned sewer service areas would be considered developable. In addition, the Task Force agreed that a weighting method would not be used. The inside/outside apportionment percentages and the County-level assignments are presented in ***Table 1***, below.

Issue 5*: *Since future housing demand might be accommodated outside of the Pinelands, through redevelopment of existing urban centers, should future projections within the Pinelands be reduced?

Response: One of the implicit and fundamental objectives of the housing allocation exercise was to develop an objective and reasonable method to predict and apportion housing need in development areas within and outside the Pinelands. This objective presupposes a distribution of housing demand and probable growth. Moreover, although smart growth principles could direct virtually all development to urban centers, it is

Table 1
Sewerable Vacant Developable Land for Housing Allocation With Wetlands Buffer
(200 ft. Inside/50 ft. Outside)

County	Outside Zones	Vacant Acres OUT	Inside Zones	Vacant Acres IN	Total Acres IN+OUT	% OUT	% IN
Atlantic	PA1 & PA2 & Designated Centers	9,870	RGA & Towns	18,510	28,380	35%	65%
Burlington	PA1 & PA2 & Designated Centers	24,330	RGA & Towns	3,720	28,050	87%	13%
Camden	PA1 & PA2 & Designated Centers	14,150	RGA & Towns	5,190	19,340	73%	27%
Cape May	PA1 & PA2 & Designated Centers	7,100	RGA & Towns	2,330	9,430	75%	25%
Cumberland	PA1 & PA2 & Designated Centers	25,439	RGA & Towns	0	25,439	100%	0%
Gloucester	PA1 & PA2 & Designated Centers	29,750	RGA & Towns	2,400	32,150	93%	7%
Ocean	PA1 & PA2 & Designated Centers	40,620	RGA & Towns	9,310	49,930	81%	19%
TOTAL		**151,259**		**41,460**	**192,719**		

[3] These figures do not reflect the final assignments, which were further refined through the course of the project

unlikely that such result would occur without considerable regulatory changes and substantial financial subsidies.

It was noted that the land use/land cover data included codes for vacant urban land. Parcels coded as vacant urban land were considered developable. Therefore, the apportionment did account for some redevelopment potential within urban areas outside the Pinelands Area.

Nevertheless an analysis was conducted to estimate an absolute credit for redevelopment potential. This analysis examined housing characteristics within Atlantic City and the City of Camden, the only two municipalities in the seven Pinelands Counties that are classified as "large cities"[4]. The number of housing units in these two municipalities that were identified as "vacant-other" in the 2000 Census were subtracted (credited) from the total future apportionment for Atlantic and Camden Counties. The result of the credit was that the number of housing units apportioned to Atlantic County was reduced by 500, for a total initial allocation of 14,050. The redevelopment credit resulted in a reduction in the apportionment to Camden County by 860 units, for a total allocation of 2,860. (***See table entitled "Crediting Future Housing Allocation Based on Credit for Redevelopment", Appendix 7)***.

The Task Force decided that there is no reliable, objective and reasonable method to quantify redevelopment. Furthermore, it was suggested that new construction through redevelopment may not actually result in a net increase in housing units. Finally, redevelopment potential could also be considered as contributing to a municipality's reserve capacity.

Issue 6*: *Do unique and insurmountable obstacles to development exist within the Pinelands? If so, should future housing projections within the Pinelands be reduced.

Response: An attempt was made to identify regional development constraints that are unique in the Pinelands with the representatives of the County Planning Departments prior to the initial meeting of the Housing Task Force. Although the planners noted that constraints do exist, no insurmountable constraints were identified that are unique to the Pinelands. The members of the Task Force agreed that development constraints that are locality-specific should be considered when housing allocations are calculated on the local level (see **Part 5 Constraints and Opportunities Analysis** for a description of this assessment).

Issue 7*: *Can Pinelands housing projections be based upon a specific, geographically-based carrying capacity?

Response: Limiting development to the Pinelands' intrinsic capacity to support growth (i.e. carrying capacity) is clearly a worthwhile objective. Indeed, the Pinelands land use program, which identifies important natural and agricultural resource areas and severely limits the type and amount of development within them, is predicated upon those areas' carrying capacity. Regional Growth Areas, Pinelands Towns and Pinelands Villages are areas that are more suitable for development (tend to be upland areas, have access to sewer and water service) and, it is far more difficult to quantitatively determine carrying capacity. The Task Force considered water supply as a potentially limiting resource but concluded that it would not be possible to determine carrying capacity for the Pinelands development areas in light of the following:

- Water supplies for much of the Pinelands and surrounding areas are drawn from the Kirkwood-Cohansey aquifer. Redirecting future housing opportunities from Pinelands development areas to surrounding areas does not lessen demand.
- It would be premature and speculative to postulate about water supply capacity until the Commission's study of the Kirkwood-Cohansey aquifer is completed
- Potential depletion or replenishment of groundwater supplies are a function of many factors well beyond the number of new homes which may be built within the Pinelands over the next decade or two. For example, sprawl, which leads to higher amounts of impermeable surfaces, reduces aquifer recharge while the growing potential for the beneficial re-use of treated wastewater can significantly reduce depletive water uses.

The Task Force did suggest that the Pinelands Commission should examine this issue immediately upon completion of the Kirkwood-Cohansey study and work with Pinelands communities in the interim to encourage a variety of water conservation measures and less resource consumptive development designs.

Determination – Inside/Outside Allocation Methodology

Following its evaluation of the issues described above, the Housing Task Force reached the following conclusions regarding the allocation of potential

[4] Atlantic City and Camden are the only municipalities in the seven Pinelands counties that are classified as "Large Cities" in New Jersey Metropatterns, a 2003 report issued by Ameregis Corporation and sponsored by the New Jersey Regional Coalition. Atlantic City and Camden are the only Metropolitan Planning Area (SPA 1) municipalities within the seven Pinelands Counties in the top ten (in South Jersey) in terms of the highest percentage of total housing units that are classified as "Vacant-Other". Both of these communities are also designated Urban Centers under the New Jersey State Development and Redevelopment Plan.

housing through 2020 in South Jersey, inside and outside the Pinelands:

1. An equation would be used to allocate housing demand that relies on data from the New Jersey Department of Labor for population and the amount of developable land inside and outside the Pinelands;
2. Development areas inside the Pinelands would include Regional Growth Areas, Pinelands Towns and those Pinelands Villages that are already served by sewers or slated for sewer service;
3. The inside/outside allocation must necessarily be County-specific;
4. Once the initial allocation is made, the Task Force will consider adjustments based upon specific constraints and/or opportunities that may distinguish some Pinelands municipalities from others.

The Task Force also concluded that its role was to determine how much growth could reasonably be expected and it was the Pinelands Commission's role to identify the techniques to accommodate that level of growth. The Task Force stressed that the Commission should consider any and all appropriate measures to ensure the development of the number of housing units reflected in the assignments in order to meet the needs of the future population.

Part 4 Housing Allocation Methodology

The central focus of the housing demand assessment project was to develop a clear, straightforward approach to apportion future housing need among the Regional Growth Areas, Towns and Villages ***within*** the Pinelands Area. To do so, however, the Task Force needed to evaluate the Pinelands within the larger context of future growth throughout southern New Jersey.

Population Projections

At the outset of the project, the Pinelands Commission decided to rely upon population projections developed by the New Jersey Department of Labor (NJDOL) as its source data. These projections were well suited to the needs of the analysis because they are current (based on official 2000 census figures); they have a baseline methodology that was generally policy neutral; they reflect important variables that uniquely affect the Pinelands[5]; they are based on a lucid, well-documented methodology; and projections are available for all Counties throughout the State through the year 2020.

Pinelands staff members conducted separate meetings with the planning directors from each of the seven Counties within the Pinelands to review the population projections. Following these meetings six of the seven Counties approved the use of the NJDOL data for the project. Atlantic County requested that population projections developed by the Center for Regional and Business Research (CRBR) at the Atlantic Cape Community College be used instead of the DOL projections. The CRBR numbers were based on the most current DOL data, but were refined to reflect variations in local demographics and employment. Before revised population figures from Atlantic County were formally accepted, they were reviewed with the New Jersey Department of Labor and the Office of Smart Growth. Neither of these agencies expressed objections to using these refined figures.

Estimating Future Housing Need

In order to project the number of housing units that might be expected by the year 2020, the projected net population growth for each County was divided by the average number of people per household (pph) for each County, as listed in the 2000 Census. This calculation yielded the number of projected households for each County. *For the purposes of the housing demand assessment, the number of households was considered to be equivalent to the number of housing units*.[6]

Apportioning future housing inside and outside the Pinelands

Since the DOL population projections are created at a county level, ***and*** the Pinelands boundaries cut across county boundaries, a methodology was needed to apportion future population and housing between the Pinelands and Non-Pinelands areas. The comparative population projection methodology, also known as the "Shift-Share" method, was deemed suitable for this task. The Shift-Share method projects the population of smaller regions by apportioning a projection from a larger region based on some ratio. A standard method of apportionment projects population between areas by using each region's current share of the population, or each region's share of past population growth. However, this process fails to account for land as a constraint, i.e. a region may not be able to absorb its projected share of the population if it has insufficient developable land to accommodate growth.

In order to account for land constraints, it was determined that the most accurate method to apportion future growth was to estimate the amount of vacant land that was available within sewer service areas that could accommodate development. Since they were targets for development, this estimate was prepared for the 24 Regional Growth Areas within the Pinelands Area and comparable regions outside the Pinelands Area - State Planning Area (SPA) 1 (Metropolitan) and State Planning Area 2 (Suburban). At the outset of the project, staff conferred with representatives from the seven Counties who agreed that this was a sound approach; however, to account for growth that was occurring in areas outside the Pinelands and outside SPA 1 and 2, Commission staff added "Designated Centers" to SPA 1 and 2 for the purposes of allocating future housing[7]. To balance the equation with comparable sewerable zones inside the Pinelands Area, Pinelands Towns, and Villages within designated sewer service areas, were also added to the equation.

Commission staff then explored with the Counties a variety of ways to collect information, but the amount of vacant developable land at a county level for all the Counties within the Pinelands was not available from a single, viable source. It was suggested that the

[5] The model is employment driven but incorporates a separate equation for the 65+ population which is a significant factor in Ocean, Atlantic and Cape May counties, and the model freezes the group quarters population at 2000 levels and does not include these populations in the projections, a significant factor in Burlington and Cumberland counties.

[6] The Census Bureau defines a household as an occupied non-group quarters housing unit, whereas a housing unit is defined as all units, vacant and occupied, group quarters and non-group-quarters.

[7] For criteria defining State Planning areas and Designated Centers see "The New Jersey State Development and Redevelopment Plan" New Jersey State Planning Commission, Adopted March 1, 2001

Commission conduct a GIS analysis using Land Use and Land Cover data from 2000 in order to obtain this information. Such an analysis would create data from a single source for all the Counties at the same point in time, in a digital format[8].

To calculate the amount of vacant land within growth areas in and outside the Pinelands, land use/land cover data derived from aerial photography obtained from the New Jersey Department of Environmental Protection and Delaware Valley Regional Planning Commission was used. Once the amount of vacant land inside and outside the Pinelands was calculated, those areas designated as public lands, wetlands and wetlands buffers (*50 foot buffer for wetlands outside the Pinelands Area and a 200 foot buffer for wetlands inside the Pinelands Area*) were deleted to arrive at the amount of vacant developable land inside and outside the Pinelands.

In summary, the projected total future population and housing growth was apportioned inside and outside of the Pinelands based on the amount of vacant developable land outside the Pinelands in SPA 1, 2, and designated centers, and inside the Pinelands in RGAs, Towns, and select Villages (collectively known as development areas).

In the final step of this analysis, (County-wide allocation), the ***projected*** increase in the number of future households in each County was multiplied by the percentage of vacant developable land in each County inside and outside the Pinelands within each County. The results of this County-wide allocation are summarized in the ***Table 2***, below. The result of this calculation was the apportionment of future housing units inside and outside the Pinelands boundaries. For a complete and detailed description of the methodology that was developed to perform the inside/outside allocation calculations please see the memo dated June 18, 2004, entitled "*Population and Housing Apportionment Methodology*", (***Appendix 8***).

Local-level (Inside-Pinelands) Assignments

Once the county-level apportionments were completed, housing demand was calculated for each of the RGAs, Towns and select Villages within the Pinelands Area. The methodology for these local-level assignments mirrored the methodology used for the inside/outside allocations. For a complete and detailed description of the methodology that was developed to perform this inside-the-Pinelands allocation, please see the memo dated September 10, 2004, entitled "*Inside Population and Housing Apportionment Methodology*", (***Appendix 9***). This calculation was derived by determining the amount of vacant developable land within each RGA, Town and Village as a proportion of the total amount of vacant developable land in the respective County. The proportion of vacant developable land for each growth area was then multiplied by the total number of future housing units within the Pinelands Area portion of each County by 2020 to derive the local share, or the local level housing assignment.

However, before work on the local level assignments could be considered complete, it was necessary to consider factors that might prevent specific growth areas from accommodating their projection or opportunities that might suggest that a higher projection should be attributed to that growth area. The evaluation of Constraints and Opportunities is described in detail in Part 5, which follows.

Table 2
Projected Housing Units With Wetlands Buffer
(200 feet Inside/50 feet Outside)

County	Projected Net Pop Change	PPH 2000	Projected Households	Inside Allocation	Projected Hshlds/Units IN	Projected Hshlds/Units OUT
Atlantic	58,900	2.59	22,740	65%	14,780	7,960
Burlington	82,310	2.65	31,060	13%	4,040	27,020
Camden	41,570	2.68	15,510	27%	4,190	11,320
Cape May	5,170	2.36	2,190	25%	550	1,640
Cumberland	12,760	2.73	4,670	0%	0	4,670
Gloucester	54,830	2.75	19,940	7%	1,400	18,540
Ocean	166,080	2.51	66,170	19%	12,570	53,600
TOTAL	**421,620**		**162,280**		**37,530**	**124,750**

[8] This is also the beginning of the time frame for the 2020 projections

Part 5 Constraints and Opportunities Analysis

Once the Housing Task Force selected the basic methodology that would be used to allocate future housing units among the RGAs, Towns and Villages throughout the Pinelands Area it assessed factors that could possibly constrain growth or present opportunities for development at levels exceeding the "base" assignment. The Task Force meetings that were held in September and November 2004 focused on evaluating, among an array of 26 possible variables, those factors that had a high probability of actually triggering an assignment adjustment. In order to assist the Task Force in this evaluation, methodologies to calculate the effect on the local level assignment were developed for each of the selected factors. The variables, considered by the Task Force, are listed in ***Table 3***, below.

In evaluating constraints the Task Force distinguished between factors that presented a challenge to development and those that presented an insurmountable obstacle. Insurmountable obstacles were considered to be actual development constraints. A variable was not considered an obstacle to development if it could be accommodated by changing, for example, design or specific site density, or by financing infrastructure improvements. A factor was also considered to be a constraint if the condition was unique to a given community. Issues that were experienced by all communities were not considered to fit the definition of a development constraint. Finally, before a factor could be considered a constraint, for the purposes of adjusting housing projections, it would be necessary to determine whether a simple, reliable method could be developed to evaluate its effect on the housing demand equation.

The methodology that the Task Force decided to use for the constraints/opportunities evaluation was to:

1. Identify development constraints/opportunities of a given development area and quantify such constraints to determine the extent to which a municipality's capacity to accommodate its housing allocation may, in reality, be limited or increased.
2. Identify adjustments that may be needed to meet the goals of the Comprehensive Management Plan or other public goals (e.g. COAH obligations), which could typically result in an allocation increase.
3. Reduce the local allocation and the amount of vacant, developable land to account for housing units that have already been committed for development or built between 1/01/00 and 12/31/03 (an example of a known adjustment).
4. Determine how reserve capacity and Pinelands Development Credits (PDCs) will be reflected in the allocation process.

It is important to note that the Task Force agreed that assignments would be made for Villages that are located within existing sewer service areas, all Regional Growth Areas, and Towns. The affected communities are listed in ***Table 4*** on the following page and illustrated on the ***Base Map***.

The Task Force's review of the range of possible assignment adjustments took place over a 5-month

Table 3
Possible Constraints/Opportunties

POSSIBLE OPPORTUNITIES

Environmental
1. Wetlands/wetlands buffers different from 200
2. Threatened/endangered species
3. Water supply/inter-basin transfer
4. Water quality relating to waste water generation

Infrastructure
5. Sewer availability
6. Schools
7. Roads
8. Electricity
9. Stormwater (depth to seasonal high water table)
10. Cost of Infrastructure

Patterns of Development
11. Land suitability for residential use
12. Land needed for business development
13. Existing development pattern (land tenure)
14. Size of open space needs as an impact on pattern
15. Other vacant land capacity in town

POSSIBLE OPPORTUNITIES
16. Development trends
17. Market efficiency
18. Credit for units approved or built between 01.01.00 and 12.01.04
19. Prior unmet COAH obligations
20. Access to transit
21. Proximity to employment centers
22. Pace and rate of development
23. Redevelopment opportunity
24. Vehicle miles of travel/jobs location/geographic distribution of housing
25. Pinelands Development Credits
26. Reserve Capacity

period from November 2004 to March 2005. During that period, the members of the Task Force concluded that the following 13 factors did not meet the criteria for a constraint for which an adjustment would be necessary.

- Sewer availability
- Schools
- Roads
- Electricity
- Stormwater (depth to seasonal high water table)
- Cost of infrastructure
- Size of open space needs as an impact on development pattern
- Other vacant land capacity in the municipality
- Development trends
- Market efficiency
- Redevelopment opportunity
- Pace and rate of development
- Vehicle miles of travel/jobs location/geographic distribution of housing

The Task Force decided that the remaining 13 factors required detailed consideration. This list included:

- Wetlands and wetlands buffers
- Threatened and endangered species
- Water supply/inter-basin transfer
- Water quality relating to waste-water generation
- Land suitability for residential use
- Land for business development
- Credit for units approved or constructed between 01.01.00 and 12.01.04
- Access to transit
- Proximity to employment centers

A description of the objective of each of these adjustment factors is provided below. Evaluation of the remaining four factors - Existing Development Patterns/Land Tenure, Reserve Capacity, COAH Obligations and Pinelands Development Credits was handled as a separate set of considerations, described in **Part 6 - Policy Considerations** of this Report. Please refer to ***Appendix 10, Assignment Adjustment Calculations*** for a detailed description of the methodologies that were developed to evaluate each of the constraints/opportunities factors and the results that were generated through their application.

Wetlands/Wetlands Buffers

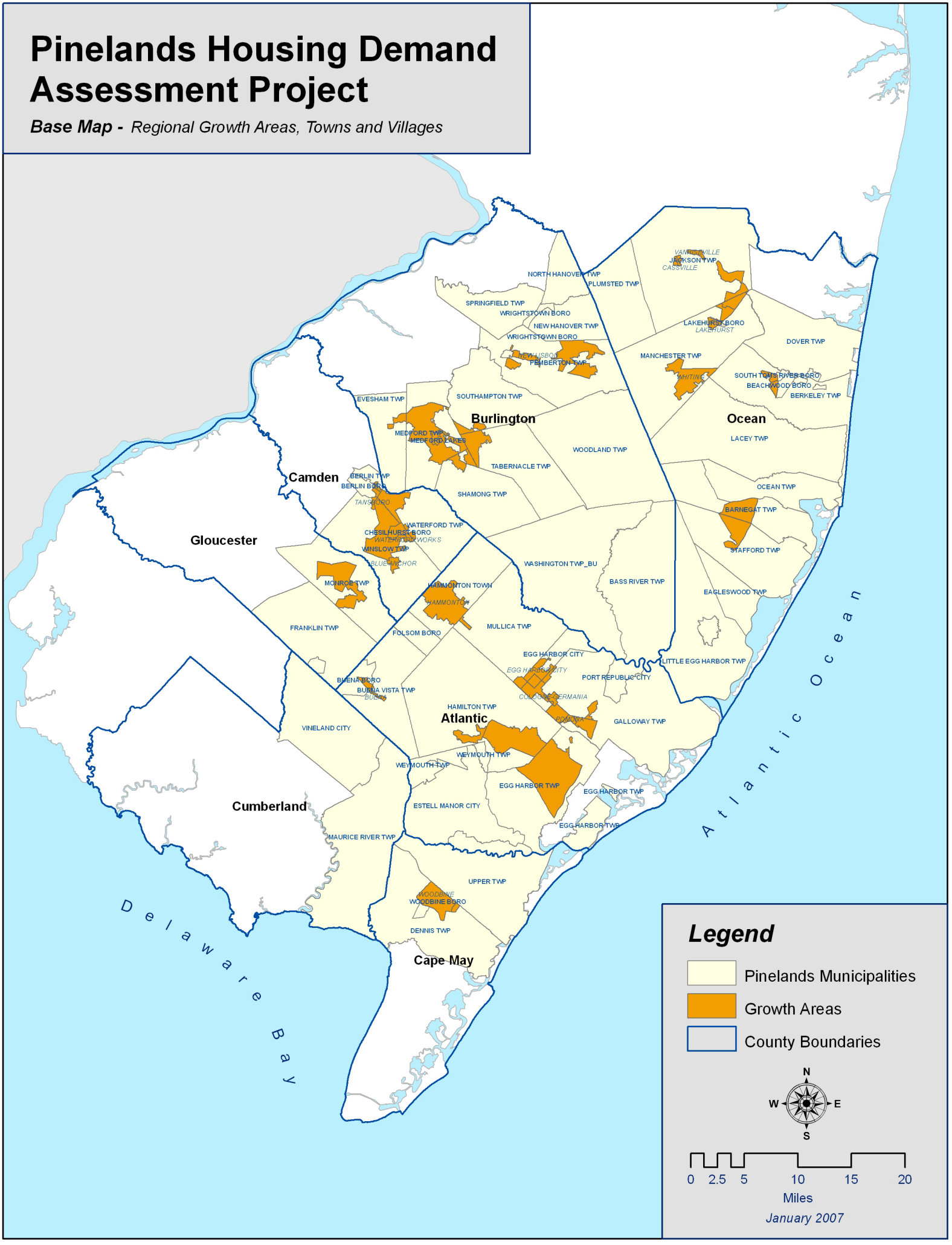
Housing assignments at the local-level were based

Table 4
Regional Growth Areas, Towns and Villages

Municipality	County	Type
Egg Harbor Township	Atlantic	RGA
Galloway Township	Atlantic	RGA
Hamilton Township	Atlantic	RGA
Buena	Atlantic	Town
Buena (Buena Vista)	Atlantic	Town
Egg Harbor City	Atlantic	Town
Hammonton	Atlantic	Town
Hammonton (Mullica)	Atlantic	Town
S. Egg Harbor	Atlantic	Town
Cologne-Germania (Galloway)	Atlantic	Village
Pomona (Galloway)	Atlantic	Village
Evesham Township	Burlington	RGA
Medford Lakes Borough	Burlington	RGA
Medford Township	Burlington	RGA
Pemberton Township	Burlington	RGA
Shamong Township	Burlington	RGA
Southampton Township	Burlington	RGA
Tabernacle Township	Burlington	RGA
New Lisbon (Pemberton)	Burlington	Village
Berlin Borough	Camden	RGA
Berlin Township	Camden	RGA
Chesilhurst Borough	Camden	RGA
Waterford Township	Camden	RGA
Winslow Township	Camden	RGA
Blue Anchor	Camden	Village
Tansboro (Winslow)	Camden	Village
Winslow (Winslow)	Camden	Village
Waterford Works (Winslow/Waterford)	Camden	Village
Woodbine	Cape May	Town
Woodbine (Upper)	Cape May	Town
Monroe Township	Gloucester	RGA
Barengat Township	Ocean	RGA
Beachwood Borough	Ocean	RGA
Berkeley Township	Ocean	RGA
Dover Township	Ocean	RGA
Jackson Township	Ocean	RGA
Manchester Township	Ocean	RGA
S. Toms River Borough	Ocean	RGA
Stafford Township	Ocean	RGA
Lakehurst	Ocean	Town
Whiting (Manchester)	Ocean	Town
Cassville (Jackson)	Ocean	Village
Vanhiseville (Jackson)	Ocean	Village

Pinelands Housing Demand Assessment Project

Base Map - *Regional Growth Areas, Towns and Villages*



primarily on two factors: population growth, and vacant land to accommodate growth. In order to assign housing demand it was necessary to determine the quantity of vacant, developable land that is available within growth areas. Vacant developable land was defined as all vacant land that is not within wetlands or wetlands buffers.

The initial assignment methodology applied an average 200-foot wetlands buffer for growth areas within the Pinelands Area and a 50-foot buffer outside the Pinelands Area. These widths were based on buffer requirements typically applied to development proposals. The Housing Task Force requested that a comprehensive assessment be made of applications for which local approvals were issued and allowed to take effect by the Commission to determine whether the detailed buffer requirement data that could be collected would justify varying from the average 200-foot wetlands buffer in some municipalities. A larger or smaller buffer area would change the amount of land that could be considered available for development which, in turn, would result in a reduction in the number of housing units assigned to a particular growth area.

The methodology developed to assess prior development applications revealed that wetlands buffers were greater than 200 feet in 9 communities and less than 200 feet in 8 others. However, the cumulative affect of these modifications was negligible. Although the Task Force concluded that the changes at the local-level appeared reasonable, the net effect on the housing assignments was extremely minimal.

Threatened/Endangered Species

One of the objectives of the Pinelands Act is to preserve and protect the significant and unique natural and ecological resources of the Pinelands. Consequently, development disturbance in large forested areas that overlap growth areas should be avoided. This analysis was intended to identify large sites within growth areas that may exhibit habitat value for rare plants and animals and which are connected to larger protected areas where development is limited. If such areas were identified they might be deleted from the estimate of vacant, developable land.

The landscape adjustments resulted in significant deductions for a substantial number of growth areas due, in large part, to the broad definition of habitat suitability used to determine the boundaries of the landscape maps. The Task Force concluded that the landscape factor related more to how large and where development areas should be located rather than the estimate of housing need to 2020. It was also noted that the Pinelands Commission was embarking upon a region-wide analysis of natural resources, including rare plants and animal habitats, to determine whether the boundaries of Pinelands land use (management) areas should be revised.

Water Supply/Inter-Basin Transfer

In order to support future housing growth it is necessary to assure that water supply is adequate to meet projected demands without adversely affecting the characteristics of the aquifers from which the water is obtained. For the purpose of the housing demand assessment, an analysis was performed to identify communities that experience significant water supply constraints that would effectively limit the development capacity of a given growth area. To be considered a constraint, a community would have to face a water supply limitation that all the other communities are not similarly experiencing.

This evaluation revealed that western and eastern growth areas have access to several aquifers. Western growth areas also have access to the New Jersey American Water regional distribution system, which has sufficient capability to serve both Pinelands and non-Pinelands demands. In addition, a network of private water purveyors presently provides water supply services to supplement municipal systems.

As stated earlier, the Housing Task Force decided that until the Commission's comprehensive, long range study of the Kirkwood-Cohansey Aquifer is completed enabling a definitive determination of capacity, the Kirkwood-Cohansey Aquifer seems capable of handling projected water supply demands in growth areas. Consequently, no assignment adjustment was warranted. If the conclusions from the Kirkwood-Cohansey study do indicate that water supply constraints exist, a housing adjustment may be required at that time.

Water Quality Relating to Waste-Water Generation

The original focus was to evaluate the carrying capacity of the land to accommodate sewage discharge and the level at which sewage discharge changes the character of a receiving stream. The focus broadened to an evaluation of current water quality of sub-basins within the growth areas. To undertake this evaluation, sub-basins throughout the Pinelands were assessed to determine where Pinelands-characteristic waters are found. Development limitations could be imposed within growth areas that encompass such sub-basins. These limitations are based upon Pinelands studies that confirm that impacts from development (residential, commercial, upland agriculture) have been clearly correlated to water quality characteristics. To evaluate whether this factor constituted a constraint, three factors were considered: sub-basin disturbance levels; Pinelands Commission water quality monitoring data; and DEP non-attainment data.

The results of this analysis revealed that no housing adjustments were justified. This conclusion was based on the fact that the growth area development will not impair relatively undisturbed sub-basins.

Land Suitability for Residential Use

A variety of land uses could be incompatible with residential development. In the case of Pinelands growth areas, three different potentially incompatible land use types were evaluated; Compatible Land Use Zones for airports (CLUZ), lands deemed unsuitable in prior housing assignments, and known contaminated sites according to NJDEP data. This evaluation revealed that CLUZ boundaries extended into RGAs in only three municipalities, all of which are located in Atlantic County, resulting in an overall reduction of only 176 out of more than 18,500 vacant developable acres in the County. Land previously deemed unsuited and still deemed unsuited for development was identified in 14 municipalities. Virtually all of the known contaminated sites represented uses typically found in residential areas, such as gas stations and dry cleaners. Because adjustments in all cases proved to be extremely minor, the Task Force agreed that no land should be deducted to account for these three factors.

Land for Business Development

A number of recent studies demonstrate the effects of land use on municipal fiscal health[9]. Generally, the studies show that the residential and apartment categories draw more resources from the municipal budget than they return in tax revenues. By contrast, commercial and industrial land uses generally contribute more in taxes than they demand in services and thus serve to improve municipal fiscal health. Consequently, the objective of this analysis was to identify those communities that have a significantly small amount of land for non-residential uses. These communities would have limited capacity to support demands associated with extensive residential growth thereby reducing their assignment.

A methodology to account for significant disparities in the amount of land for non-residential uses was developed. The methodology employs an assessment index which was constructed for each of the Pinelands Regional Growth Areas, Towns and select Villages using the Department of Community Affairs' Assessment Class Proportions in Municipal Tax Revenues database.

The methodology, which was based on 2004 assessment data, resulted in housing units being reallocated to areas that have a higher amount of developable acres as well as stronger commercial and industrial bases. However, the application of this factor resulted in either no or extremely minimal changes to the local assignments.

Credit for Units Approved/Constructed as of 12/31/04

The Housing Demand Assessment Project was designed to project housing need between 2000 and 2020 using the most current census data. To avoid double-counting, it was necessary to account for the number of housing units that have been constructed between 2000 and 2004. These units would be subtracted from the local assignments. In addition, it was necessary to account for units with development commitments since 2000 that had not yet been constructed. Land relating to such approved, constructed and/or committed units would also have to be deducted from the vacant developable land figures for all regional growth areas, towns and villages.

This analysis is necessarily dependent upon a definitive count of the number of units constructed since 2000. However, the Task Force concluded that there is no fail-safe system presently in place to confirm the number of permits issued or the number of units actually constructed. Consequently, the Task Force concluded that the issue of "approved units" would be more effectively addressed when each community engages in the zoning ordinance certification process following the conclusion of the Housing Demand Assessment project.

Access to transit

This analysis attempted to adjust assignments for those growth areas that have immediate access to transit facilities. New Jersey Transit developed a transit index (score) that measures the relative strength of an area to support different ranges of mass transit. For this analysis, the transit scores for the Year 2020 were obtained from the NJ Transit for each of the regional growth areas, towns and villages in the study area. The methodology developed to evaluate this factor resulted in a minor shift of housing toward areas more suited to mass transit.

Virtually every community within Pinelands Counties had relatively low transit scores, as compared to other communities throughout the State. As a result no or only minimal assignment adjustments would be made in response to this variable. The application of the methodology resulted in a shift of only 23 housing units for all of the Pinelands growth areas.

[9] Burchell, Robert W. and Listokin, David. "Fiscal Impact Procedures-- State of the Art: The Subset Questions of Nonresidential and Open Space Costs," The Center for Urban Policy Research: New Brunswick, NJ, 1992, p 43; Adelaja, Adesoji and Lake, Mary Beth. "Fiscal Impact Analysis in Land Use Policy". Presentation at the Michigan Land Use Summit. February 2-3, 2004. Land Policy Program, Michigan State University.

Proximity to Employment Centers

This analysis attempted to adjust housing assignments to account for geographic proximity to employment centers among the Pinelands Regional Growth Areas, Towns and select Villages included in the housing assignment analysis. The assignment for those areas in greater proximity to employment centers would be increased.

To perform this evaluation, 30-mile buffers were drawn around the center point of each RGA/town. The US Census Bureau's 2000 Journey to Work data was used to measure the employment centers within these buffers[10]. Once this step was completed, housing assignments were adjusted (if warranted) based on intra-county comparisons.

This methodology reallocated housing opportunities to areas that have higher available developable acreages and were closer to the various regional employment centers. However, as with the changes for transit and business development suitability, the absolute adjustments that were calculated through this analysis were extremely minimal. The largest adjustment was in Ocean County where approximately 2% of the overall county-level assignment was shifted among the affected municipalities. Adjustments to the remaining county-level allocations were considerably less than 1%.

Conclusions Regarding Constraints and Opportunities Adjustments

Following a detailed review of the Constraints and Opportunities Adjustments, the Housing Task Force concluded that the unadjusted assignment figures would be used. This conclusion was based upon the observation that the application of the majority of adjustments described above resulted in extremely minor changes to the municipal assignment. However, the Task Force agreed that the Constraints and Opportunities analysis was an important exercise that was necessary to consider because it helped to assure the rigor of the methodology that was used to derive the local-level assignments.

Although the Task Force concluded that the factors evaluated as constraints and opportunities did not have a significant effect on a regional basis and therefore did not warrant changes to the initial housing allocations, they are important planning considerations that should not be overlooked. The Task Force also recommended that, as the Pinelands Commission develops strategies to implement policies to update housing projections generated through the Housing Demand Analysis, the following steps need to be taken:

1. 2000 – 2020 assignments would be adjusted to reflect development activity that had occurred since January 1, 2000 when each municipality submitted its revised land use ordinance for certification by the Commission.
2. Development should not be permitted to occur unless environmentally sustainable water supplies are realistically available and committed.
3. Land use designations should be reviewed to minimize conflicts between higher density development areas and areas that support viable, local populations of threatened and endangered species.
4. "State-of-the-art" best management practices should be employed wherever possible to reduce development-related impacts.
5. Comprehensive and coordinated planning, which is necessary to provide the community facilities and infrastructure that will be needed to meet future demand, should be actively promoted. Planning needs to be coordinated not only among municipalities but also with state, county and local governments and the private sector. These entities have an affirmative obligation to ensure that the appropriate level of resources is brought to bear to provide adequate facilities when and where they are needed. A variety of tools are available to ensure this issue is addressed including timed growth, impact fees, additional bonding, etc. The Housing Task Force does not recommend one method over another but all of these tools need to be considered. Coordinated planning efforts will be instrumental in ensuring that capital improvements will not be a constraint to development.

[10] An employment center is defined as any municipality that provides more jobs to the regional economy than it provides job seekers. For example, Philadelphia provides 660,050 jobs within its boundary while there are 569,761 people who live in Philadelphia who are in the regional workforce. Therefore, Philadelphia has a positive job to resident's balance of 90,829 jobs. A minor employment center such as Hammonton has much smaller numbers (6,838 jobs to 5,571 job-seekers, for a positive jobs/residents balance of 1,267)

Part 6 Policy Recommendations

Once the Housing Task Force completed its data analysis, approved the allocation methodology and assignment adjustments and endorsed the resulting local level housing assignments, its next task was to evaluate the policy issues listed below:

1. Adjustments that may be needed for Land Tenure;
2. Assignments adjustments to account for Council on Affordable Housing (COAH) obligations;
3. Methods to address reserve capacity;
4. Pinelands Development Credit (PDC) obligations

In subsequent meetings the Housing Task Force (***see Appendix 2 Meeting Minutes _ Pinelands Housing Task Force*** *for the record of the Task Force meetings that occurred between 10-05 and 1-07*) also evaluated policy issues relating to the efficient use of land. The recommendations of the Task Force, relative to each of these issues, are summarized below:

Land Tenure

The objective of this adjustment factor was to account for pre-Pinelands subdivision approvals and multiple-ownership that may result in a probable housing capacity that is potentially inconsistent with the housing allocation assignment. Application of the methodology used to evaluate this factor revealed that adjustments may be needed for land tenure in Barnegat and Whiting. These two municipalities have existing undeveloped subdivisions in multiple-ownership, which constitute more than a significant percentage of their vacant, developable land (more than 30%).

Based upon its analysis, the Task Force concluded that the presence of pre-approved, large but undeveloped subdivisions will not impede the community's ability to accommodate its allocation. Barnegat's assignment of 3,119 units, with 1,804 committed, left 1,315 to be assigned. Although an initial review suggested that the Township lacked sufficient remaining land to accommodate the additional assignment, given that there were approximately 1,200 approved but undeveloped lots in Ocean Acres[11], a closer examination revealed that there were also 600 remaining, uncommitted developable acres in the town. Therefore, its assignment will not exceed the community's capacity.

In Whiting - Manchester 2,093 units were assigned with only 230 units previously constructed, leaving 1,863 units to be accommodated. It was noted that several elderly housing projects are being developed in the center of Whiting. In Roosevelt City, also in Whiting, 183 one-acre lots remain vacant. Therefore, development in Whiting does not appear to be constrained. However, these figures will be reconsidered when the development analysis currently being conducted in conjunction with the Kirkwood-Cohansey study is completed.

Recommendations: Based on these factors, the pre-existing subdivision patterns in Barnegat and Whiting do not appear to be inconsistent with the housing allocation. However, the Task Force noted that if pre-existing patterns do ultimately present an obstacle to accommodating a local assignment, the municipality should be encouraged to consider alternative zone densities rather than adjust its allocation.

COAH

The New Jersey Council on Affordable Housing (COAH) recently published its third round rules that establish fair share requirements for affordable housing. There are three components of COAH's third round methodology: the rehabilitation share, the remaining prior obligation share for the period 1987 – 1999, and the "growth share" generated by state-wide growth between 1999 and 2014. The Task Force concluded that the "growth share" is an inherent component of the 2000 – 2020 housing assignments. The Task Force initially agreed to consider prior, unmet COAH obligations as a factor of future local housing demand. To evaluate the implications of this factor, the Task Force members considered the following three alternative approaches:

- Consider the unmet prior obligation to be included within the local assignment
- Add the unmet prior obligation to the local assignment
- Increase the local assignment if the sum of the unmet obligation and the future need represent an excessive proportion of the housing allocation

It was noted that the Housing Allocations do not obligate a municipality to provide any particular type of housing. The issue, as it related to COAH, was whether the allocation was "reasonable", and whether it was adequate to permit a municipality to meet future affordable housing obligations if it chose to do so.

Recommendations: The Housing Task Force concluded that the assignments should not be adjusted to account for COAH obligations. Furthermore, the Task Force stressed that a local assignment should not be interpreted as a development ceiling and a municipality was free to work toward fulfilling its COAH obligations and address its affordable housing goals either as part of or in addition to its assignment. The Task Force also noted that it is in the

[11] A Barnegat subdivision

Pinelands Commission's interests to assure that COAH obligations can be met within growth areas (either inside or outside the Pinelands Area).

Reserve Capacity

The Task Force considered whether the 2000-2020 housing allocation should be increased to assure the availability of future development capacity to meet housing demands after the planning horizon (2020) has been reached. The Task Force considered three alternative approaches to respond to this issue:

- Don't adjust the local assignment since there are adequate development opportunities inside the Pinelands Area to accommodate the 2000 – 2020 assignment as well as foreseeable post 2020 demand; and some redevelopment opportunities are available throughout the growth areas
- Don't adjust the local assignment but couple housing opportunity with a minimum density (e.g. in development areas to be served by sewer a minimum 2 dwelling units/acre) to ensure that lands are zoned and used efficiently
- Increase the local assignment by a specified percentage to account for development opportunities beyond 2020

The Pinelands CMP is an "End Plan" designating what lands should be developed and which should be preserved. The CMP does not relate to a specific time period. By contrast, the assignment process relied on current census data projected out to a specific planning horizon (2020). The Task Force was asked to consider that horizon and whether the assignments made sense in terms of land-use efficiency. For example, if 2000 acres of developable land were available and 500 units need to be accommodated by 2020, should density be set merely by dividing the number of units by the amount of available land? Would that approach to setting development intensity result in an efficient and effective use of land?

Recommendations: The Housing Task Force decided that the local assignment should not be adjusted solely to account for reserve capacity since there seems to be adequate development opportunities inside the Pinelands Area to accommodate the 2000 – 2020 assignment as well as foreseeable post 2020 demand; and, some redevelopment opportunities are available throughout the growth area. However, as is recommended below, the Pinelands Commission must encourage communities to affirmatively plan for greater land use efficiency to avoid sprawl and meet the diverse housing needs of the population. This will also add to reserve capacity.

PDC Obligations

The Task Force was asked to consider whether PDC obligations should be included within or added to the housing assignments. The Task Force considered three alternative approaches to responding to this issue:

- Don't adjust local assignments; adequate PDC opportunities can be accommodated within the allocations
- Increase the local assignment to ensure sufficient opportunities to use PDCs, based upon an analysis of supply
- Assume a certain percentage of PDC opportunities are accounted for within the current assignments and the remainder would be added to the assignment

One of the initiatives selected by the Commission as an outgrowth of the most recent comprehensive review of the CMP was a reevaluation of the PDC program, both in terms of sending and receiving opportunities. This project is currently underway. Consequently, the Task Force focused on PDC policy objectives, rather than on an explicit calculation of how PDC obligations should be allocated.

Recommendations: The Housing Task Force recommended that the local assignment not be adjusted until the Pinelands Commission completes its current re-examination of PDC use[12]. Once this study is completed the Commission should ensure that reasonable opportunities exist for the use of PDCs without undermining opportunities to achieve local housing assignments.

Efficient Use of Land

The land use/land cover analysis performed in conjunction with this Report revealed that, as of 2000, there were 41,460 vacant, developable acres in Pinelands Villages within sewer service areas, Regional Growth Areas, and Towns. Furthermore, between 2000 and 2020 there will be a demand for 37,530 housing units, based on population projections from the NJ Department of Labor. Consequently, more than sufficient land is available to accommodate the demand for housing into the future. However, merely dividing the 2000 vacant land figures by the 2020 housing demand would result in densities of less than 1 dwelling per acre promoting inefficient land use patterns. To avoid this outcome, the Housing Task Force considered residential densities that would be applicable to all growth areas and that would ensure that land development patterns would result in less land-consumptive development, reduced infrastructure and service costs, and increased preservation of open space.

In the course of their evaluation the Task Force considered the effect of setting density at 3 dwellings per acre on a

[12] Pinelands Development Credit Supply & Demand Study

gross and then a net basis. The analysis of a net residential density was based on discounting land associated with non residential uses and wetlands. The land area associated with these two factors was based on the following:

1) The amount of nonresidential (commercial, public, agriculture) land uses typically comprises 25% of a municipality's total tax base, based on information from the NJ Department of Treasury's Division of Taxation for the 202 municipalities that comprise South Jersey [13]. Consequently, it was assumed that 25% of the vacant developable land may be set aside for non-residential uses and therefore should be excluded from the calculation of vacant residential land.

2) Wetlands, on average, comprise 33% of the vacant lands in the Pinelands' RGAs, Towns and Villages within sewer service areas, based on NJDEP land use/land cover information updated to 2004[14].

Using these factors and a theoretical growth area of 1,000 acres, a series of tables was assembled to test gross residential densities in growth areas. For comparison, a second analysis was performed to test the effect of an overall gross density of 4 dwellings per acre. (*Please see* ***Appendix 12 Analysis of Sustainable Use of Land*** *(10/06/06 Memo to the Housing Task Force "Sustainable Use of Land – Recommended Density", 12/18/06 Memo to the Housing Task Force "Sustainable Use of Land – Analysis Continued) for a complete and detailed description of the analysis undertaken by the Task Force regarding efficient use of land.*)

Based on their analysis the Task Force determined that a Gross Residential Density of 3 dwellings per acre results in an effective Net Residential Density of 4.35 dwellings per acre after wetlands and non-residential lands are discounted. A Gross Residential Density of 4 dwellings per acre would result in an effective Net Residential Density of 5.8 dwellings per acre; however the Task Force concluded that this figure would likely exceed acceptable limits for Pinelands communities. The Task Force considered setting net density at a minimum of 4.8 dwellings per acre to account for a possible higher percentage of non-residential land in some growth areas. However, the ultimate consensus of the Task Force was that density should be expressed as a net figure and should be set at least at 4.5 dwellings per acre after wetlands and non-residential lands are discounted.

Recommendations: Based on their analysis the Task Force recommended that:

- The Pinelands Commission should adopt policies that promote efficient use of land by achieving a target residential density of at least 4.5 dwellings per acre net of wetlands and non-residential land.
- In order to use land efficiently the Pinelands Commission should advocate that municipalities plan centers but that center design standards should vary based on different community types.
- In areas where there is no reasonable expectation that sewer service will be provided and where a rural development pattern has been well-established, the overall residential density should be reduced to 1.5 dwellings per acre. However, a portion of these areas should, nevertheless, be zoned to enable centers at a small scale.
- That the Pinelands Commission's land use policies should promote a range of housing densities and encourage a diversity of housing types.

Office of Smart Growth Population Projections:

At the outset of the Housing Allocation project it was noted that the New Jersey Department of Community Affairs, Office of Smart Growth, will eventually publish population projections for the state that are intended for use by all communities in the State's cross acceptance process. In the interest of conformity, it was noted that the base data for the housing assignments would be adjusted when these projections are finally released. However, because land use efficiency, and not the 2020 or 2025 demand, is deemed to be the central issue of the analysis such adjustment is presently deemed unnecessary.

[13] Source: New Jersey Department of Treasury, Division of Taxation assessment class proportion information, 2003, 2004, and 2005. This data provides a measure of a municipality's tax base for vacant land, residential, agricultural, commercial, industrial, apartment and exempt land uses and was used as a surrogate for the amount of land occupied by each of these uses.

[14] Data source: NJ Pinelands GIS Laboratory in collaboration with the NJ Department of Treasury, Office of Taxation, tax assessment information data (MOD IV)

Part 7 Major Conclusions/Recommendations

The projected 2000 – 2020 local level housing needs are presented in **Table 5**, on the page 22 of this Report. Following is a summary of the major conclusions and recommendations of the Housing Task Force:

1. *Housing Allocation Methodology:* The unadjusted assignment figures, using an average 200-foot wetlands buffer within the Pinelands area, will be used for the 20-year local level housing assignments.
2. *Constraints and Opportunities*: Based on the analysis of constraints and opportunities, described in detail in ***Appendix 10***, the proposed adjustments result in extremely minor changes to the municipal assignment and therefore are not warranted. However, these factors are important planning considerations that can help to mitigate the effects of growth and should not be overlooked.
3. *Adjustment for Units Constructed since 2000*: No adjustment is necessary since there appears to be more than adequate available developable vacant land to accommodate the projected 2020 housing demand. Therefore the overriding issue is whether land is used efficiently.
4. *Future Water Demands*: Development should not be permitted unless environmentally sustainable water supplies are realistically available and committed.
5. *Threatened and Endangered Species*: The Commission should complete its review of land use designations to minimize conflicts between higher density development areas and areas that support viable populations of threatened and endangered species.
6. *Minimize or Avoid Adverse Development Impacts*: "State-of-the-art" best management practices should be employed wherever possible to reduce development-related impacts.
7. *Capital Investments*: Comprehensive and coordinated planning, which is necessary to provide the community facilities and infrastructure that will be needed to meet future demand, should be actively promoted. Planning needs to be coordinated not only among municipalities but also with state, county and local governments and the private sector. These entities have an affirmative obligation to ensure that the appropriate level of resources is brought to bear to provide adequate facilities when and where they are needed. A variety of tools are available to ensure this issue is addressed including timed growth, impact fees, additional bonding, etc. The Housing Task Force does not recommend one method over another but all of these tools need to be considered. Coordinated planning efforts will be instrumental in ensuring that capital improvements will not be a constraint to development.
8. *Development Limitations due to Land Tenure*: The pre-existing subdivision patterns in Barnegat and Whiting do not appear to be inconsistent with the housing allocation. However, if pre-existing patterns do ultimately present an obstacle to accommodating a local assignment, the municipality should be encouraged to consider alternative zone densities rather than adjust its allocation.
9. *Water Supply*: Until the Commission's study of the Kirkwood-Cohansey Aquifer is completed enabling a definitive determination of capacity, the Kirkwood-Cohansey Aquifer seems capable of handling projected water supply demands in growth areas. Consequently, no assignment adjustment is warranted.
10. *Prior COAH (Council on Affordable Housing) Obligations*: Assignments should not be adjusted to account for COAH obligations. Furthermore, a local assignment should not be interpreted as a development ceiling and a municipality is free to work toward fulfilling its COAH obligations and address its affordable housing goals either as part of or in addition to its assignment. Finally, it is in the Pinelands Commission's interests to assure that COAH obligations can be met within growth areas (either inside or outside the Pinelands Area).
11. *Reserve Capacity*: Local assignments should not solely be adjusted to account for reserve capacity since there seems to be adequate development opportunities inside the Pinelands Area to accommodate the 2000–2020 assignment as well as foreseeable post-2020 demand; some redevelopment opportunities are available throughout the growth area; and policies recommended below to ensure that land is used efficiently to avoid sprawl and meet the diverse housing needs of the population will add additional reserve capacity.
12. *Efficient Use of Land*: To assure the efficient use of land the Pinelands Commission should adopt policies that promote the development of centers, achieve a target residential density of at least 4.5 dwellings per acre net of wetlands and non-residential land, and provide for a diversity of housing types. These policies should be applicable to Pinelands Regional Growth Areas, Towns and appropriate Villages except in those communities where there is no realistic expectation that access to sewer service could be provided. In such cases the overall residential density should be reduced to 1.5 dwellings per acre but a portion of these areas should, nevertheless, be zoned to enable centers at a small scale.
13. *Pinelands Development Credits*: Local assignments should not be adjusted until the Pinelands Commission completes its current re-examination of

PDC use. Once this study is completed the Commission should ensure that reasonable opportunities exist for the use of PDCs without undermining opportunities to achieve local housing assignments.

Concluding Note: ***Concluding Note***: There is at least one possible factor that could warrant a near- or mid-term recalculation of local level housing assignments: if data developed in conjunction with the Kirkwood-Cohansey study reveal that future demand for water will exceed the capacity of the aquifer. The Kirkwood-Cohansey study is scheduled to be completed by 2009. It will be necessary to compare the local level assignments to this information when it is formally published. Once this information is evaluated it may be necessary to adjust the housing assignments.

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Table 5
2000-2020 Housing Needs
RGAs, Towns And Villages Within Sewer Service Areas

Management Area Name	County	Growth Area	Vacant Developable (acres)	% of County Total Vacant Acres	RGA/Town/ Village Units
Egg Harbor Twp RGA	Atlantic	RGA	7,120	38%	5,685
Galloway RGA	Atlantic	RGA	1,970	11%	1,573
Hamilton RGA	Atlantic	RGA	3,700	20%	2,954
Buena	Atlantic	Town	220	1%	176
Buena (Buena Vista)	Atlantic	Town	120	1%	96
S. Egg Harbor (Galloway)	Atlantic	Town	800	4%	639
Egg Harbor City	Atlantic	Town	560	3%	447
Hammonton (Mullica)	Atlantic	Town	200	1%	160
Hammonton	Atlantic	Town	3,310	18%	2,643
Cologne-Germania (Galloway)	Atlantic	Village	310	2%	248
Pomona (Galloway)	Atlantic	Village	200	1%	160
Subtotal			**18,510**	**100%**	**14,780**
Evesham RGA	Burlington	RGA	60	2%	65
Medford Lakes RGA	Burlington	RGA	10	0%	11
Medford RGA	Burlington	RGA	1,410	38%	1,531
Pemberton Twp RGA	Burlington	RGA	1,000	27%	1,086
Shamong RGA	Burlington	RGA	310	8%	337
Southampton RGA	Burlington	RGA	240	6%	261
Tabernacle RGA	Burlington	RGA	680	18%	738
New Lisbon (Pemberton Twp)	Burlington	Village	10	0%	11
Subtotal			**3,720**	**100%**	**4,040**
Berlin Boro RGA	Camden	RGA	140	3%	113
Berlin Twp RGA	Camden	RGA	30	1%	24
Chesilhurst RGA	Camden	RGA	500	10%	404
Waterford RGA	Camden	RGA	580	11%	468
Winslow RGA	Camden	RGA	3,240	62%	2,616
Blue Anchor (Winslow)	Camden	Village	370	7%	299
Tansboro (Winslow)	Camden	Village	120	2%	97
Waterford Works (Waterford)	Camden	Village	90	2%	73
Waterford Works (Winslow)	Camden	Village	120	2%	97
Subtotal			**5,190**	**100%**	**4,190**
Woodbine	Cape May	Town	2,330	100%	550
Subtotal			**2,330**	**100%**	**550**
Monroe RGA	Gloucester	RGA	2,400	100%	1,400
Subtotal			**2,400**	**100%**	**1,400**
Barnegat RGA	Ocean	RGA	2,310	25%	3,119
Beachwood RGA	Ocean	RGA	210	2%	284
Berkeley RGA	Ocean	RGA	170	2%	230
Jackson RGA	Ocean	RGA	1,500	16%	2,025
Manchester RGA	Ocean	RGA	1,150	12%	1,553
S Toms River RGA	Ocean	RGA	40	0%	54
Stafford RGA	Ocean	RGA	1,710	18%	2,309
Lakehurst	Ocean	Town	50	1%	68
Whiting (Manchester)	Ocean	Town	1,550	17%	2,093
Cassville (Jackson)	Ocean	Village	470	5%	635
Vanhiseville (Jackson)	Ocean	Village	150	2%	203
Subtotal			**9,310**	**100%**	**12,570**
TOTAL			**41,460**		**37,530**

APPENDIX 1

Resolution # PC4-03-110
Authorizing the Formation
of the Housing Task Force

RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-03-_____

TITLE: To Authorize the Formation of a Task Force to Update Housing Allocations for Pinelands Regional Growth Areas

Commissioner _____ moves and Commissioner_____ seconds the motion that:

WHEREAS, population projections were used in the early 1980s to assist in assigning housing obligations to Pinelands Regional Growth Areas (RGAs); and

WHEREAS, it is timely to re-examine how current population projections relate to future housing opportunities in southern New Jersey and the Pinelands; and

WHEREAS, periodic review of the Pinelands Comprehensive Management Plan (CMP), N.J.A.C. 7:50, is required by the Pinelands Protection Act, N.J.S.A. 13:18A-1 et. seq., to ensure a living and workable document; and

WHEREAS, Section 7:50-7.11 of the Pinelands CMP requires the Executive Director to comprehensively review the CMP and all actions taken by the Commission or the Executive Director within five years of the completion of the last review, and to submit a report to the Commission detailing any recommended amendments to the CMP; and

WHEREAS, in 2001, the Commission commenced the third review of the CMP by identifying two priority topics on which to focus - Permanent Land Protection and Regional Growth and Development; and

WHEREAS, four public forums were held in 2001 and 2002 to obtain input in the areas of Practitioner Issues, Permanent Land Protection, Regional Growth and Development, and Critical Issues and Opportunities; and

WHEREAS, a special meeting was held by the Commission in December 2002 to review the input from the forums and possible next steps; and

WHEREAS, in March 2003, Commission staff provided Commissioners with several items to facilitate decisionmaking by the Commission, including vision and goal statements for Permanent Land Protection and Regional Growth and Development, a series of alternative strategies and initiatives related to these two topics, a summary of staff recommendations for action, and a list of other issues outside of the scope of the Commission's two primary focus areas; and

WHEREAS, the Commission held a special meeting on June 7, 2003 to consider the strategies and initiatives; and

WHEREAS, the Commission selected strategies and initiatives to guide its future Permanent Land Protection and Regional Growth and Development efforts; and

WHEREAS, these decisions were memorialized in Commission Resolution PC4-03-78, dated July 11, 2003; and

WHEREAS, a schedule to implement the 20 initiatives selected by the Commission was prepared in August 2003; and

WHEREAS, the first initiative to be implemented under the topic of Regional Growth and Development calls for the creation of a task force to update housing demand estimates based on available information, and after considering the general effect of key constraints and opportunities on future development, apportion the projections to the Pinelands and allocate the RGA obligation amongst the 24 RGA towns; and

WHEREAS, a draft charge for the task force and list of suggested members was presented to the CMP Policy and Implementation Committee at its meetings on August 29, 2003 and September 26, 2003; and

WHEREAS, the approach attached hereto and dated October 8, 2003 proposes an efficient and effective means of estimating future housing demand in the Pinelands; and

WHEREAS, the approach also recommends that the Commission establish a Task Force, the Chair and Vice-Chair of which shall be members of the Commission; and

WHEREAS, pursuant to N.J.S.A. 13:18A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period the Governor shall approve same, in which case the action shall become effective upon such approval.

NOW, THEREFORE BE IT RESOLVED that:

1. The Chairman and Executive Director are authorized to form a Housing Task Force in accordance with the attached description, dated October 8, 2003.

2. The Chairman shall appoint two members of the Commission to serve as the Task Force's Chair and Vice-Chair.

3. The Executive Director is authorized to allocate the necessary staff resources to assist and support the Housing Task Force and the Infrastructure Committee in these efforts.

4. The Chair and Vice-Chair of the Task Force will periodically update the Policy and Implementation Committee and the Commission on the activities and findings of the Housing Task Force.

Record of Commission Votes

	AYE	NAY	NP	ABS		AYE	NAY	NP	ABS		AYE	NAY	NP	ABS
Ashmun					Hagaman					Tomasello				
Avery					Kowalski					Westergaard				
Brown					Lee					Wilson				
Campbell					Lloyd					Wuillermin				
Ficcaglia					McIntosh					Florio				

Adopted at a meeting of the Pinelands Commission Date: _____

_____
John C. Stokes
Executive Director

_____
James J. Florio
Chairman

ESTIMATING FUTURE HOUSING DEMAND IN THE PINELANDS
October 27, 2003

Overview of the Approach

The Pinelands Commission seeks to update and revise, as necessary, housing capacity projections for Pinelands Regional Growth Areas utilizing current population projections. County planning offices in southern New Jersey will be asked to review current population projections and help to determine how much population growth should be anticipated within the Pinelands Area. A broad-based Task Force of government and non-governmental organizations will then recommend ways to apportion future growth within the Pinelands amongst the 24 Regional Growth Areas, taking into account the land use and environmental programs of the Pinelands Comprehensive Management Plan (CMP), development opportunities elsewhere in the Pinelands, and general constraints and opportunities that may influence those Areas' ability to accommodate future growth.

Tasks

1. Each of the seven Pinelands county planning offices shall be asked to review the most recent Department of Labor county level projections and other more recent data, as appropriate, and advise the Commission staff of any necessary adjustments to the Department of Labor projections and the reasons therefore.

2. These county level projections, if adjusted, shall be reviewed with the Office of Smart Growth and the Department of Labor. To the extent that any questions about the adjusted projections exist, the Commission staff shall work with the Office of Smart Growth, the Department of Labor and the appropriate county(ies) to resolve them.

3. Based upon general, region-wide influences, constraints and opportunities (such as available land, the land use and environmental programs of the CMP, infrastructure, job and housing markets), the Commission staff, in consultation with each of the county planning offices and the Office of Smart Growth, will prepare several different scenarios for allocating future population and housing growth to areas within and outside the Pinelands. In doing so, the Commission staff will review historical population and land use information and consider the relevance of that information to this effort.

4. The Housing Task Force will review these scenarios, adjust them as appropriate, and apportion the projected Pinelands growth to Regional Growth Areas to the extent that such growth can be accommodated within the framework of the Comprehensive Management Plan. In doing so, the Task Force shall:

    a. Develop and apply a methodology to allocate Pinelands projections:

        i. Among the 24 RGAs

ii. Translate the number of new units to maximum densities (base and PDC), taking into account the historical relationships between assigned densities and likely as-built densities

iii. Consider whether, and to what degree, there should be reserve capacity for growth beyond 2020

b. Consider the general effect of sub-regional constraints and opportunities on the amount and location of future growth within the Pinelands and within the various Regional Growth Areas, including but not necessarily limited to:

i. Estimated development opportunities in other Pinelands management areas

ii. Present and projected development trends and job and housing markets

iii. Sub-regional constraints and opportunities, including but not limited to, available land and present and projected infrastructure and environmental conditions

iv. Community character, reflecting the need for future non-residential development, open space and community facilities

5. The Housing Task Force will submit its recommendations to the Pinelands Commission. In doing so, the Task Force shall identify the assumptions used to apportion future housing demand amongst Pinelands Regional Growth Areas and present, as applicable, alternative scenarios based upon different assumptions.

The Housing Task Force

Members of the Housing Task Force will be drawn from key state agencies, Pinelands counties, Pinelands municipalities, the Pinelands Commission, non-governmental organizations, and the commercial and housing development communities. The Chairman of the Pinelands Commission will appoint two members from the Commission to serve as the Task Force's Chair and Vice-Chair. When considering the effect of important region-wide influences, constraints, and opportunities on future housing projections within the Pinelands, the Task Force may consult with other governmental and non-governmental organizations that have useful data or other information. Commission staff will help coordinate the efforts of the Task Force and the Infrastructure Committee, and keep the Governor's office apprised of progress and findings.

Organizations to be invited

- Pinelands Commission (2 members to serve as Chair and Vice Chair)
- Department of Community Affairs
- Department of Environmental Protection
- Department of Transportation
- Coalition for Housing and the Environment
- 7 Pinelands Area County Planning Offices (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Ocean)
- New Jersey Builders Association
- Pinelands municipalities (a municipal representative from each of the 5 Pinelands Regional Growth counties, to be designated by the Pinelands Municipal Council)
- Pinelands Preservation Alliance
- State Chamber of Commerce

Guiding Principles

In carrying out this charge, the Task Force will adhere to the following guiding principles:

- All work and deliberations of the Task Force are to be transparent to the public. To promote transparency, at a minimum, all Task Force meetings will be open to the public and provide opportunity for public comment; the Commission's web site will be used to post information relating to the Task Force; public meetings will be scheduled at key decisionmaking points during the process; and the Task Force will prepare a final report that describes its activities and recommendations.
- The Task Force's Chair and Vice Chair shall periodically report to the full Commission on progress and ensure that the Task Force consults with other government and non-governmental organizations that have expertise in the key issues confronting the Task Force.
- The Task Force will strive for consensus in developing its recommendations. If consensus cannot be achieved, the recommendation(s) will reflect areas of agreement by the majority, with minority opinion reported where appropriate.
- The Task Force's recommendations will be guided by this charge, the goals enunciated in

the Pinelands Protection Act for the Comprehensive Management Plan and the land use and environmental programs of the Plan itself.

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HOUSING DEMAND ASSESSMENT PROJECT
F i n a l R e p o r t

January, 2007

APPENDIX 2

Meeting Minutes
Pinelands Housing Task Force

Summaries of the Proceedings from Following Meetings:
07.01.04
08.19.04
09.16.04
11.19.04
02.17.05
04.28.05
06.08.05
10.13.05
10.12.06
1.11.07

MEMORANDUM

To: *Pinelands Housing Task Force*

Subject: July 1, 2004 Meeting
Meeting Summary

Compiled By: David M. Kutner,
Director of Special Programs

Date: July 6, 2004

ATTENDING:

Alan, Avery, Task Force Chair	Pinelands Commission
Robert Brewer, Planning Director	Cumberland County
Rick Brown, Supervising Environmental Specialist Coastal Resources	Department of Environmental Protection
Paul D. Chrystie, Executive Director	Coalition for Housing and the Environment
Mike DePalma, Construction Codes Dept	Monroe Township
Alan Feit, Township Administrator	Medford Township
Doug Griffith, Director, Division of Planning	Camden County
Christina Lado, Assistant Commissioner for Intergovernmental Relations	Department of Transportation
Ed McGlinchey, Public Works Director	Winslow Township
Peter Miller, Township Administrator	Egg Harbor Township
Carleton Montgomery, Executive Director	Pinelands Preservation Alliance
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
Mark Remsa, Planning Director	Burlington County
Paul Stridick, Deputy Director, Division of Housing (for Charles Richman)	Department of Community Affairs
Jim Smith, Planning Director	Cape May County
Joan Verplanck, President	State Chamber of Commerce
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County
Betty Wilson, Task Force Vice Chair	Pinelands Commission

ABSENT

Charles A. Richman, Assistant Commissioner	Department of Community Affairs
John Kennedy, Township Administrator	Jackson Township

OTHERS:

Rick Franzen	Tabernacle Committeeman
Paul Leaken	Burlington County Times
Jay E. Mounier	Interested Public
John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
Frank Donnelly, Economist	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

Meeting Purpose:

1. Introduce the Members of the Task Force
2. Review the Need for the Project
3. Review the Project Scope/Schedule
4. Review the Allocation Methodology [Alternatives and Variations]
5. Discuss Development Constraints
6. Discuss Reserve Capacity
7. Review Next Steps
8. Schedule Subsequent Meeting Dates

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

Introductions, Project Need, Scope and Schedule:

- Project emanated from 3rd CMP review, completed in 2003. The population and housing demand figures underlie density allocations in growth areas. This data has not been reviewed since the CMP was originally adopted in 1980. Many projects will be tied to this analysis, including Kirkwood/ Cohansey Aquifer demand analysis. Several meetings with Counties have already occurred to evaluate population projections.
- Reviewed project schedule.

Allocation Methodology:

- Reviewed 4 step methodology:
  1. Predict future population, use Department of Labor projections
  2. Determine need for housing based on future population
  3. Determine available vacant, developable land in growth areas
  4. Apportion housing (inside/outside Pinelands)
- Compared DOL 1990 projections for 2000 with the 2000 census, overall accuracy within 3%. The absolute difference between the projections and the actual count was 63,000 people for entire South Jersey region.
- Discussed accuracy at county level (count varied from 4% under to 10% over).
- It was noted that the DOL may not have over-projected the count. The area may have underperformed by not delivering the number of housing units that was needed to meet demand.
- It was noted that the DOL data is a starting point for analysis. The Task Force will need to determine how to apportion growth and how to establish reserve capacity for demand after 2020.
- It was noted that DOL data do not directly account for local zoning or the development policies of the CMP.
- All Counties were offered the opportunity to review the DOL projections and provide alternative data. All Counties agreed with the use of DOL projections except Atlantic County which recommended the use of a more recent population projection. The Office of Smart Growth and the Department of Labor were consulted regarding the Counties' final recommendation.
- To obtain the estimate of the need for future housing, the projected County population was divided by the average number of persons per household for each County.
- It was suggested that the average number of persons per household should account for varying development patterns.
- It was suggested that the apportionment of housing should also consider the type of housing that the market will demand based on demographic characteristics.
- It was noted that the analysis focused on housing within the regional growth areas, towns and villages inside the Pinelands and state planning areas 1 and 2 outside the Pinelands. The analysis was extended to include centers, towns and villages. As the process advances to the municipal level, the Task Force may need to consider additional areas to accommodate demand.

- 1995-1997 DEP land use/land cover data was used to determine vacant, developable land within the Pinelands:
  - Used aerial photographs with the GIS system
  - Created 2 land use layers one for lands within the Regional Growth Areas, Towns and Villages and one for lands outside the Pinelands
  - Using database, exclude all developed lands based upon land use and land cover codes
  - All public lands were excluded from the estimate of vacant developable land
  - The results were expressed as a percentage of total land inside and total land outside the Pinelands. These percentages were applied to the projected population to determine 2020 population in and outside the Pinelands; and they were also applied to the projected # of housing units to determine future housing need in and outside the Pinelands
- Land use/land cover data, based on 2000 aerial photography, was compiled by the Delaware Valley Regional Planning Commission (DVRPC) for those counties within the Commission's jurisdiction (Camden, Gloucester, and Burlington). Since this data was more current than the DEP data, it was used to estimate vacant developable land for these Counties.
- Variations to amount of vacant developable land included:
  - Variation 1: deleted all wetlands
  - Variation 2: used 300 foot wetlands buffers
  - Variation 3: used 200 foot buffer inside/50 foot buffer outside (determined to be more realistic)
  - Variation 4: used 2000 DVRPC land use data for Camden, Gloucester, and Burlington Counties
- Data was used solely to differentiate between units within and outside the Pinelands. The objective is to establish a general distribution of demand.
- Counties outside DVRPC jurisdiction were given the opportunity to update DEP data but it was discovered that, in Ocean County, an adjustment between 1997 and 2000 did not alter the inside/outside ratio.
- Summary
  - Only evaluated areas where development will be targeted
  - Deleted public lands within development areas
  - Deleted wetland areas within development areas
  - Deleted area within buffers to the wetlands
- It was noted that development activity that occurred between 2000 and December 31, 2003 would be credited against the 2020 allocation (units developed within this period will be subtracted from the allocation). Credit will be based upon the number subdivision units approved within the period regardless of whether the units have, in fact, been constructed.

Development Constraints:

- It was noted that any identified constraint must be an insurmountable obstacle to development.
- Constraints will be considered as the amount of future housing is apportioned to individual growth areas.
- It was suggested that certain constraints may need to be considered on a regional basis.
- It was noted that various factors will affect the extent to which a given constraint may affect development (e.g. water supply may constrain development capacity but the application of conservation measures may offset such constraints).
- It was noted that DEP has been very slow to issue water allocation permits, this is not within local control. It was also noted that communities are not electing to extend services which effectively constrains development.
- The task force will need to determine how many units should be apportioned among the growth areas and then consider what actions will be needed to ensure that this development can, in fact, occur.

- It was noted that if development within the Pinelands presently must be supported with services that must be imported from areas outside the Pinelands, is it appropriate to require the absorption of additional future growth within the Pinelands. Should additional growth be permitted if it cannot be supported by the service capacity within the Pinelands?
- It was suggested that economic constraints need to be considered however it was noted that these factors are unrelated to carry capacity constraints.
- The current housing demand estimates represent a reasonable starting point for analysis, but alternatives must be based on definable and quantifiable factors to ensure an objective, transparent allocation process.
- May need to account for uncertainties but there must be agreement with respect to how such uncertainties are quantified and addressed.

Reserve Capacity:

- How much is needed, how should it be reserved, and where should it be reserved?

Next Steps:

- Seven meetings on the schedule, subsequent dates agreed to are:
  - August 19
  - September 16
  - October 21
  - November 19
  - February 17
  - March 17
- Topics for subsequent meetings:
  - Consensus regarding I/O Allocation Methodology
  - Review and Recommend Apportionment Methodology within the Pinelands
  - Review and Recommend Reserve Capacity
  - Review and Recommend Sub-Regional Constraints
  - Recommend Densities within the Growth Areas

It was noted that one of the key objectives for the Task Force will be to reach consensus regarding each step of the apportionment process as it proceeds. Consequently, Task Force members were encouraged to provide suggestions on alternatives for consideration prior to the next meeting in the interest of reaching consensus on the Inside/Outside Allocation Methodology.

I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if there are any omissions or inaccuracies. I can be reached by email at david.kutner@njpines.state.nj.us, or by phone at 609-894-7300 x 111.

PLEASE NOTE: The next meeting of the HTF is scheduled for
Thursday, August 19, 2004 at 10:00 a.m.
The meeting location has changed to the Woodland Township Building
PO Box 388, Main St., Chatsworth, NJ 08019

MEMORANDUM

To: ***Pinelands Housing Task Force***

Subject: August 19, 2004 Meeting
Meeting Summary

Compiled By: David M. Kutner,
Director of Special Programs

Date: August 30, 2004

ATTENDING:

Alan, Avery, Task Force Chair	Pinelands Commission
Robert Brewer, Planning Director	Cumberland County
Rick Brown, Supervising Environmental Specialist Coastal Resources	Department of Environmental Protection
Mike Crols (for Paul D. Chrystie, Executive Director)	Coalition for Housing and the Environment
Alan Feit, Township Administrator	Medford Township
Doug Griffith, Director, Division of Planning	Camden County
John Dourgarian, Assistant to the Commissioner	Department of Transportation
Theresa Lettman (for Carleton Montgomery Executive Director)	Pinelands Preservation Alliance
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
Mark Remsa, Planning Director	Burlington County
Paul Stridick, Deputy Director of the Division of Housing	Department of Community Affairs
Joan Verplanck, President	State Chamber of Commerce

ABSENT

Mike DePalma, Construction Codes Dept	Monroe Township
John Kennedy, Township Administrator	Jackson Township
Ed McGlinchey, Public Works Director	Winslow Township
Peter Miller, Township Administrator	Egg Harbor Township
Jim Smith, Planning Director	Cape May County
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County
Betty Wilson, Task Force Vice Chair	Pinelands Commission

OTHERS:

Robin Murray	Office of Smart Growth
Pamela Weintraub	Cumberland County
John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
Frank Donnelly, Economist	Pinelands Commission
Kathy Whitton	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

Meeting Purpose:

1. Issues/responses from the 07.01.04 meeting
2. Consensus regarding I/O Allocation Methodology
3. Discuss potential topic for subsequent meeting
4. Review and Recommend Apportionment Methodology within the Pinelands
5. Public Comments

Materials Distributed:

- 08.17.04 letter from Paul Chrystie re: Apportionment Issues (*via e-mail*)
- 08.06.04 Issues/Responses memorandum (*via e-mail*)
- 07.01.04 Meeting Summary (*via e-mail*)

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

Preliminary:

- The change in meeting location was noted. Participants indicated that Woodland Township was an acceptable alternative to the Tabernacle location.
- It was noted that the primary purpose of the meeting was to reach consensus regarding the Inside/Outside Allocation Methodology

Issues/responses from the 07.01.04 meeting:

Staff reviewed a 08.06.04 memorandum outlining issues raised at the first Task Force meeting and responses developed by staff

Issue 1**:** *Should a uniform persons-per-household figure be used to calculate housing demand as opposed to County-specific household sizes listed in the 2000 Census.*

- Task Force members reviewed the staff analysis. It was noted that using a uniform pph for South Jersey versus County-specific figures results in little difference in the calculated housing demand.
- Task Force members expressed no objections to using County-specific figures. However, it was noted the regional household size has been declining and that there is no reliable source that indicates that housing size will not continue to follow this trend. It was noted that this characteristic may justify retaining future reserve capacity
- It was noted that various factors could offset declining household size (e.g. influx of immigrant populations that tend to have larger household sizes, children living with parents longer, households having children later in life, etc.)

Issue 2: *Should differentiate among housing types based on the demographic characteristics of the population.*

- Indicated that housing types should be considered when the Task Force evaluates housing allocations at the municipal level
- Noted that reflecting an increase in elderly population as a portion of the overall population masks the fact that the majority of expected growth will occur in this population segment – figures, and the comparisons that are derived from them, need to be expressed in terms of age cohorts

Issue 3**:** *Prior approved units that have yet to be constructed should be considered as development commitments, not as vacant and developable for the purpose of the apportionment.*

- It was noted that staff has requested information from the Counties regarding the number of approved but yet-to-be developed subdivisions to be used as a credit against the future allocations. Commission records are also being accessed for this information.
- The approach to discounting (crediting) undeveloped units as well as the land that would be needed to accommodate those proposed units was questioned. It was clarified that the land area would be

deducted from the available developable land at the municipal level of evaluation, as part of the "fit" analysis

- Noted that to calculate development credit at the RGA level (i*nside-Pinelands allocation only*) it will be necessary to collect subdivision activity from ***all*** counties. Data collection should be based on the "Suggested Methodology for Preparing Subdivision Plans in GIS" memorandum prepared by staff, dated June 22, 2004
- It was suggested that limiting the date of evaluation to the period 01.01.00 to 12.31.03 may not capture information for all subdivisions that have been approved (with extensions) but are not constructed

☞***NOTE***: Schedule a meeting with Counties to consider methods to obtaining reliable counts of approved but not constructed subdivision units and the number of units constructed after 2000.

- Staff was asked why a credit would be calculated for the inside-Pinelands allocation only. In response, it was noted that in order to conduct the inside/outside allocation (at the county-wide level) the analysis establishes a planning target for the Pinelands as of 2000 and uses data from current aerial photography and census. Attempts were made to determine if pre-2000 development commitments were significant for those Counties for which current (2000) data was not available (Ocean, Atlantic, Cumberland and Cape May), since current data was available for Burlington, Camden and Gloucester from the Delaware Valley Regional Planning Commission. If the number of such units, either outside or inside the Pinelands, was considerable, it would affect the overall allocation. Based on a test of data from Ocean County it was concluded that the difference between the number of inside and outside pre-2000 development commitments was not significant, and therefore it would not be necessary to refine the data at the macro level to reflect such commitments. It was noted that the affected Counties agreed with this conclusion.
- It was noted that DCA does retain data on issued building permits at the municipal level based on lot and block basis. Paul Stridick offered to attempt to obtain this information. If available, this data would provide a reliable data check for the municipal-level allocation.
- It was agreed that a *final subdivision approval* (not preliminary or General Development Permits) constitutes a generally acceptable surrogate for certificates of occupancy and will be factored into the inside/outside allocation.
- It was agreed that outstanding, large General Development Permits that currently exist will be factored into the allocation equation during the municipal-level ("fit") analysis.

Issue 4**:** *The estimate of future housing demand seems to far exceed actual past demand trends experienced in certain areas within the Pinelands suggesting that the demand projections may be overstated.*

- Staff proposed that the explanation for this apparent discrepancy is that the original allocation methodology does not differentiate among development potential in villages, towns and RGAs within the Pinelands and the state planning areas outside the Pinelands. To address this issue, staff reviewed an approach to weight development capability in these areas, described in an August 2nd memo from staff entitled "*Allocating Units – Standard Versus Weighted Methods*" (included with the 08.06.04 Issues/Responses memo).
- Task Force members reviewed a second weighting option that excludes Pinelands villages from the allocation equation. The historic development patterns suggest that these areas have experienced little or no development, will not become sewered, permitted densities tend to be extremely low, they are remote from employment centers, and they tend to have significant environmental constraints to development (wetlands, sensitive watersheds, T&E, etc.)
- It was suggested that since these areas are clearly not growth areas they should not be factored into the allocation calculation

- It was suggested that the allocation should be a "pure" analysis, differentiation should occur as a factor of the "fit" analysis, not as part of the overall allocation
- It was concluded that at the macro level of evaluation (the inside/outside allocation) the weighting methods would distort the analysis. Should keep those areas in Villages that have likelihood for growth in the equation and take those areas that do not out of the equation.
- It was noted that the DEP has electronic maps of approved sewer service areas. Rick Brown agreed to attempt to obtain and provide this information. Those villages that have area within approved sewer service areas should be considered as developable and therefore treated as growth areas.
- There was consensus that the original allocation methodology will be adjusted to include villages that have existing or planned sewer service areas as developable, the remainder will be deleted from the equation. It was also agreed that a weighting method would not be used.

Issue 5**:** *Redevelopment potential should be a factor of developability. A large amount of the future housing demand can be accommodated outside of the Pinelands, through redevelopment of existing urban centers.*

- Staff reviewed redevelopment credit analysis.
- It was noted that Pleasantville, in addition to Atlantic City, has significant redevelopment potential. Although Atlantic City has potential, it is not likely to experience significant redevelopment within the immediate future.
- It was noted that there has been substantial state emphasis to promote redevelopment and that this potential should be factored into the equation.
- It was stressed that at this stage the Task Force is engaged in the inside/outside allocation. As the Task Force advances to the inside allocation there are several initiatives it can choose to promote, such as TDR, to encourage redevelopment at the RGA (municipal) level
- It was suggested that new construction through redevelopment may not actually result in a net increase in housing units
- It was suggested that there is no reliable, objective and reasonable method to quantify redevelopment.
- It was noted that it will be necessary to determine how to account for development after 2020, redevelopment potential may be the appropriate response
- COAH obligations should be considered in addition to the allocation because communities tend not to zone for affordable units. Prior COAH obligations that have not been addressed should be factored into the allocation, although this is a difficult issue to address
- Affordable housing is an issue that should be addressed at the municipal level, need to ensure that growth areas comply with COAH obligations

Issue 6**:** *Insurmountable obstacles to development may exist in some locations and should be an allocation factor.*

- Are constraints significantly different inside the Pinelands than outside? This does not appear to be the case. It was noted that the Counties concluded that there were no regional constraints to development but that such constraints may exist on the local level that will be evaluated when the allocation process advances to this stage.

Issue 7**:** *Resources should not be imported to support more growth within the Pinelands*

- Very difficult to measure carrying capacity

Determination regarding I/O Allocation Methodology:

The consensus of the Task Force is that with regard to the allocation of potential housing through 2020 in South Jersey inside and outside the Pinelands:

- The members agree to use a simple equation that relies of Department of Labor data on population and the amount of developable land inside and outside the Pinelands;
- Development area inside the Pinelands includes regional growth areas, Pinelands towns and that portion of Pinelands villages that is already served by sewers or slated for sewer service
- The inside/outside allocation will be county-specific
- There is a need to keep in mind a number of issues, probably the most critical of which relates to constraints to development, and that these issues will be revisited as the Task Force advances through the planning process.

It was noted that the role of the Task Force is to determine how much growth is reasonable to expect and it is the Commission's role to identify the techniques to achieve that level of growth. The Task Force does have the latitude to recommend needed policies.

Next Topic:

- Review and recommend an allocation methodology within the Pinelands

Public Comment:

- Robin Murray, Deputy Director, Office of Smart Growth, noted that the state is presently engaged in the Cross-Acceptance process, wanted to ensure collaborative communication.
- It was noted that OSG expects to contract with a consultant to develop population projections in conjunction with the Cross-acceptance process and that these projections should be factored into the Pinelands Housing Allocation.
- The Task Force was assured that the Counties will have input into the economic analysis and the population projections that will be derived by the OSG consultant
- It was requested that the Pinelands Housing Allocation extend to 2025. In response, it was noted that the Pinelands plan is, in essence, an "end plan". It is not a growth management plan that attempts to plan for a specific horizon. Consequently, it is implicit that the Plan looks beyond 2020.
- It was noted that OSG is pursuing TDR and has hired a staff planner that will focus on promoting this technique.
- Kramer Hill will be replacing the 1,000+/- affordable units that will be lost through development with infill housing in the contiguous municipality
- The OSG consultant will be examining trend and plan scenarios. A copy of the RFP will be provided to the Task Force.
- Copies of the State Plan and the Preliminary Plan and all related documents are on disk and were offered to those members who requested a copy

Other Issues:

- Is it possible to determine the zoned capacities of the growth areas? What is the "no-action" course? It was noted that information that hopefully satisfies this question will be developed as the analysis advances. This will become part of the report that will be developed.

Running Issues List

Staff will retain a running "***ISSUES LIST***" that the Task Force will attempt to completely resolve by the conclusion of the Housing Allocation Project. This list will accompany all future minutes.

1. Possible declining household sizes
2. Units constructed since 2000 need to be factored into analysis
3. Projects approved prior to 2000 but not constructed should still be considered committed
4. Discount land in villages that is not sewer serviced, retain land that is sewer-serviced
5. Consider redevelopment potential inside and outside the Pinelands in detail
6. Need to consider affordable housing at the municipal level to determine effect on allocation, need to consider what has not been built under prior obligations
7. Should constraints factor into inside/outside allocation
8. Need to factor constraints into equation at the municipal level of analysis – unacceptable level of ecological impacts should not be tolerated (actions that alter the character of the Pinelands should not be permitted); investment constraints need to be considered differently
9. Does zoning in non-sewered areas appropriately reflect development potential
10. May need to enhance growth potential, through zoning and other techniques, in areas where growth should occur
11. Determine the major economic drivers and transfer development rights to those areas, perhaps shift development outside the Pinelands
12. Jobs/housing ratio needs to inform local allocations

I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if there are any omissions or inaccuracies. I can be reached by email at david.kutner@njpines.state.nj.us*, or by phone at 609-894-7300 x 111.*

PLEASE NOTE: The next meeting of the HTF is scheduled for
Thursday, September 16, 2004 at 10:00 a.m.
at the Woodland Township Building
PO Box 388, Main St., Chatsworth, NJ 08019

MEMORANDUM

To: *Pinelands Housing Task Force*

Subject: September 16, 2004 Meeting
Meeting Summary

Compiled By: David M. Kutner,
Director of Special Programs

Date: September 28, 2004

ATTENDING:

Alan, Avery, Task Force Chair	Pinelands Commission
Robert Brewer, Planning Director	Cumberland County
Rick Brown, Supervising Environmental Specialist Coastal Resources	Department of Environmental Protection
Paul D. Chrystie, Executive Director	Coalition for Housing and the Environment
Alan Feit, Township Administrator	Medford Township
Doug Griffith, Director, Division of Planning	Camden County
John Dourgarian, Assistant to the Commissioner	Department of Transportation
Peter Miller, Township Administrator	Egg Harbor Township
Carleton Montgomery, Executive Director	Pinelands Preservation Alliance
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
Mark Remsa, Planning Director	Burlington County
Paul Stridick, Deputy Director of the Division of Housing	Department of Community Affairs
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County
Betty Wilson, Task Force Vice Chair	Pinelands Commission

ABSENT

Mike DePalma, Construction Codes Dept	Monroe Township
John Kennedy, Township Administrator	Jackson Township
Ed McGlinchey, Public Works Director	Winslow Township
Jim Smith, Planning Director	Cape May County
Joan Verplanck, President	State Chamber of Commerce

OTHERS:

Courtenay Mercer	Office of Smart Growth
Pamela Weintraub	Cumberland County
John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
Nadine Young	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

Meeting Purpose:

1. Review Inside/Outside Allocation including Villages within Sewer Service Areas
2. Review Inside Pinelands Allocation Methodology

3. Consider constraints and adjustments model
4. Discuss potential topic for subsequent meeting
5. Public Comments

Materials Distributed:

1. 09.10.04 memorandum entitled "Inside Pinelands Population and Housing Apportionment Methodology" (*distributed via e-mail*)
2. 08.19.04 Meeting Summary (*distributed via e-mail*)

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

Preliminary

- General introductions.

Review Inside/Outside Allocation with Villages within sewer service areas

- Overlaid DEP sewer service area maps on Pinelands boundaries to identify those villages within service areas, excluded all others
- Results in reduction of projected demand from 41,290 (included all villages) to 37,530 units within Pinelands consequently increasing outside allocation from 120,000 units to 124,750 units
- Available sewer plant capacity will be consider as a technical factor, may be considered a local development constraint

Review Inside-Pinelands Allocation methodology

- Overlaid DEP sewer service area maps (derived from DEP cross-acceptance data) on Pinelands boundaries to identify those villages within service areas, excluded all others
- Indicated that initial overall inside allocation figure was derived through the inside/outside apportionment – reviewed inside/outside apportionment steps [used DOL population projections to derive future estimated housing demand, used DEP and DVRPC information to estimate the amount of vacant land inside and outside the Pinelands, deleted land within wetlands and wetlands buffers to derive the percentage of developable land inside and outside the Pinelands, multiplied estimated housing demand by the percentage of vacant land inside and outside Pinelands to derive the initial, unconstrained, unadjusted housing demand inside and outside the Pinelands]
- Considered the RGAs, Towns and villages with sewer service areas within the Pinelands to allocate housing demand. Initial unconstrained, unadjusted allocation mirrors process used for the inside/outside allocation according to the following steps:
    - Identify those local constraints that can and cannot be accommodated (typically decrease allocation) and identify adjustments that would be needed to meet CMP or other public goals (typically increase allocation)
    - Reallocate to account for constraints or adjustments
    - Determine how to account for reserve – reallocate as needed
    - Determine credit for already committed development between 2000 and 2003
    - Recalculate remaining vacant land as of 2003
    - Assign densities
- The current methodology deletes vacant, publicly owned land from developable land
- It was noted that there is a likelihood that publicly owned land could be sold for development at discretion of municipality, particularly land that is unsuited to public purposes
- The open space and public lands data is obtained from the DEP Green Acres Program that is derived from municipal recreation and open space inventory (ROSI). A ROSI must be compiled in order to obtain funds through the Green Acres program. Lands within the inventory become encumbered and if a municipality wanted to take lands out of this listing it would have to appeal to the State House

Commission and would need to compensate for this reduction. Therefore, the data layer used for the analysis would only reflect those land that a municipality has determined is suited for public purposes

- The inside Pinelands allocation methodology, however, will rely on block and lot and permit data to determine precise vacant land status as of 12/31/03. The ROSI will be reviewed as a "reality check" to ensure that only those lands designated by municipalities for public purposes are deleted from the vacant developable land calculation
- If a Village is within a sewer service area it is assumed that the entire village is within the service area. The area of all villages within the Pinelands, that are within sewer service areas are entirely within the service area. These villages may not have sewer lines that extend to all areas, but they are elligible to provide such service.
- It was noted that the price of PDCs is increasing rapidly. What will happen when the available supply of PDCs is exhausted and what is the available supply? How will this affect the allocation methodology?
- In addition to reviewing the housing allocations, the Pinelands Commission has identified a review of the PDC program as a planning priority. The review of the PDC program will begin as soon as the housing demand analysis is completed. Ultimately the Commission will review exactly how many credits still exist, how many opportunities are there for their use and are there other ways PDCs can be used.
- It was noted that the result of the Commission's review of the PDC program will affect the allocation and the Housing Task Force should have the option to make recommendations regarding how PDC should be applied that can be considered by the Commission
- There are roughly 13,000 rights are available for allocation, only a few hundred are currently "on the market". The PDC bank is making a concerted effort to encourage more credits to be made available, consequently, the current limited availability of PDCs may be a short-lived condition which may not affect the long-range allocation
- Approximately 4,000 PDCs have been sold to date
- It was noted that the method to assign housing demand to regional growth areas in the past was to established an allocation figure and then add 50% more for PDC use. So the net result was that each RGA had an obligation that was 2/3 units without PDCs and 1/3 with PDC. So the question that needs to be considered is whether the initial, unconstrained demand figure represents an allocation without PDCs or should it represent a figure including PDCs, or is there another approach that should be considered.
- COAH's recently released rule response document established that 23% of all new housing in New Jersey will be affordable. HTF needs to consider whether the COAH obligation needs to be added to the allocation or be included within it.
- Questioned whether the 200 foot wetlands buffer used in the vacant land calculation inside the Pinelands is appropriate. It was noted that the Pinelands requirement is for a 300-foot buffer. Suggestion, use 50 foot buffer where no T&E habitat has been identified, use 300 foot where habitat has been documented. Same approach should be used outside.
- It was noted that the inside/outside methodology used an ***average*** buffer area. However, when the inside-Pinelands analysis is conducted, the buffers will be examined on a parcel-by-parcel basis, a more precise approach.
- Need to evaluate specific adjustments on a local level

Consider Constraints and Adjustments Model

- Reviewed constraints model
  - First step, use the raw land figure
  - Deduct previously committed units (built or with approvals)

- Identify constraints, if constraints – deduct and reallocate (units deducted in one location within a County must be reassigned to another location within that County – an iterative process)
- Reviewed likely constraints list, question that must be answered is, can a given constraint be accommodated perhaps by changing design or density or, if a cost issue, how big a cost? If it can't be accommodated (i.e. if there are so many endangered species that are unique and not otherwise protected in the Preservation Area or if wetlands cover is so extensive that development simply is not feasible) then an adjustment is needed. These are carrying capacity questions, can the land absorb the development it is calculated to receive.
- Constraints would include:
  - Wetlands/Wetlands Buffers
  - Threatened/Endangered Species
  - Water/Inter-Basin
  - TMDL (Total Maximum Daily Load)
  - Sewer Availability
  - Schools
  - Roads
  - Community Character
    - Land Suitability for Residential
    - Need Land for Open Space, Business Development, Schools
    - Existing Development Pattern
  - Other Vacant Land Capacity in Town (or nearby)
- Adjustments would include:
  - Pinelands Development Credits
  - Reserve Capacity
  - Development Trends
  - Efficiency
  - Credit for Units Approved or Constructed
  - COAH Obligations

- Need to consider cost of infrastructure as a constraint – when does the cost rise so high that it cannot be accommodated
- May need to do an infrastructure needs analysis. Commission conducted a sewer needs assessment a few years ago, concluded that it would cost $180 million to build out sewers in the Regional Growth Areas. A full needs analysis will be conducted in conjunction with this housing demand analysis
- Should consider the need to construct an electric generation plant – this may not be a specific need for a particular town, it may be a south-Jersey wide issue, which would not typically be considered a development constraint in the housing assessment
- The objective of the meeting is to develop a list of all items that we should consider, not necessarily whether we have the capacity to evaluate each variable – it will be necessary to determine if there is a simple, reliable method to factor each of the variables into the housing demand equation.
- Need to determine whether there are factors that would suggest that a given municipality's allocation be increased?
- How will storm water be recharged, need regional stormwater management options. Typically, these are costly and the costs cannot be passed onto the developer. In addition, the State reimbursement for school construction, at 49% places a significant burden on growing municipalities requiring escalating local taxes. These factors need to be considered in the allocation methodology
- Attempting to identify those conditions which are unique to a given community, issues that are experienced by all communities do not fit the definition of a development constraint

- If a needs assessment is not conducted it must be clear in the analysis that growth projections are based upon the expectation that investment in infrastructure that has occurred to date needs to be factored into decisions to support future development
- Community Character – is the area suitable for residential development – this may be a moving target, what may be considered unsuitable today may not be tomorrow. Should also consider the role a given community plays in regional development patterns as a factor of community character
- May need to set land aside for other uses – open space, commercial development, etc.
- Existing development patterns – if the municipality has developed according to an established pattern it may not be appropriate to assign an allocation that would require a significant shift in that traditional pattern. However, may want to encourage density increases if perpetuating the current pattern results in sprawl or if diversity is preferred
- Need to consider the value of contiguous forests, for open space needs as well as habitat, that may constrain development
- Ultimately municipalities may be highly resistant to density or development pattern changes regardless of the housing apportionment. The Commission is trying to address these design concerns with programs such as the Pinelands Excellence program, which responds to how density can be made palatable.
- Task Force needs to recognize that the Commission, as well as the municipalities, will need to support the recommendations that evolve through this housing allocation project
- In evaluating constraints it will be necessary to distinguish between what presents a challenge and what presents an insurmountable obstacle, this is the job of the Task Force
- There is a possibility that the allocation model may be unable to allocate the entire calculated demand due to constraints, which would require that more units be shifted outside the Pinelands. The probability of this result is remote
- Need to consider allocating units to those areas where jobs are being created (economic drivers), this should be a factor in addition to vacant developable land. The State's transferable development model may be suited to this type of shift in demand.
- Reallocations due to constraints may result in the shifting of demand to the point where a receiving town is unable to accommodate that level of development – if this point is reached it will be necessary to reexamine the inside/outside allocation. The probability of reaching this point is remote.
- Adjustments:
  - Are PDC's going to be included in the allocation or added to it
  - How much reserve beyond 2020, where should it be, will redevelopment accommodate reserve
  - Development trends – land may be used at a different (lower) density than is assigned, where will the extra units go
  - Efficiency – can the allocation actually be achieved
  - Adjustment for committed units
  - Unmet COAH obligation – COAH will indicate what the unmet need is. Some municipalities have zoning in place but units have not been built
- It was noted that the State will be generating new population projections in conjunction with the new State Plan which may necessitate a recalculation of all the allocation figures developed through the housing demand project
- Need to consider availability of public transit (argument for increasing allocation), relationship of employment centers, access to transportation corridors
- It was noted that New Jersey Transit has ranked areas throughout the state as transit oriented communities, this should be a factor of consideration
- Should encourage redevelopment rather than developing greenfields

- Need to consider control of pace and rate of development and the ability to provide the necessary supporting infrastructure as a factor of the allocation – Commission is considering timed growth controls, need to keep HTF advised of progress on this issue. Commission is also considering clustering (conservation planning) provisions as an issue of design. This material will also be distributed
- Consider efforts to amend property tax provisions and consider Meadow Lands provisions for tax sharing. Are these means to make growth possible?
- Consider impact fees to offset infrastructure costs
- It was noted that the original CMP projections overstated growth. Is there a way to apply that past factor of error to current projections? A comparison to state projections revealed that the estimates did not substantially deviate from actual. The original CMP was merely intended as an outside check, if growth conditions were as optimistic as possible (i.e. huge casino employment growth by 1990 that has not occurred yet) what would that impact be on areas slated for preservation.
- If New Jersey is the most densely populated state will it be necessary to continue to provide for additional development, has the State reached a saturation point where it is not possible to accommodate additional growth? People who can no longer afford certain communities are moving to find more affordable housing, we're redistributing population. Should that burden be spread in a more equitable manner? It will be necessary to plan for some growth until the State concludes that it will no longer invest in development.

Next Topic

- Define the rules to calculate the adjustment

Other

- Need to ensure that information for the next meeting needs to be distributed well in advance of the meeting
- October 21st meeting cancelled, ***next meeting will be November 19th***
- It was noted that COAH should be contacted to provide their projections as soon as possible
- Should distribute current zoning capacities under the current plan

Public Comment

- Courtenay Mercer of the Office of Smart Growth introduced herself and indicated that she will be attending upcoming Task Force meetings.

I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if there are any omissions or inaccuracies. I can be reached by email at david.kutner@njpines.state.nj.us*, or by phone at 609-894-7300 x 111.*

PLEASE NOTE: The next meeting of the HTF is scheduled for
Friday, November 19, 2004 at 10:00 a.m.
at the Woodland Township Building
PO Box 388, Main St., Chatsworth, NJ 08019

Running Issues List

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9. Does zoning in non-sewered areas appropriately reflect development potential
10. May need to enhance growth potential, through zoning and other techniques, in areas where growth should occur
11. Determine the major economic drivers and transfer development rights to those areas, perhaps shift development outside the Pinelands
12. Jobs/housing ratio needs to inform local allocations

Issues from September 19th Meeting

13. In assessment of Region Growth Areas, need to ensure that an opportunity for PDC use is provided.
14. Stormwater management as a possible constraint (are there soil or hydrologic conditions in a given municipality that make recharge impossible)
15. Infrastructure costs as a possible constraint (is there something unique to a given municipality about such costs that affect developability)
16. Should obtain the 6-year capital programs from all municipalities
17. Consider vehicle miles traveled as a function of the allocation formula

MEETING SUMMARY

To: ***Pinelands Housing Task Force***

Subject: November 19, 2004 Meeting

Compiled By: David M. Kutner,
Director of Special Programs

Date: December 8, 2004

ATTENDING:

Alan, Avery, Task Force Chair	Pinelands Commission
Rick Brown, Supervising Environmental Specialist Coastal Resources	Department of Environmental Protection
Paul D. Chrystie, Executive Director	Coalition for Housing and the Environment
Peter Miller, Township Administrator	Egg Harbor Township
Carleton Montgomery, Executive Director	Pinelands Preservation Alliance
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
Mark Remsa, Planning Director	Burlington County
Paul Stridick, Director, Division of Community Resources	Department of Community Affairs
Joan Verplanck, President	State Chamber of Commerce
Betty Wilson, Task Force Vice Chair	Pinelands Commission

OTHERS PRESENT:

Courtenay Mercer	Office of Smart Growth
John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
Tony O'Donnell	Pinelands Commission
Nadine Young	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

ABSENT

Robert Brewer, Planning Director	Cumberland County
Mike DePalma, Construction Codes Dept	Monroe Township
John Dourgarian, Assistant to the Commissioner	Department of Transportation
Alan Feit, Township Administrator	Medford Township
Doug Griffith, Director, Division of Planning	Camden County
John Kennedy, Township Administrator	Jackson Township
Ed McGlinchey, Public Works Director	Winslow Township
Jim Smith, Planning Director	Cape May County
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County

Meeting Purpose:

1. Review a Constraints Analysis model
2. Review the assessment of Constraints and Adjustments
3. Discuss Next Steps
4. Public Comments

Materials Distributed:

- 11.15.04 memorandum entitled "Assignment Adjustments Assessment" (*distributed via e-mail*)
- 09.16.04 Meeting Summary (*distributed via e-mail*)

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

Consider Assignments Adjustments

- Reviewed model to evaluate constraints introduced in September meeting
- *C1 Wetlands and Wetlands Buffers*: vacant land estimates were adjusted for wetlands buffers in the initial assignment (150 feet inside and 50 feet outside the Pinelands boundaries).
- It was noted that for the local level analysis, buffers around T&E should reflect the 300 foot requirement stipulated by the CMP. However it was suggested that several constraints may exist at the local level, the question is whether these constraints can be overcome through such techniques as density adjustments, etc.
- It was noted that the buffer requirement may be sufficiently significant in certain towns as to require a reduction in the estimate of vacant developable land. In addition, outside the Pinelands the Freshwater Wetlands act would require a wetlands buffer of 150 feet and in the CAFRA area a 300 foot buffer is required. Consequently, consideration should be given based on the individual Towns. This factor should not result in a reassessment of the inside/outside allocation. It was noted that in the final analysis, accounting for these requirements is not likely to result in a significant adjustment in the overall allocation figures.
- Staff will evaluate Commission records for applications in larger wetlands systems to determine the average buffer requirements typically imposed for development applications. Rick Brown offered to ask the appropriate DEP staff to provide records of documented T&E sightings data. It was stressed that this factor may not result in a significant assignment adjustment and that density adjustments could adequately respond to this issue. It was noted that staff did conduct a detailed analysis for Winslow Township and concluded that the average buffer was 185 feet. It was stressed that this more detailed evaluation may result in an inside-Pinelands adjustments but will not result in a re-calculation of the overall inside/outside allocation.
- *C2 Threatened and Endangered:* see above – should consider whether "hot spots" in certain municipalities may require an adjustment.
- It was noted that the recommendations regarding the adjustments need to be evaluated on a town-by-town basis and each municipality should have the opportunity to evaluate the factors on a local level before a decision regarding applicability is reached.
- It was stressed that the objective is to develop assignment rules which will be applied on the local level to determine how the assignment is zoned within each municipality but these rules will not change the local assignment.
- It was suggested that local constraints, in general, should not change the allocation but it should be used for zoning/density determinations. Alternatively, it was suggested that it will be necessary to assure that constraints are not significant as to result in a reduction in the calculation of developable land which in turn would result in a reduction in the assignment.
- It was stressed that any municipal adjustment will result in an intra-county reallocation, not a Pinelands-wide adjustment.
- *C3 Water/Interbasin Transfer*: Noted that the CMP indicates that growth numbers are needed, therefore if growth is to occur, impacts will be experienced. Noted that the assignment project is not a "carrying capacity analysis". Constraints have to be unique to the town, if constraint is experienced region-wide everyone has to determine how to manage it but it should not be considered an issue that will result in a local assignment adjustment. Even it there is a local issue, there may be techniques to manage it without adjusting assignments. Water is a regional constraint but it will be necessary to

determine how this constraint will be handled by all the municipalities within the Pinelands while allowing for growth. Overall, water capacity is likely to be sufficient, the question is, how it can be distributed to assure that local needs are met.

- It was suggested that the technical solution to this issue may not be available regardless of whether capacity is adequate.
- Should the failure of governments to provide the services that are needed result in a limitation of growth? It was suggested that the outcome of the Task Force's work should include a recommendation that it will be necessary to plan for and address the future populations' housing needs, which means that a capital improvement program will be required that provides the technical solutions to respond to these needs.
- It was noted that the Pinelands Commission has no control over local capital investment strategies and cannot assume that technical solutions will be put in place to address the housing needs of future populations. Commission assumptions have to be based on whether these solutions are in place now and until they are, the assignment process should not risk sacrificing environmental values the CMP requires be protected.
- It was suggested that the permitting process could control the response to this dilemma. The permit process should be revised to require that water permits precede consideration or approval of applications for development permits
- It was noted that the Task Force should recommend this procedural change as part of its final recommendations
- It was suggested that if a municipality has no realistic capacity to access an adequate water supply, this would constitute a constraint, staff should determine whether any towns fall into this category it would then be necessary to develop a rule to address this constraint.
- Rick Brown offered to ask appropriate DEP staff to determine whether and where there may be severe water allocation issues
- It was suggested that Pinelands approvals should follow a determination that sufficient water capacity is available to serve a given development to avoid permitting agencies being played off against one another
- The regulations and process that governs DEPs water allocation system needs to be corrected to assure that water capacity is sufficient before other development permits can be requested. A CMP rule change may be required
- It was noted that there is a possibility to adjust the overall allocation figures at the end of the analysis if it is ultimately determined that constraints absolutely preclude development of the projected number of housing units. Such an event is unlikely, however, given the relatively small number of projected future need and the extent of the estimated developable area
- DEP currently requires that an evaluation be provided to assure adequate capacity before Water Quality Management Plans will be approved. An illustration of the problem would be Cape May's plan which allocates more waste water flow than its water capacity. DEP would not approve this plan under its current guidelines.
- If the point is reached where identified constraints indicate that it will not be possible to provide sufficient housing to address projected needs, it would be necessary to reduce non-residential development potential. Should not provide the opportunity to develop commercial uses that drive housing demand without assuring that the need can be met, need to strike a balance. (Cap Atlantic City's development??)
- *C4 Waste Water*: Waste water is not the only source of development-related pollution, should non-point pollution generation be considered. Data suggests that when the amount of development within a pinelands-characteristic watershed exceeds 30%(±) disturbance it will no longer be a "Pinelands stream". It will not necessarily be polluted; it just will not exhibit Pinelands characteristics, low nutrients and high acidity, resulting in a change to the flora and fauna. It was noted, however, that, as

a generalization, designated growth areas were not located proximate to Pinelands streams. It was also noted, however, that down-stream impacts need to be considered.

- It was noted that an ambient water quality study is being conducted and if the result of that study suggests that a determination of a growth area is wrong, it should be re-zoned.
- It was noted that certain areas are already impacted and the introduction of new stormwater management guidelines will not address these areas, it will be necessary to introduce a combination of approaches to address these needs. But there will be an improvement of runoff quality of existing developments because to the management techniques required through the new guidelines
- It was noted that the 30% tipping point relates to the amount of developed area, there is no present measure to account for density of development and its related affect on the level of disturbance in a watershed
- Should be cognizant of the secondary affects of what happens in development areas and development areas slated for conservation but presently there is no definitive evaluation of these affects. The Commission is currently evaluating the affects of the geographic extent of development and the imposition of better management techniques may be more effective methods to address this issue, as it relates to the housing allocation project
- *C5 Sewer Availability*: a variety of alternatives are available to address this issue that would not result in an allocation adjustment. May need to revise the wording of this section to recognize that if a community is within a sewer service area it may be necessary to prepare an associated infrastructure improvement plan to allow for the projected growth. Need to recognize that there may be a challenge in some areas more than others to construct sewers or other infrastructure responses where such facilities do not currently exist. Permitting process should encourage alternative responses that are more protective of the environment, for example alternative septic systems that result in water recharge, rather than hinder such proposals.
- *C6 Schools*: would not ordinarily result in a development constraint. If growth is too rapid it may be difficult for communities to meet the demand for new schools quickly enough. Need timed-growth techniques to control the rate of new housing unit development. [Provide Timed-Growth white paper to members of the Task Force]. Task Force should recommend that planning (infrastructure, schools, etc.) must be undertaken to accommodate assignments
- *C7 Roads*: does not appear to represent a development constraint
- Should revise recommendation that these factors are not constraints to a 20-year projection of future development
- *C8 Electricity:* does not appear to warrant an adjustment of the municipal assignment when considered on a local level. Memo should be carefully re-worded to reflect this. Need to consider buffers around generating facilities and whether such buffers would result in an adjustment.
- *C9 Stormwater:* In theory it would appear that significant siting limitation exist due to recharge incapacity that would warrant an adjustment. Staff will conduct an initial analysis, examining depth to watertable, to determine if this is likely to be a factor. Control of quantity of stormwater is less important than quality and the new DEP regulations, relative to this issue, should significantly improve the runoff quality
- It was suggested that the Task Force members review each of the factors and provide comments to staff on those items that the meeting did not allow time for
- *C11 land for buffers*: Military bases: should consider buffers around bases as a possible adjustment
- *C12 Land for open space, commercial development, schools, etc*: Use data from DCA, Assessment Class Proportions, as a surrogate for land use mix, compare it to state average and adjust where significant variation is identified. Does the Task Force believe that this is a valid basis for adjustment? Not a constraint but a goal to achieve a more balanced community. Green acres typical open space proportion of 3% is not relevant to the Pinelands. Staff was asked to conduct a preliminary assessment to determine if any communities are significantly at variance.

- How will COAH obligations be considered? If all other adjustments are considered first and then COAH obligations are considered it would result in a projection considerably higher than the current assignments. DEP believes that COAH obligations should not be considered in addition to the local assignments.
- It was suggested that prior unmet obligations should be added to the future assignments. Task Force asked that these numbers be provided for consideration
- *C13 Existing Development Patterns*: Assignments will be adjusted to reflect prior subdivision approvals. Not likely to result in a significant assignment adjustment
- *C-14 Size of Open Space*: Design issue not likely to warrant an assignment adjustment
- *C15 Other Vacant Land*: Does not relieve assignment obligation.

Task Force members were urged to provide comments via e-mail to staff who, in turn, will distribute the comments to the members for consideration

Paul Chrystie and Rick Brown, working with Courtenay Mercer, offered to attempt to obtain and distribute the COAH figures for the members' consideration. Among other things, the Task Force needs to determine if prior, unmet obligations need to be added to the future assignment

Staff was asked to distribute the initial assignments for consideration at the next meeting

It was noted that comments on the assignment adjustments analysis should be submitted to staff no later than December 10, 2004

I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if there are any omissions or inaccuracies. I can be reached by email at david.kutner@njpines.state.nj.us*, or by phone at 609-894-7300 x 111.*

PLEASE NOTE: The next meeting of the HTF is scheduled for
Friday, February 17, 2004 at 10:00 a.m.
at the Woodland Township Building
PO Box 388, Main St., Chatsworth, NJ 08019

MEETING SUMMARY

To: ***Pinelands Housing Task Force***

Subject: 02.17.05 Meeting Summary

Compiled By: David M. Kutner, Director of Special Programs

Date: April 29, 2005

ATTENDING:

Alan, Avery, Task Force Chair	Pinelands Commission
Mike DePalma, Construction Codes Dept	Monroe Township
Rick Brown, Supervising Environmental	Specialist Coastal Resources Department of Environmental Protection
Paul D. Chrystie, Executive Director	Coalition for Housing and the Environment
Carleton Montgomery, Executive Director	Pinelands Preservation Alliance
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
Paul Stridick, Director,	Division of Community Resources, Department of Community Affairs
Mark Remsa, Planning Director	Burlington County
Alan Feit, Township Administrator	Medford Township
Betty Wilson, Task Force Vice Chair	Pinelands Commission

OTHERS PRESENT:

Jung Kim	Office of Smart Growth
John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
Tony O'Donnell, Economic Planner	Pinelands Commission
Nadine Young	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

ABSENT

John Dourgarian, Assistant to the Commissioner	Department of Transportation
Ed McGlinchey, Public Works Director	Winslow Township
Peter Miller, Township Administrator	Egg Harbor Township
Joan Verplanck, President	State Chamber of Commerce
Robert Brewer, Planning Director	Cumberland County
Doug Griffith, Director, Division of Planning	Camden County
Andrew Salerno, Township Administrator	Jackson Township
Jim Smith, Planning Director	Cape May County
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County

Meeting Purpose:

1. Review Assignment Adjustments Model
2. Review the Assignment Adjustments Methodology
3. Next Steps (Topics for Subsequent Meetings)
4. Public Comment

Materials Distributed:

- 02.14.05 memorandum entitled "Assignment Adjustments Methodology" (*distributed via e-mail*)
- 12.22.04 memorandum entitled Assignment Adjustments Assessment - Final Listing (*distributed via e-mail*)
- 11.19.04 Meeting Summary (*distributed via e-mail*)

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

- Noted that the review of factors to adjust local assignments is an important step for the Task Force as it completes its planning process
- Staff reviewed the assignment adjustments model that the Task Force had accepted previously. It was noted that if constraints are identify they would be accounted for and the units deducted from that municipality would be re-distributed to all the other communities within that County to maintain the initial inside/outside County-level unit distribution
- Reviewed the list of adjustment factors the Task Force had agreed should be examined including:

  Wetlands/Wetlands Buffers
  Threatened/Endangered Species
  Water Quality Relating to Waste-Water Generation
  Stormwater
  Land Suitability for Residential Use
  Land for Business Development
  Access to transit
  Existing Development Pattern
  Credit for Units Approved or Constructed as of 12/31/04
  Proximity to Employment Centers
  PDC
  Reserve Capacity (to include redevelopment capacity)
- Staff reviewed the recommended methodologies for calculating the value of each of the factors, described in detail in the 02.14.05 memorandum entitled "Assignment Adjustments Methodology"
- Methodology to evaluate **wetlands/wetlands buffers** applied to determine whether a variation of the 200 ft inside/50 foot outside buffer limits used in the initial methodology was warranted
- The number of waiver applications typically did not exceed 15 per year
- Many of the adjustments are likely to have only minimal affect but the Task Force agreed that these adjustments should be considered therefore staff would develop a methodology for analysis
- It was suggested that an allocation methodology that is based on a wetlands buffer standard that is less than the literal requirements would not be adequately protective of water quality. In response it was noted that the assignment process is general, the implications of actual development capabilities in specific growth areas would need to be considered as individual municipalities apply the generalized assignment. Further, it was noted that there are no reference quality streams within growth areas, that these areas were most suited to growth that does occur
- The Task Force initially asked whether significant information is available that warrants the use of a buffer that is different from the 200 ft buffer used in the initial analysis
- The members of the Task Force agreed to use the wetlands/wetlands buffer adjustment methodology proposed by staff
- **Threatened and endangered species** considered whether growth areas include large forested landscapes that should not be disturbed by development, triggering an adjustment in its area. Used 100 acres as minimum area to be protected and connected, by a minimum 300' wide corridor to other contiguous areas that should be protected

- Noted that lands eliminated due to the formula would not be deleted from the area the Town could zone, also noted that the Commission will be undertaking a more detailed evaluation of T&E habitat throughout the Pinelands. This study could be used to adjust management area boundaries. The Task Force could decide to forego evaluation of this factor until the Commission's study is completed.
- DEP should be asked to help refine data in specific targeted areas identified through application of the methodology to determine if sufficient data is available to make an adjustment
- The methodology addresses where boundaries should be rather than how the amount of development should be adjusted
- The methodology is an adjustment of the DEP methodology to identify suitable habitat. Described the reduction in development potential in the case of the Ocean Acres subdivision in Ocean County proposal, which had originally proposed approximately 2,200 units that decreased by approximately 700 units as a consequence of the presence of critical habitat. Noted that DEP Landscape maps identify "suitable" habitat areas not actual habitat.
- Suggested that the methodology not be limited to forest area but also consider adjacent agricultural areas which may also have forested areas
- Noted that the methodology may result in false negatives due to the absence of accurate data
- The members of the Task Force agreed that the methodology be applied as staff proposed it and the results calculated and the Task Force would then determine whether the T&E factor should be considered
- **Water supply/interbasin transfer** – intended to examine those communities that had development constraints due to inadequate supply. No community appears to experience this constraint therefore this factor seems inapplicable
- It was suggested that the justification to eliminate this factor from consideration needs to be re-worded, the point is that no individual community faces a water supply limitation that all the other communities are not similarly experiencing, there are no unique constraints. Noted that DEP was asked for accurate water supply information, noted that in many cases, public supply may be inadequate but private purveyors fill the gap, therefore, it was suggested that after the assignment adjustments are calculated the Task Force could re-consider this issue to see if a constraint due to water supply should be considered
- **Water quality relating to waste water** – issue evolved to include evaluation of water quality relating to sub-basin disturbance. Methodology will evaluate sub-basins throughout the Pinelands to determine where pinelands characteristic waters are found and limit development in these areas as applicable
- Noted that three factors will be considered, sub-basin disturbance levels; Commission water quality monitoring data; DEP attainment level data
- Noted that new development should perform better, as it relates to storm water runoff therefore it would not be a constraint to growth. But water quality in areas with development that occurred prior to enacting improved storm water runoff standards is not likely to meet this standard and therefore would be unreasonably growth-constrained.
- It was stressed that these adjustment factors are not being advocated by staff, they have been selected by the Task Force. Staff is merely attempting to develop methodology to calculate their affect. The Task Force can decide not to include any of the factors. It was noted it did not appear that areas with reference water quality should have development limitations. It was noted that impacts from development (residential, commercial, upland agriculture) have been clearly correlated to water quality characteristics
- Noted that HUC 14 would be used as the determination of the sub-basin boundaries
- It was agreed that staff should conduct the sub-basin water quality analysis and the Task Force would evaluate whether this factor constitutes a constraint after the results of the calculations can be considered

- It was suggested that unless any member had any objections to any of the proposed methodologies, staff should be authorized to perform the calculations for all and submit the results for consideration by the Task Force, at which point the members could decide whether to accept or reject any of them.
- It was suggested that the Task Force was being asked to (1) determine if any of the proposed constraints should be eliminated from consideration and (2) whether the proposed methodology is including the correct factors for evaluation
- It was noted that the next step is to determine how each of the evaluated factors will be fit into the basic allocation model – it may not be possible to blend all of the factors into one over-arching model – the expectation is to arrive at a gross density for the growth areas. At that point, the municipalities will need to determine how zoning plans need to be adjusted to reflect the gross assignments
- The members were asked to identify any particular questions about the proposed methodology for any of the remaining constraints/adjustments
- **COAH** – noted that the prior unmet COAH obligation would be added to the base assignment. It is assumed that the third round COAH allocation would be included into the base assignment but that the prior un-built units should be added to that base. Environmental constraints would eliminate developable acres requiring that the density would increase on the remaining developable area.
- The capacity to accommodate growth could be significantly greater than the assignment.
- It was suggested that COAH units should be an element of the base allocation, not added to it
- Noted that the proportionate share of the prior unmet COAH obligation assigned to the growth area was based on the growth area proportion within and outside the Pinelands Area
- It was noted that the Commission is precluded, by the Legislature based on an early 1980s amendment to the Pinelands Protection Act that indicated that the Commission cannot take affordable housing into its decision making
- Noted that the assignments are based on a 20-year horizon but that the CMP is an end plan not a growth management plan so, eventually the Task Force will need to consider what measures will be needed to taken for growth that will occur after the planning time frame
- The Task Force agreed to consider COAH allocations in conjunction with PDCs and Reserve Capacity, following the calculations of the base assignment
- Noted that it will be necessary to consider the jobs-to-housing ratio together with the base assignments to assure that the assignments actually respond to projected need
- It was suggested that **depth-to-ground water** not be used as a basis for unit adjustment, it would eliminate lands that might otherwise be available for development
- The Task Force agreed to eliminate this factor from further consideration
- **Proximity to employment**: suggested that it would be necessary to evaluate the results of the application of the methodology for distance from employment areas before deciding whether or not to include this factor. It was noted that this factor attempts to recognize that people are more likely to reside closer to where they will be employed.
- Noted that (1) massive settlements, such as the Heritage settlement in Mansfield township, may warrant assignment shifts and (2) the Cross Acceptance process may result in changes in assumptions for areas outside the Pinelands area that may also warrant assignment shifts

I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if there are any omissions or inaccuracies. I can be reached by email at david.kutner@njpines.state.nj.us*, or by phone at 609-894-7300 x 111.*

MEETING SUMMARY

To: ***Pinelands Housing Task Force***

Subject: April 28, 2005 Meeting

Compiled By: David M. Kutner,
Director of Special Programs

Date: April 29, 2005

ATTENDING:

Alan, Avery, Task Force Chair	Pinelands Commission
Ed McGlinchey, Public Works Director	Winslow Township
Mike DePalma, Construction Codes Dept	Monroe Township
Rick Brown, Supervising Environmental Specialist Coastal Resources	Department of Environmental Protection
Paul D. Chrystie, Executive Director	Coalition for Housing and the Environment
Peter Miller, Township Administrator	Egg Harbor Township
Carleton Montgomery, Executive Director	Pinelands Preservation Alliance
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
John Dourgarian, Assistant to the Commissioner	Department of Transportation
Keith Henderson	Coalition for Affordable Housing
Joan Verplanck, President	State Chamber of Commerce
Betty Wilson, Task Force Vice Chair	Pinelands Commission

OTHERS PRESENT:

Candy Ashmun	Pinelands Commission
Pamela Weintraub	Coalition for Affordable Housing
Jung Kim	Office of Smart Growth
John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
Tony O'Donnell	Pinelands Commission
Nadine Young	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

ABSENT

Robert Brewer, Planning Director	Cumberland County
Mark Remsa, Planning Director	Burlington County
Alan Feit, Township Administrator	Medford Township
Doug Griffith, Director, Division of Planning	Camden County
Andrew Salerno, Township Administrator	Jackson Township
Jim Smith, Planning Director	Cape May County
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County

Meeting Purpose:

1. Review a Assignment Adjustments model
2. Review Assignment Adjustments alternatives

3. Discuss Next Steps
4. Public Comments

Materials Distributed:

- 3.10.05 memorandum entitled "Assignment Adjustments Calculations" (*distributed via e-mail*)
- Summary package of tables [Base Map, Unadjusted/Adjusted Comparison, Adjustments Comparison, Comparison Landscape Acres In/Out, Comparison Landscape Acres In/Out – Composite Adjustment, Comparison PDC/Reserve Analysis] (*distributed at meeting*)

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

- Staff reviewed the assignments adjustments model (power point presentation)
- All adjustments are made within each county, adjustments must balance out to zero (units shifted among municipalities within each county), so that the overall, county-level assignments remain constant and consistent with the county-level population projections developed by the NJDOL and US Bureau of Census.
- Reviewed list of RGAs (24), towns (9) and villages (9).
- Reviewed list of 9 adjustment factors the HTF agreed to evaluate
  1. Wetlands/Wetlands Buffers
  2. Threatened/Endangered Species
  3. Land Suitability for Residential Use
  4. Land for Business Development
  5. Access to transit
  6. Proximity to Employment Centers
  7. Existing Development Pattern
  8. Water Quality Relating to Waste-Water Generation
  9. Credit for Units Approved or Constructed as of 12/31/04
- Adjustments 1 through 3 were calculated using GIS mapping, adjustments 4 through 6 were generated through economic analyses, adjustments 7 and 9 were based upon the Commission's permit records, and adjustment 8 was based upon water quality testing data from the Pinelands Science Department.
- Until the Kirkwood-Cohansey study is completed the Task Force is unable to determine whether water supply constitutes a development constraint. If the conclusions from the Kirkwood-Cohansey study do indicate that supply constrains development capacity, an allocation adjustment may be required.
- It was suggested that the allocation figures be circulated for review by NJDEP
- An adjustment in the assignments may be needed when the Office of Smart Growth releases its state-wide population projections
- It was noted that the study projects assignments to 2020 and that the outside/inside allocation was based on the amount of land available for development within growth areas inside the Pinelands (RGAs, towns and villages within sewer service areas) and comparable areas outside the Pinelands (State Planning Areas 1 and 2 and designated centers)
- Reviewed the "Projected Housing Units With Wetlands Buffer" table that detailed unit projections by County as the starting point for all local assignments
- It was suggested that the "persons-per-household" figures may be too low and therefore might skew the assignments
- It was stressed that the assignments are based on the adjustments and the methodology that the Task Force had endorsed

- Questions were raised regarding the adjustments for transit. It was noted that the Transit Scores were provided by New Jersey Transit. It was noted that virtually every community within Pinelands Counties had relatively low scores which resulted in no or only minimal adjustment for this variable[1]
- It was suggested that the transit variable should be eliminated from consideration. Perhaps the methodology should have given greater weight to those areas with existing transportation facilities or those areas that should provide such facilities to affect an assignment shift toward areas that have greater transit access potential (e.g. Egg Harbor City)
- It was suggested that the calculations discard transit as an adjustment factor, however it was stressed that the calculations followed the specific methodology endorsed by the Task Force
- Reviewed the "Unadjusted/Adjusted Comparison" table - compares assignments, based on the calculation of vacant developable land without any adjustments to the assignment with all adjustments. It was noted that this comparison resulted in identifying data anomalies leading to an examination of the affects of the application of each of the GIS adjustments
- Reviewed "Adjustments Comparison" table (comparing the percentage of land deducted for each variable). Noted that the wetlands/wetlands buffers adjustment seemed to yield reasonable results and that the adjustment for previously discounted lands was based on agreements with those affected communities when their ordinances were originally certified. However it was suggested that the landscape adjustments resulted in significant deductions for a substantial number of growth areas due in large part to the broad definition of habitat suitability used to determine the boundaries of the landscape maps. As a result, it was suggested that it may be more appropriate not to consider this adjustment at the current time.
- It was stressed that the role of the Task Force is to estimate housing need to 2020 and equitably distribute that need among the Pinelands RGAs, towns and villages. Based upon that, the landscape factor seems to be more related to how large and where development areas should be located.
- It was suggested that if the role of the Task Force is to recommend zoning then transit should be a factor of consideration.
- The landscape adjustment was proposed as a factor to eliminate land from consideration for development because changes will occur over time.
- It was noted that the Commission has started a project to evaluate landscape-level natural resource indicators, water quality and habitat for protected plants and animals as a basis to refine its Management Area boundaries. It was suggested that this would be the best method to determine where natural resource and development conflicts arise and to adjust boundaries based on the evaluation of the whole range of environmental factors the Commission will consider in this study. It was suggested that based upon this upcoming study, the landscape adjustment should not be considered at this time.
- Reviewed table entitled "Comparison Landscape Acres In/Out" which details the affect of including the landscape adjustment factor in the assignments and the affect on the assignments without this factor (*this table does not include the credit for units approved between 2000 and 2004*).
- It was suggested that application of the landscape adjustment, in a variety of communities, results in a substantial deduction of vacant developable land that may not be warranted
- It was stressed that the Commission is examining key natural resource values, not merely habitat but a whole range of factors. Whether the Commission's detailed analysis results in confirming or revising

[1] According to "The 2020 Transit Report – Possibilities for the Future" prepared by New Jersey Transit, transit scores are based upon the following four variables:
1. Household Density
2. Population Density
3. Employment Density
4. Zero and One-Car Household Density

the landscape maps remains to be seen. However, this assessment is intended to provide greater precision in determining the boundaries of the Management Areas.

- It was suggested that the result of the application of certain variables in some communities results in an unrealistic or arbitrary adjustment.
- Once the adjustment process is completed the Task Force will need to consider reserve capacity, to address development capacity and potential and how land can be efficiently used past 2020
- It was suggested that the assignments were being developed to justify the original housing assignments from 1979 and that adjustments should be made not only within but between the Pinelands counties. It was suggested that the forest area impacts are being double counted, that initially forest areas were zoned for very low densities and now they are being deducted from developable areas, resulting in channeling development to growth areas. It was further suggested that more weight should be given to transit accessibility as an adjustment factor. It was suggested that the proximity to employment factor does not adequately weight communities that are in close proximity to major regional employment centers.
- In response, it was stressed that the fundamental basis of the allocation process, agreed to by all Task Force members at the outset of the project, was to base the assignments on county-specific data and all adjustments would necessarily be made within the growth areas within each county and not distributed among the counties.
- The "Comparison Landscape Acres In/Out – Composite Adjustment" table was reviewed. It was suggested that the adjustment for units approved to 2004 understates the development activity in some communities. It was noted that, prior to starting work with the Task Force, all of the Counties were asked to provide development permit information for this factor but the Counties were unable to generate this information. The County representatives unanimously agreed the Commissions records would be used. It was stressed that all municipalities have the opportunity to submit alternative data but the Task Force will need to agree on a uniform reporting format and determine a uniform method to evaluate the data.
- It was stressed that staff assembled all available information that could possibly be gathered to estimate the number of approved units but that the results of this effort remain subject to verification.
- It was stressed that, at the present time, there is no ability to rely on information from DCA for building permit data primarily because municipalities do not have a uniform method to report building permit data to DCA. In addition, Certificates of Occupancy are not submitted to the Pinelands Commission. Consequently there is no fail-safe system presently in place to confirm the number of permits issued or the number of units actually constructed.
- After the Task Force completes its process the Commission will need to translate the assignments into local-level zoning obligations. Then the municipalities will need to update their own zoning ordinances.
- It was suggested that the issue of "approved units" might be more effectively addressed when each community engages in their zoning ordinance certification process. It was noted that it will be necessary not only to determine how many units have been approved but how much land may have been consumed by those approved units so that the land area can be deducted from the estimates for vacant developable land (a factor that will be evaluated when setting zone densities)
- The zoning certification process will need to await completion of the Commission's examination of the Pinelands Development Credit program.
- It was suggested that as a result of these factors it would be most appropriate to establish a firm number of approved units under the current allocation process and that if the Task Force issued a report that does not address this question (approved units) it will be viewed as inaccurate.
- It was suggested that significant disparities in the count for approved units should be resolved at the current time

- Of the units reported as approved, is there a way to determine how many units are within the landscape area? It was noted that because a large number of the reported units cannot be matched to lot and block information there is no way to relate them geographically.
- The Task Force was asked for a determination as to whether all or some of the adjustments should be applied.
- It was suggested that the Task Force may have exceeded its charge by extending beyond the 24 RGA towns. In response it was noted that the Task Force realistically examined where growth was likely to occur, the villages and towns, and if these areas were not examined it would unrealistically allocate (inflate) units to the RGAs. It was stressed that the population projections, which are based on year 2000 census counts (adjusted by Atlantic County by an independent study), are county-specific and it is fundamental to the analysis that once the initial allocations were made all adjustments necessarily need to occur within each county, adjustments cannot redistribute units among counties.
- The County distribution was based on population estimates developed by outside sources.[2] It would not be practical or feasible to redistribute population data.
- It was suggested that it would be reasonable to exclude the landscape adjustment due to insufficient information at the present time.
- The application of all of the adjustments, with a very limited number of exceptions, results in extremely minor changes to the municipal assignment. Consequently, it would have a very minimal effect if all of them were discarded.
- Rick Brown offered to distribute the assignments tables to NJDEP staff for review and comment with respect to possible water supply constraints – It was suggested that the question that should be considered is - does NJDEP believe that the county level 2020 population projections developed by the state cannot be sustained because of water supply? Is this projected level of growth over the next 20 years unsustainable? Considering the current approach to supplying water, what infrastructure investments will be needed to service the projected increase of population?
- The Task Force members considered how to resolve the difference between the reported number of approved units based on Commission permit data and the permit activity suggested by representatives from Egg Harbor Township.
- The Task Force was asked to reach a conclusion relative to 3 options regarding the assignment adjustments
    1. use the unadjusted numbers
    2. use all of the adjustments
    3. use all the adjustments except for the landscape data
- Following discussion **the consensus of the Task Force was to use the unadjusted assignment figures**
- The report from of Task Force should include a description of the methodology and the various calculations included to develop the adjustments to demonstrate that these factors were considered in depth.
- The Task Force was asked to determine how data discrepancies between Commission records and municipal reports, relative to approved units between 2000 and 2004, should be reconciled. 3 options were considered:
    1. recognize limitations using data compiled from Commission records (included in the 3/10/05 memo)
    2. start over to develop a consistent methodology for data collection and evaluation
    3. recognize that the adjustment is necessary and would be accomplished most affectively when each municipality submits its ordinance for certification

[2] NJDOL, US Bureau of Census, Center for Regional and Business Research (CRBR) study for Atlantic County

- The adjustment for development between 2000 and 2004 will also need to include a precise (lot-by-lot) determination of the land that was consumed as a consequence of this prior development so that this data could compared to the Pinelands Management Area boundaries.
- The Commission initially created the Housing Task Force because it was understood that the current local level assignments were based on 1979 (prior to release of 1980 census counts) that were inaccurate. Consequently, the Commission's objective was to bring the base data up to date to reflect current projections and to examine growth-area capacity and determine whether the targets for growth were the appropriate locations. Given these objectives, the Commission was not necessarily expecting anything other than rough estimates for 2000 to 2020, recognizing that development activity that occurred in the intervening period would eventually be accounted for. Therefore, it would not be inappropriate to present a report that reflected 2000 to 2020 assignment figures with the acknowledgement that the report should be updated to reflect development activity that had occurred since 2000.
- It may, nevertheless, be necessary to report on activity between 2000 and 2004 when the report is presented in order for it to be accepted by the public.
- It was noted that a dilemma arises if a significant portion of the 2020 assignment has already been built in the 2000-2004 period and the Task Force needs to consider the implication of this possibility
- Following discussion **the consensus of the Task Force was to include the 2000 – 2020 assignments in the Task Force report with the explicit acknowledgement that these assignments will be adjusted to account for development activity since 2000 when each municipality submitted its zoning regulations for certification**.
- The final policy-related topics that the Task Force needs to address include:
  - Adjustments for land tenure
  - Determine whether there is adequate land to accommodate reserve capacity (development after 2020)
  - Determine whether PDCs should be counted within or in addition to local-level assignments
  - Determine whether prior unmet COAH obligations should be counted within or in addition to local-level assignments
- Staff will develop options and recommendations regarding these policy items and distribute it in advance of the upcoming meeting that was scheduled for Wednesday, June 8, 2004.
- The Task Force will need to hold one final meeting after the June 8th meeting to review and endorse a final report to be submitted to the Commission for its consideration. The date, time and location of this final meeting will be set at the June 8th meeting.

I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if there are any omissions or inaccuracies. I can be reached by email at david.kutner@njpines.state.nj.us*, or by phone at 609-894-7300 x 111.*

PLEASE NOTE: The next meeting of the HTF is scheduled for
Wednesday, June 8, 2004 at 10:00 a.m.
at the Woodland Township Building
PO Box 388, Main St., Chatsworth, NJ 08019

MEETING SUMMARY

To: ***Pinelands Housing Task Force***

Subject: June 8, 2005 Meeting

Compiled By: David M. Kutner,
Director of Special Programs

Date: July 19, 2005

ATTENDING:

Ed McGlinchey, Public Works Director	Winslow Township
Rick Brown, Supervising Environmental Specialist Coastal Resources	Department of Environmental Protection
Paul D. Chrystie, Executive Director	Coalition for Housing and the Environment
Alan Feit, Township Administrator	Medford Township
Peter Miller, Township Administrator	Egg Harbor Township
Carleton Montgomery, Executive Director	Pinelands Preservation Alliance
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
John Dourgarian, Assistant to the Commissioner	Department of Transportation
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County
Betty Wilson, Task Force Vice Chair	Pinelands Commission

OTHERS PRESENT:

Candy Ashmun	Pinelands Commission
Jung Kim	Office of Smart Growth
John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

ABSENT

Alan, Avery, Task Force Chair	Pinelands Commission
Robert Brewer, Planning Director	Cumberland County
Mike DePalma, Construction Codes Dept	Monroe Township
Mark Remsa, Planning Director	Burlington County
Doug Griffith, Director, Division of Planning	Camden County
Andrew Salerno, Township Administrator	Jackson Township
Jim Smith, Planning Director	Cape May County

Meeting Purpose:

1. Review Outstanding Policy Issues
2. Public Comments

Materials Distributed:

- 06.02.05 memorandum entitled "Policy Review" (*distributed via e-mail*)
- Table: Preliminary 2020 Housing Assignments 200 Foot Buffer (*distributed via e-mail*)

- Table: Housing Assignments/COAH Obligations (*distributed via e-mail*)
- Table: Preliminary population Change 200-2020 – DOL/Preliminary OSG Comparison (*distributed via e-mail*)

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

- The local-level housing assignments have been developed and that the last job for the Task Force was to reach of the conclusions with respect to policy recommendations relating to land tenure, Pinelands Development Credits, Reserve Capacity and COAH requirements.
- Staff was asked to explain why Barnegat and Whiting were singled out for consideration for land tenure. It was noted that each of the growth areas was reviewed to determine if there were any approved, vacant, large subdivisions held in ownership by only one or a handful of owners that might affect that growth area's allocation. These conditions were evident in only two areas, where over 30% of the vacant land was in a previously subdivided pattern that would affect the density assignment (either increasing or decreasing the assignment) and thus the area's ability to absorb its allocation. This issue is solely related to undeveloped land, not land that has been developed between 2000 and the current date. The question that this analysis attempts to answer is whether there is a subdivision pattern that is so significant that the municipality will need to account for it in order to assure that it can achieve its assignment. Only Barnegat and Whiting had a significant amount of land that fit this circumstance.
- For neither Barnegat nor Whiting, this presence of pre-approved large but undeveloped subdivisions will impede the community's ability to reach its assignment. Barnegat's assignment of 3,300 units, with 1,804 committed, left 1,500 to be assigned but an initial review suggested that the Town lacked sufficient remaining land to accommodate the additional assignment, given that there were approximately 1,200 approved but undeveloped lots in Ocean Acres. However, a closer examination revealed that there were also 600 remaining, uncommitted developable acres in the town so the assignment would not exceed the community's capacity.
- In Whiting - Manchester 2,300 units were assigned with only 230 units previously constructed, leaving over 2,000 more units to be developed. It was noted that several elderly housing projects are being developed in the center of Whiting. In Roosevelt City, also in Whiting, of the approximate 1,100 lots that had been created through previous subdivision, only 183 one-acre lots remain vacant. Therefore, development in Whiting will not be constrained. However, it was noted that there appears to be an inconsistency in the mapping analysis, which suggests that there are 1,300 vacant developable acres in Whiting, and the Commission's records which indicate only around 700. This discrepancy has to be resolved.
- The issue before the Task Force is to make a recommendation regarding the path to follow if a pre-existing lot pattern did exist which appeared to be out of sync with any community's assignment. It was noted that the report needs to reflect that this analysis was completed but that it appeared that this is not an issue. It was suggested that if the unavailability of land did become an issue other measures, such as multi-family housing or smaller lot requirements, could be applied to address this.
- The Task Force next considered COAH obligations. Staff presented three possible approaches:
  - Consider the unmet prior obligation as included within the local assignment
  - Add the unmet prior obligation to the local assignment
  - Increase the local assignment if the sum of the unmet obligation and the future need represent an excessive proportion of the housing allocation
- Staff reviewed the components that comprised the third round methodology
  - the rehabilitation share
  - the prior obligations between 1987 and 1999
  - and the growth share generated from state-wide residential and non-residential growth between 1999 and 2014 and delivered between 1/1/04 and 12/31/14

- COAH obligations should ***not*** be considered a factor of the Pinelands housing assignments, that the affected municipalities need to address COAH obligations based on their own local housing strategies. The Pinelands should not address the cost or type of housing but should only consider whether sufficient number of housing opportunities exist to address the probable future demand. It was suggested that a municipality has a variety of ways to meet its COAH obligations, either providing appropriate zoning, or through Regional Contribution Agreements, etc.
- The Commission is not necessarily advocating that COAH be addressed but that it was the Task Force's determination that this be one of the many factors to evaluate. It was also noted that since the Coalition for Affordable Housing is represented on the Task Force that the Commission implied that affordable housing should be a factor of consideration
- If the future COAH obligation, based on the COAH round 3 methodology constitutes a significant portion of the total future housing needs within the Pinelands, it would be inconsistent with sound planning principles to ignore this obligation as a factor for consideration in the local level assignments
- Some communities have met their prior COAH obligations despite the fact that they have not been certified, therefore the COAH numbers may not reflect the real proportion of affordable housing at the local-level that presently exists
- It was emphasized that the Pinelands Commission will not obligate any municipality to provide any type of housing. The question that the assignment process needs to answer is whether the allocation is "reasonable", will it permit any municipality to meet a future affordable housing obligation if it chooses to do so. The Task Force was asked to consider whether it believes that the assignments are in line with what might be required by COAH
- It was noted that there is also an question about meeting affordable housing and achieving objectives regarding Pinelands Development Credits
- A current case in the Meadowlands where builders have sued the Meadowlands commission because the development creates an affordable housing obligation without meeting that obligation. This case may result in a decision regarding the state's obligation to affirmatively provide for affordable housing. This case may have applicability to the Pinelands. It was noted that there is a constitutional obligation to provide for affordable housing that should not be ignored in the Housing Assignment process
- There is a basic reason to assure that the local assignments can accommodate COAH obligations. If a builder's remedy suit results in requiring housing that exceeds the capacity of a growth area the courts could require that a forest area be developed. Therefore, it is in the Pinelands interest to assure that COAH obligations can be met within the growth areas.
- The Task Force consider that the COAH obligation be considered as an element of the current local-level assignment, it should not be added to the assignment.
- The final report should note that the local level assignments are not caps, they are an allocation of housing the municipality is required to produce to meet future need, and it would not mean that a municipality could not exceed its cap. It should not be an excuse for a municipality not to provide more housing if the demand and need exists
- The Task Force should not necessarily determine what the COAH obligations are but how COAH obligations should be accommodated within the assignment process
- Recommendation: That the Task Force does not chose to adjust the housing assignments due to affordable housing allocations because the assignments are not maximums and a municipality has the opportunity to provide housing in addition to the assignments to meet its affordable housing obligations. Should include the COAH obligations table in the report as an appendix. Add a footnote that clarifies that the table is a COAH assessment. It was recommended that the COAH obligation table not be included in the final report
- Reserve Capacity – 3 options:

  - Don't adjust the local assignment since there are adequate development opportunities inside the Pinelands to accommodate the 2000 – 2020 assignment as well as foreseeable post 2020 demand; and, some redevelopment opportunities are available throughout the growth areas
  - Don't adjust the local assignment but couple housing opportunity with a minimum density (e.g. in development areas to be served by sewer a minimum 2 dwelling units/acre) to ensure that lands are zoned and used efficiently
  - Increase the local assignment by a specified percentage to account for development opportunities beyond 2020

- The Pinelands plan is an "End Plan" designating what lands should be developed and which ones should be preserved, etc. The Plan does not relate to a specific time period. The assignment process relied on current census data projected out to a specific planning horizon. The question is what happens after that horizon is passed? Also, the Task Force needs to consider how Pinelands Development Credits should be addressed. Finally, in terms of vacant available, developable land, does the assignment make sense? If there are 2000 acres of available developable land and 500 units need to be accommodated should density be set merely by dividing the number of units by the amount of available land, would that result an efficient and effective use of land? If there is a future demand for housing and land has been used inefficiently, how can future demand be accommodated?
- The Task Force does not need to address this issue quantitatively but it would be helpful if the issue was addressed in a qualitative manner.
- Need to recognize redevelopment opportunities as a potential to address future housing need
- Commission should work with Towns to encourage more efficient use of land, encourage development to occur within existing growth areas
- The local level housing allocations table indicates that the amount of land available for development could permit inefficient land utilization that could be addressed through a recommendation on the part of the Task Force to the contrary
- Need to quantify redevelopment opportunities and their effect on demand that may be experienced after 2020 – it may be more effective to consider this issue at some point closer to 2020 based on the development activity that does occur. It was argued that this question should be considered today – the report needs to address this issue.
- It was not necessarily intended that the Task Force recommend specific future densities to ensure land use efficiencies
- The members of the Housing Task Force recommended that the local assignment should not be adjusted since there are adequate development opportunities inside the Pinelands to accommodate the 2000 – 2020 assignment as well as foreseeable post 2020 demand; and, some redevelopment opportunities are available throughout the growth area. However, communities should be encouraged to affirmatively plan for greater land use efficiency to meet the diverse housing needs of the population
- The Commission will amend the Pinelands regulations to establish some minimum standards the municipalities will need to meet to achieve in terms of zoning and land use efficiency. The Staff will have to translate these recommendations in terms of regulatory standards
- PDC obligations – 3 alternatives
  - Don't adjust local assignments, adequate PDC opportunities are already included in the numbers
  - Increase the local assignment to ensure sufficient opportunities to use PDCs based upon an analysis of supply
  - Assume a certain percentage of PDC opportunities are accounted for within the current assignments and the remainder would be added to the assignment
- It was noted that, at least in Egg Harbor Township, lots are being developed at 50% of what they should be in order to meet PDC objectives. How should PDC opportunities be adjusted to encourage greater use?

- The Commission has established in its 5-year plan that the PDC program will be evaluated, the staff has started this effort, and therefore the Task Force is not being asked to assume this obligation but is being asked to make a broad policy statement about what the PDC objectives need to be
- Staff would recommend that the Task Force select the second policy alternative
- The PDC formula should be adjusted to be consistent with the local-level assignments
- The Commission's PDC analysis needs to consider the cost of PDCs and the effect on housing affordability
- The members of the Housing Task Force recommended that the local assignment should not be adjusted at this time. The Pinelands Commission should complete its current re-examination of PDC use. Once this study is completed the Commission should ensure that reasonable opportunities exist for the use of PDCs without undermining opportunities to achieve local housing assignments
- Reviewed 2025 population projections from the Office of Smart Growth (OSG), noted that the Commission's housing assignments would need to be adjusted when OSG formally releases its projections. – noted differences between OSG and DOL data that was used as the basis for the Task Force's housing demand assessment project. It was suggested that the Task Force has concluded what the methodology should be; the Commission should decide what data should be used as the basis for the assignments.
- The housing demand project is attempting to position the Pinelands to accommodate future housing needs. If the demand is less then the assignment, the projected ceilings won't be met. If the demand exceeds the assignments, at some point housing opportunities within the Pinelands will be exhausted. However, if there is a significant divergence from the assignments at some point in the future, the assignments may need to be adjusted.
- It was noted that staff will distribute the conclusions from the meeting for concurrence. Next, staff will prepare a draft report, distribute it to the Task Force and ensure that it reflects their understanding of their conclusions. A public meeting to solicit public comment will then be held following which a Task Force meeting will be held prior to submitting the Final Report to the Commission.

*I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if there are any omissions or inaccuracies. I can be reached by email a*t david.kutner@njpines.state.nj.us*, or by phone at 609-894-7300 x 111.*

MEETING SUMMARY

To: ***Pinelands Housing Task Force***

Subject: October 13, 2005 Meeting

Compiled By: David M. Kutner,
Director of Special Programs

Date: October 28, 2005

ATTENDING:

Rick Brown, Supervising Environmental Specialist Coastal Resources	Department of Environmental Protection
Paul D. Chrystie, Executive Director	Coalition for Housing and the Environment
Alan Feit, Township Administrator	Medford Township
Peter Miller, Township Administrator	Egg Harbor Township
Carleton Montgomery, Executive Director	Pinelands Preservation Alliance
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
John Dourgarian, Assistant to the Commissioner	Department of Transportation
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County
Betty Wilson, Task Force Vice Chair	Pinelands Commission

OTHERS PRESENT:

Keith Henderson	Coalition for Affordable Housing
Jung Kim	Office of Smart Growth
John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

ABSENT

Mike DePalma, Construction Codes Dept	Monroe Township
Alan, Avery, Task Force Chair	Pinelands Commission
Robert Brewer, Planning Director	Cumberland County
Ed McGlinchey, Public Works Director	Winslow Township
Mark Remsa, Planning Director	Burlington County
Andrew Salerno, Township Administrator	Jackson Township
Jim Smith, Planning Director	Cape May County

Meeting Purpose:

1. Review Preliminary Housing Task Force Report
2. Authorize public meeting to present Report
3. Set date for final Housing Task Force meeting
4. Public Comments

Materials Distributed:

- Preliminary Housing Task Force Report (*distributed via e-mail*)
- Comments from Task Force Members (*distributed via e-mail*)

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

- Assignments do not reflect development that has occurred since 2000
- Will be necessary to develop the implementation strategies that will follow from the report, Commission will work with municipalities on an individual basis
- Commission will need to translate recommendations from the report into regulatory (zoning) policy. Commission will need to develop strategies to address PDCs, reserve capacity, efficient use of land, accounting for prior development, etc.
- Task Force outlined a general set of strategies to address the issues of communities that are approaching their 2020 assignments already. It may be necessary to adjust zoning and/or growth area boundaries
- Once implementation strategies are drafted, it may be necessary to reconvene the Housing Task Force to review them
- Suggested that transit should have been a factor influencing the assignments – noted that the NJTransit transit scores were used as the basis to determine whether assignments should have been adjusted based on proximity to transit but that the scores in south Jersey were so low, as compared to the state as a whole, that they resulted in either no or an extremely minor affect and that the Task Force agreed that this would not be used as a factor. Noted that the methodology compared transit scores among south Jersey communities not between south and north Jersey. The question was, was transit sufficient to warrant an adjustment from one town to another. It was also noted that the adjustments for jobs was equally small but was an offset to the transit scores.
- Acknowledged that changes that related to transit were extremely minor but it should be emphasized that these factors should be considered as community planning factors. The report should indicate that these factors should be considered as a means to mitigate the affects of growth particularly within Pineland communities with designated growth areas.
- Page 16 #5: Infrastructure needs to be considered as a factor that influences growth and places a strain on rapidly growing communities and that they need assistance to respond to these issues.
- ***Need to highlight these concerns in the Report summary*** – need to evaluate the issues of infrastructure costs on a local and regional level. Need to bring the appropriate resources to bear to address these issues. Projections are achievable but local county and state governments need to make appropriate commitments of resources to ensure that infrastructure is in place to address demand for services. Needs to be an affirmative statement. Noted that the state used to contribute 90% of school construction costs, has dropped to 45% to 60%. Need to acknowledge the complicated process of approval for infrastructure and all the agencies involved in the process. Noted that DOT annually spends $300 million/yr but is facing a demand for infrastructure maintenance that far outstrips the budget. There is no money available for new transportation investment. Currently approximately 2% of DOT budget is allocated for congestion relief, inadequate.
- The people who pay the price for the failure of government to provide infrastructure tend to be those who need shelter.
- # 5: Need to include a recommendation that calls for coordinated planning and infrastructure investment. Will note that the factors that were considered as constraints and opportunities while they did not have much of an effect regionally, they are important planning considerations that should not be overlooked.
- There are two implementation phases, first is to translate the Task Force recommendations into a regulatory policy that will be applied on a town-by-town process, once completed the Commission will work with each town to adjust the assignments to reflect development that has occurred since 2000. Process will begin after the Commission completes its consideration of the options for implementing the Housing Task Force Report

- The Commission is presently linking the parcel level data to the MOD IV data to have a current database of development activity. Each township will be asked to truth-check the development status maps developed by staff.
- It will be important to describe what the numbers imply when the report is presented in the public meeting
- Report should recommend that timed growth and fiscal impact fee legislation is needed and should be available as tools to assist communities to address infrastructure needs attendant to growth. Need to bring the financial resources to bear to offset costs. Noted that government needs to pay its fair share but that developers also need to be willing to make appropriate contributions
- Need to ensure that impact fees are directly related to development costs and are not used to generate funds for other costs (e.g. operating) that make them attractive to communities that may result in encouraging more development and sprawl
- Commission has already made this recommendations, it may be helpful for the report to emphasize this point
- Needs to be comprehensive and coordinated planning to accommodate development (to provide the community facilities and infrastructure that will be needed) and that planning needs to be undertaken both horizontally (across municipal boundaries) and vertically (state, county, local governments and private sector.). There are a number of techniques to accomplish this including financing and ensuring that infrastructure is available at the appropriate time. There is a variety of tools available to ensure this issue is addressed, timed growth, impact fees, additional bonding, etc. Task Force does not recommend one over the other but that all of these tools need to be considered.
- Report needs to indicate that it is an affirmative obligation of all levels of government and the private sector to participate to make sure that infrastructure and other facilities including transit is in place to achieve the objectives of the Report.
- Page 19 #11: Needs an affirmative sentence for housing; last sentence needs to be a separate paragraph. Suggested title: “housing choice/diversity”
- Page 6, #2, needs to indicate that demographics do matter and that different housing types are needed and that will be addressed in the next stage when the communities develop local level zoning plans
- Page 9, end, Report needs to emphasize that these numbers need to be achieved to meet the needs and whatever that needs to be done should be done to make sure that the assignments are realized
- Report needs to indicate that the assignments are based on DOL numbers and if DOL changes its projections, the assignments will need to be adjusted
- Page 18 and 19 – Concluding note: Housing assignments “may need to be adjusted” if OSG issues revised numbers but only after they are evaluated and accepted by New Jersey communities and counties and the Pinelands Commission
- It may be appropriate for OSG to incorporate the Report assignment into its numbers rather than the other way around. The methodology to assign population projections is sound but the actual assignment may need to be adjusted if OSG number are different that those from DOL. The assignments will not be adjusted every time a new population projection is released but only if a reliable projection is a great disparity with the assignments
- Page 17 - It may be necessary to strengthen the language in the report to indicate that density requirements that promote affordable housing may be needed in those communities that have prior unmet COAH obligations. It is agreed that the future COAH figures are included within the assignments
- Next steps:
  - Revise the report title to indicate that it is preliminary
  - Staff will conduct a public meeting, soliciting public input

  - Input will be compiled (*it will be necessary to establish a date for submission of comments, some date following public meeting*), staff will prepare written response document which will be provided to the Task Force
  - Task Force will decide whether the report should be changed in response to input
  - May be useful to brief reporters prior to the meeting to answer any questions
- Prior to releasing the report it will be necessary to develop a concise explanation for what the numbers mean and what will happen once the report is complete
- Need to clarify the numbering and references to the appendices

*I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if there are any omissions or inaccuracies. I can be reached by email a*t david.kutner@njpines.state.nj.us, *or by phone at 609-894-7300 x 111.*

MEETING SUMMARY

To: ***Pinelands Housing Task Force***

Subject: October 12, 2006 Meeting

Compiled By: David M. Kutner,
Director of Special Programs

Date: October 28, 2006

ATTENDING:

Rick Brown, Supervising Environmental Specialist	Coastal Resources, NJDEP
Paul D. Chrystie, Executive Director	Coalition for Housing and the Environment
Dennis Funaro, Township Planner	Medford Township
Carleton Montgomery, Executive Director	Pinelands Preservation Alliance
Mark Remsa, Planning Director	Burlington County
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
Alice D'Arcy	New Jersey Council on Affordable Housing
Betty Wilson, Task Force Vice Chair	Pinelands Commission

OTHERS PRESENT:

John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
Tony O'Donnell	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

ABSENT

John Dourgarian, Assistant to the Commissioner	Department of Transportation
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County
Peter Miller, Township Administrator	Egg Harbor Township
Mike DePalma, Construction Codes Dept	Monroe Township
Robert Brewer, Planning Director	Cumberland County
Ed McGlinchey, Public Works Director	Winslow Township
Jim Smith, Planning Director	Cape May County

Meeting Purpose:

1. Overview of alternative considered in evaluating density recommendations
2. Review of recommendations regarding the sustainable use of land
3. Next steps
4. Public Comment
5. Adjournment

Materials Distributed:

- 10.06.06 Memo – Sustainable Use of Land – Recommended Density (*distributed via e-mail*)

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

- Reviewed 10.06.06 Memo, noted that the purpose of the meeting was to discuss implementation strategies in relation to the recommendations outlined in the Housing Task Force Report
- 3 recommendations relating to land use efficiency
- Item #1 - overall density of 3 dwellings/acre
  - What was the rational for 3 versus any other density? – noted that there was general agreement that more efficient use of land should be promoted but research did not point to a particular number. 3 units/acre seemed to be consistent with historic development patterns within the region and is consistent with regional and state land use plans (i.e. CAFRA standards and State Development and Redevelopment Plan).
  - Conceptual issue- what is a minimum density for growth area and what is the practical implication? If a community establishes an average density of 3 dwellings/acre and then builds one multifamily development it could result in permitting the remainder of the community to be built at 1-acre zoning while still meeting the density requirement. Should set a standard for a minimum versus an average density to address this point.
  - CAFRA impervious standards suggest that 30% coverage is equivalent to 3 dwellings/acre however, far higher densities are achievable using this 30% coverage limitations – multifamily housing could easily be constructed at far higher densities under a 30% limitation than 3 dwelling/acre.
  - Research does suggest that a 3 dwelling/acre density makes economic sense but it must be related to standards for center-based design.
  - Need to be clear what a center is – the entire growth area in the Pinelands should be considered a center, should not create a center within a growth area
  - Emphasized that the 3 dwellings/acre overall density recommendation is a ***gross*** figure. This includes wetlands acres, and a significant portion of most growth areas is wet. This density does not account for lands used for non-residential purposes such as commercial development and public services. The density does not account for facilities incorporated into every development, i.e. roads. Therefore, when these other factors are accounted for the effect of a gross 3 dwellings/acre density would yield a far higher ***net*** density.
  - The analysis conducted by the Commission has never been undertaken by other agencies to support density recommendations that may be presented in their plans. Concerned that a density of 3 dwellings/acre may merely be confirming the status quo – Commission should consider a higher density, if it can be supported, while providing a relief valve for those areas where such density could not be achievable. Perhaps propose a uniform density in combination with an impervious cover standard. Noted that the Pinelands Towns have widely varying development characteristics
  - Noted that the recommendation does include provisions for density adjustments, both downwards and upwards, where warranted (i.e. where water supply may constrain development potential).
  - In order to prescribe a higher density level it would be necessary to support it - what factors should be considered? *Possible Answer*: use the density reduction criteria set forth in §7:50-5.28 (a) 5. iii
  - It may be almost impossible to establish quantitative adjustment factors, most of the factors that have been applied are qualitative – which means that they are very difficult to administer uniformly

- How does the proposed density relate to the regional development patterns that have already occurred? In terms of zone capacities of the remaining vacant land it would equate to slightly less than 3. Currently, zone capacities, as they relate to the remaining vacant lands in the growth areas throughout the Pinelands, are only slightly less than 3. However, trends clearly indicate that proposed development never equates to zone capacity. Actual development densities tend to be around 60% – 65% of capacity.
- Development densities for growth that has occurred since the inception of the CMP has been around 1.9 to 2 dwellings/acre. This does not account for pre-existing patterns.
- The question is - what impact would the proposed 3 dwelling density have on the growth areas? The objective should be to set a density based on the intent to use up all remaining land less quickly.
- It was noted that using up land less-quickly has never been a goal of the Commission or the Housing Task Force.
- Densities within centers should be far higher – 15 to 16 units per acre with far lower densities outside centers to allow for land to be preserved for open space. A density of 3 dwellings/acre seems too low but it is difficult to determine what the higher number should be.
- Suggestion: Perhaps it should be made clear that the net density would be higher than 3 once all the wetlands, commercial areas, infrastructure, etc. are accounted for.
- How does this recommendation fit in communities with 3rd round COAH obligations? It was noted that the HTF recommended that COAH obligations should not be a factor of consideration; however the Task Force also stressed that nothing that it recommends should preclude a community from meeting its obligation.
- The PDC program is being evaluated separately from the HTF study. The Task Force recommendations will set development goals and then the PDC goals need to be folded into the HTF development goals. HTF densities would not be increased to accomodate the PDC program.
- It was suggested that the PDC program should be restructured so that it does not create a disincentive to achieve higher densities. It would be inconsistent for the Task Force and the Commission to establish higher residential densities in accordance with the Housing Report if the PDC program creates a disincentive to achieve these densities
- It was noted that the Task Force elected not to consider the PDC program – consideration of PDCs need to follow the determination of what type of development pattern should be encouraged within the Pinelands
- The housing plan cannot be a land use management plan, it should provide guidance for local land use decisions – recommendation should be to not follow trend and encourage center-based design, Commission needs to be aware that substantially more work needs to be done to actually accomplish efficient land use
- Density can be defined using a wide array of descriptions; the current proposal is a *gross* figure.
- It was agreed that Haddonfield and Princeton represent examples of efficient land use – these communities have gross densities of less than 3 dwellings/acre – consequently, it is necessary to carefully consider how the term “density” is defined
- Need to consider the practical application of the density proposed – need to consider housing product mix as well as density – The CMP does permit the Commission to prescribe housing types, however the Commission has never elected to exercise this authority

- Item #2 - Centers
  - Task Force recommendation should encourage center-based design as an alternative to sprawl, centers should be based on the hierarchy of municipal types – hamlets, villages, towns etc.

❖ **Consensus**: Task Force agrees that the Commission should advocate that Towns plan centers. Center design standards should vary based on different community types.

- Item #2 - Adjustments
  - There are areas within the Pinelands that are called growth areas but are really rural communities, have developed as such over years, no reasonable expectation that any central waste water would be provided, none now (i..e. Shamong and Tabernacle).Those communities, with a pre-existing rural character, should not have a prescribed development level that is as high as other communities. However they should have an assigned development level that would force them to consider centers at a smaller scale.

❖ **Consensus:** the Task Force agrees that in areas where there is no reasonable expectation that sewer service will be provided and where a rural development pattern has been well-established, a lower development expectation should be created but one that would encourage centers at a scale that is appropriate to the existing development pattern.

- Given the consensus on the preceding points, what requirements should be applied to the balance of the growth area? If a center is established what net density should be applicable to the remainder of the area
  - Need to consider inducements and incentives to assist communities to plan and create centers
  - Should develop a comprehensive capital improvement program
- Implementation recommendations should achieve objective of getting more people in a smaller space so that land is used less quickly

❖ **Consensus:** the Task Force agrees that in metropolitan regional growth areas with sewer service, outside centers, a maximum lot size should be established (a lot size and no greater). Suggestion – 15,000 sq. ft.

- Task Force asked staff to present alternatives to the density recommendation, e.g. higher densities. Emphasized that extensive research was undertaken prior to distribution of the 10.06.06 memo and no empirical data was discovered categorically supporting a definitive density level. Therefore, suggestions that the staff is likely to generate regarding higher density levels are likely to be subjective.
- **Next step** - distribute a memo outlining agreements and consensus reached at this meeting, describe the analysis staff will undertake and recommend whether the Task Force should reconvene. A subsequent meeting will probably be needed. Staff needs to consider how towns will respond to implementation recommendations and how they are likely to respond in developing a zoning plan in response to the proposed regional strategies.
- Consider developing information to help communities visualize centers – design concepts, etc.
- The Task Force was urged to reach conclusions and finish its work with distribution of next set of information and the next possible meeting

I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if you discover any omissions or inaccuracies. I can be reached by email at david.kutner@njpines.state.nj.us*, or by phone at 609-894-7300 x 111.*

MEETING SUMMARY

To: **Pinelands Housing Task Force**

Subject: January 11, 2007 Meeting

Compiled By: David M. Kutner,
Director of Special Programs

Date: January 16, 2007

ATTENDING:

Paul D. Chrystie, Executive Director	Coalition for Housing and the Environment
John Dourgarian, Assistant to the Commissioner	Department of Transportation
Mike DePalma, Construction Codes Dept	Monroe Township
Dennis Funaro, Township Planner	Medford Township
Keith Henderson	New Jersey Council on Affordable Housing
Ed McGlinchey, Public Works Director	Winslow Township
Carleton Montgomery, Executive Director	Pinelands Preservation Alliance
John Peterson, Deputy Director of Planning	Atlantic County
Creigh Rahenkamp, Consultant	New Jersey Builders Association
Joan Verplanck, President	State Chamber of Commerce
Betty Wilson, Task Force Vice Chair	Pinelands Commission

OTHERS PRESENT:

Alice D'Arcy	New Jersey Council on Affordable Housing
Jung Kim	Office of Smart Growth
John Stokes, Executive Director	Pinelands Commission
Larry Liggett, Planning Director	Pinelands Commission
David Kutner, Director of Special Programs	Pinelands Commission

ABSENT

Mark Remsa, Planning Director	Burlington County
Rick Westergaard, Acting Assistant Director of Planning	Gloucester County
Peter Miller, Township Administrator	Egg Harbor Township
Robert Brewer, Planning Director	Cumberland County
Jim Smith, Planning Director	Cape May County
Rick Brown, Supervising Environmental Specialist	Coastal Resources, NJDEP

Meeting Purpose:

1. Overview of alternative considered in evaluating density recommendations
2. Adjournment

Materials Distributed:

- 12.18.06 Memo – Sustainable Use of Land – Analysis Continued (Setting Residential Density) (*distributed via e-mail*)

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING

- Chair reviewed the meeting objective – to finalize the Task Force's recommendations so that the Housing Task Force Report can be completed and forwarded to the Commission for action.
- Primary issue is to make a recommendation regarding development densities in Regional Growth Areas
- Chair outlined 4 options:
    1. Original Report recommendations, which did not include a specific density proposal, left unchanged but the Commission should consider efficient use of land when setting residential density
    2. Task Force could recommend that gross density be set at 3 dwellings/acre
    3. Task Force could recommend that the gross density of 3 dwellings/acre be converted to a net density of 4.35 dwellings/acre
    4. Task Force could recommend an alternative gross or net density
- Reviewed the charge of the Task Force – to examine future housing projections in southern new jersey as they relate to the Pinelands and then propose a future development policy that should be included in the Pinelands Plan – how much development should occur within the RGAs
- First step of methodology was based on population projections, translate them into housing needs, and apportion the need within and outside the Pinelands.
- Second step was for the Task Force to determine whether there were factors that could discourage or encourage housing to locate in any particular area, thereby warranting local adjustments. Task Force concluded that no such adjustments were warranted.
- Other considerations: how to provide for post-2020 development needs and what would constitute an efficient use of land based on the projected demand. Demand was estimated at approximately 37,500 units, vacant developable land was estimated at approximately 40,000 acres which would permit all units to be constructed at 1 dwelling per acre throughout the Pinelands, no ones idea of land use efficiency. As a result, Task Force recommended 1) because adequate land appears to be available no adjustments are needed to account for post 2020 demand and 2) the Pinelands must encourage communities to affirmatively plan for greater land use efficiency to avoid sprawl and meet the diverse housing needs of the population. This recommendation was the basis for the past two meetings of the Task Force, to define what land use efficiency means.
- Recounted staff's initial recommendation to consider a density of 3 dwellings/acre as efficient use of land – Task Force requested further consideration of this recommendation which is the basis for the current analysis and the subject of the present meeting
- Next steps: The Task Force recommendation will be presented to the Commission; the Policy Committee will evaluate recommendation in light of, among other things, the Pinelands Development Credit Program. The Policy Committee will develop a regulatory proposal. If the Commission accepts this policy, each municipality will be required to evaluate their zoning policies to ensure that they are consistent with the Commission's policy. It was stressed that this does not mean that all municipalities will necessarily have to change their current zoning.
- Staff briefly reviewed the approach that was taken to calculate density outlined in the December 18 memo to the Task Force and the two principal proposed options, i.e. to base density on either a net or gross figure. Based on staff's analysis an overall gross density of 3 dwellings per acre is equivalent to a net density of 4.35 dwellings per acre once wetlands (approximate average @ 31%) and non-residential lands (approximate average @ 25%) are discounted. It was noted that the calculations reveal that it would not be possible to zone a significant portion of a community for the lowest

densities because, under such conditions, it is statistically impossible to achieve the target density, thus resolving a major concern expressed by some Task Force members during the November 12 Task Force meeting. Therefore a maximum lot area requirement does not appear necessary.

- Expressing density at 4.35 dwellings per acre as a net figure may be the preferred approach because it accounts for municipalities that have greater or lesser amounts of constrained (wetlands) lands. For example, for two municipalities both with 100 acres of vacant land, under a gross density of 3 dwellings per acre would be required to establish a zoning plan permitting 300 units. If municipality "A" has no wetlands then their entire area could be zoned for 3 units per acre. If 30% of the land in municipality B is un-developable because it is wetlands then certain areas would have to be zoned at far higher densities than 3 in order to achieve the same unit yield. Therefore, if the gross density is translated into a net upland density both of the municipalities would be treated the same and it avoids the dilemma of assigning a large housing obligation to an area that has an extent of constraints that would not realistically permit that level of development.
- In response to the Task Force's request, an analysis was conducted to determine the effect of setting density on a gross basis of 4 dwellings per acre, however the resulting net densities (5.8 dwellings per acre) were so high that it is highly unlikely that municipalities would be willing to accept the related requirement.
- Noted that the Task Force elected not to make a recommendation regarding PDC use and that the PDC Program should be factored into the density requirements not added to it.
- The basis for setting non-residential land at 25% was reviewed. It was noted that this figure is based on a municipality's total tax base (information source: NJ Division of Taxation) and was the overall average for all 202 municipalities in south Jersey. It was noted that there is not a direct relationship between land value and land area however, they are roughly equivalent. Does this non-residential figure include public (exempt) lands, which could occupy a considerable amount of a municipality's non-residential land area? If the figure does not then the number of units that would have to be accommodated would have to be adjusted downward to account for it. Alternatively, if it is accounted for after the obligation is set, it would require higher effective net densities.
- It was suggested that the net density be set at a minimum of 4.8 dwellings per acre to account for a higher percentage of land in a growth area that may actually not be available for residential development, i.e. would be used for non-residential purposes.
- Should net densities account for the actual amount of development that typically occurs, i.e. development tends to be lower than zone capacity? Because the amount of development as a proportion of zone capacity has been increasing over the past several years it would be difficult to determine a factor to capture actual development behavior – therefore, densities should be based on maximum capacity.
- How will the presence of wetlands affect the probability of achieving the objectives for centers – Commission would not endorse a zoning plan that proposes development of centers where it is not possible to accomplish this objective?
- Consider the effect of the proposed policy and compare it to what the current zoning would yield so that the new proposal does not reduce the capacity of the Regional Growth Areas that would be possible under currently applicable zoning. Make sure it doesn't result in unintended consequences.
- The consensus of the Task Force was that density should be expressed as a net figure and should be set at least at 4.5 dwellings per acre.
- ***Recommendation***: That the Commission adopt policies that promote efficient use of land, encourage the development centers, achieve a target residential density of at least 4.5 dwellings per acre net of wetlands and non-residential land; and provide for a diversity of housing options. These policies should be applicable to Pinelands Regional Growth Areas, Towns and appropriate Villages except in those communities where there is no realistic expectation that access to sewer service could be

provided. In such cases the overall residential density should be reduced to 1.5 dwellings per acre but a portion of these areas should, nevertheless, be zoned to enable centers.

- Staff was asked to revise the draft of the Housing Task Force Report to reflect the foregoing recommendation. Any alternative wording proposed by any individual member would be included as a Report addendum.

I believe the preceding summary accurately reflects the proceedings of Housing Task Force meeting. However, please contact me if you discover any omissions or inaccuracies. I can be reached by email at david.kutner@njpines.state.nj.us*, or by phone at 609-894-7300 x 111.*

HOUSING DEMAND ASSESSMENT PROJECT
F i n a l R e p o r t

January, 2007

APPENDIX 3

Meeting Minutes
County Planners Working Group

Summaries of the Proceedings from Following Meetings:
02.05.04
05.06.04
05.27.04
06.21.04

MEMORANDUM

To: *County Planning Directors*

Subject: Housing Allocation Assessment
February 5, 2004 Working Meeting
Meeting Summary

Compiled By: David M. Kutner, Director of Special Programs

Date: February 19, 2004

ATTENDANCE:

Alan Avery	Ocean County, Pinelands Commission
Mathew Pisarski	Cumberland County
John Peterson	Atlantic County
Jim Smith	Cape May County
Mark Remsa	Burlington County
Doug Griffith	Camden County
Bob Lindaw	Atlantic County
Rick Westergaard	Gloucester County
Betty Wilson	Pinelands Commission
Larry Liggett	Pinelands Commission
Frank Donnelly	Pinelands Commission
Russ Davis	Pinelands Commission
John Stokes	Pinelands Commission
David Kutner	Pinelands Commission

MEETING PURPOSE:

1. Review need to revise existing housing capacity projections
2. Review project scope and schedule
3. Present countywide population estimates
4. Describe possible methodology used for population and housing allocation
5. Review next steps in the project

KEY POINTS AND QUESTIONS RAISED DURING MEETING:

- Consider building reserve capacity into the housing projections to allow for growth into the future, beyond the planning horizon

- How does the zone capacity relate to what is actually developed?
- Should the number of units allocated in the original plan be considered the upper limit of the allocation scale?
- Need to establish a cut-off date for data collection – suggested: up to April 1, 2004
- Will use gross County future projections for purpose of unit allocation, need to acknowledge but will not get overly concerned with anomalies such as lack of current sewer, military base closures
- "Field-test" allocation models to support the selected process
- In order to confirm that DOL data should be the source of choice, staff should review DOL projections for 1980, 1990, 2000 to verify that these prior estimates were reasonably accurate
- Need to verify that issued building permits were exercised and that what was built coincides with what the permit was issued for
- Need to consider how the housing allocation process will affect "cross acceptance"
- Staff should distribute the DOL projections for all 21 counties (attached)

DATA REQUEST

During the meeting it was noted that meetings would be scheduled with each of the County Planning Directors to review the DOL population projections and collect the following information:

1. Number of Acres of Vacant Land
   - Amount served by sewer (inside/outside Pinelands)
   - Amount un-served by sewer (inside/outside Pinelands)
   - If available, amount of vacant land by State Planning Area (served/un-served)

2. Proposed Development
   - Number of approved housing units and number of acres that will be consumed, by zoning district

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MEMORANDUM

To: *County Planning Directors*

Subject: Housing Allocation Assessment
May 6, 2004 Working Meeting
Meeting Summary

Compiled By: David M. Kutner, Director of Special Programs

Date: May 18, 2004

ATTENDANCE:

Alan Avery	Ocean County, Pinelands Commission
Pam Weintraub	Cumberland County
Alan Brewer	Cumberland County
John Peterson	Atlantic County
Mark Remsa	Burlington County
Doug Griffith	Camden County
Bob Lindaw	Atlantic County
Rick Westergaard	Gloucester County
Larry Liggett	Pinelands Commission
Frank Donnelly	Pinelands Commission
John Stokes	Pinelands Commission
David Kutner	Pinelands Commission

MEETING PURPOSE:

1. Review county-wide population estimates
2. Review population and housing allocation methodology alternatives
3. Review alternative allocation results
4. Discuss development constraints
5. Consider future (post 2020) capacity reservations
6. Next steps

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING:

- A memorandum entitled "Population and Housing Apportionment Methodology", dated April 28, 2004, had been distributed to all participants via e-mail prior to the meeting. The memorandum provided a detailed description of the allocation methodology and data tables reflecting the application of this methodology using Department of Labor (DOL) population data.
- Staff conducted a power point presentation to review the county-wide population counts and the allocation mythologies

- It was noted that Commission staff had met with representatives from each County planning department to review the DOL counts and to collect any alternative data that should be considered. With the exception of Atlantic County which had recently prepared a refined population assessment, no alternative data was recommended.
- It was noted that, in accordance with the project scope, staff submitted the Atlantic County data to the Office of Smart Growth and the Department of Labor for their comments.
- Participants were asked to verify their acceptance of the use of the Department of Labor population data as the basis for the future population and housing allocations
- The participants unanimously concurred that the DOL data should be used as the basis for the housing allocation process except in the case of Atlantic County for which their refined population data will be used.
- It was noted that the Office of Smart Growth is expected to release updated population data in the immediate future. Staff indicated that if warranted, revised data can readily be incorporated into the allocation formulas
- Staff provided a detailed description of the allocation methodology and the alternative results that were derived using various wetland buffer characteristics. The methodologies are based upon 1995 Land Use Land Cover data from the Department of Environmental Protection (DEP)
- It was noted that Delaware Valley Regional Planning Commission (DVRPC) has 2000 land use data for those Counties within their planning region; Burlington, Camden and Gloucester. Staff agreed to prepare an alternative allocation series using the DVRPC data to compare the results with the DEP data and distribute this information for consideration at the May 27th meeting.
- It was noted that it may not present a significant problem to use land use data for the Counties that is derived from different data sources because the population and housing projections are derived from a common source. However, when allocations are prepared for Regional Growth Areas, it will be necessary to collect vacant land data at a parcel level.
- Staff reviewed a matrix detailing development constraints that should be considered in conjunction with the allocation process. Participants were asked to provide input regarding constraints that should be considered for each County for the May 27th meeting
- Staff reviewed the concept of capacity reservations noting that one alternative reservation method would be to increase the calculated allocation figure to allow a margin for growth after the planning horizon (2020); another suggested alternative was to modify zoning to allow for post-2020 growth, or allow development to "spill-over" into the Agricultural management areas. It was suggested that another alternative would be to prohibit additional growth once the 2020 thresholds are reached.
- Participants were asked to provide input regarding approaches capacity reservations for the May 27th meeting

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MEMORANDUM

To: *County Planning Directors*

Subject: Housing Allocation Assessment
May 27, 2004 Working Meeting
Meeting Summary

Compiled By: David M. Kutner,
Director of Special Programs

Date: June 4, 2004

ATTENDANCE:

Alan Avery	Ocean County, Pinelands Commission
Betty Wilson	Pinelands Commission
Pam Weintraub	Cumberland County
John Peterson	Atlantic County
Mark Remsa	Burlington County
Bob Lindaw	Atlantic County
Rick Westergaard	Gloucester County
Larry Liggett	Pinelands Commission
Frank Donnelly	Pinelands Commission
John Stokes	Pinelands Commission
David Kutner	Pinelands Commission

MEETING PURPOSE:

1. Review population and housing allocation methodology alternatives
2. Review alternative allocation results
3. Discuss development constraints
4. Consider future (post 2020) capacity reservations
5. Next steps

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING:

- A memorandum entitled "Analysis of DVRPC Land Use/Land Cover Data to Calculate Vacant Developable Land", dated May 19, 2004, had been distributed to all participants via e-mail prior to the meeting. The memorandum provided a detailed description of the allocation methodology and data tables reflecting the application of this methodology using Delaware Valley Regional Planning Commission (DVRPC) land use data from 2000.
- Staff reviewed the range of allocation methods currently under consideration
- Staff provided a detailed review of the analysis using DVRPC land use/land cover data

- It was noted that "developable land" is anything within growth areas
- Staff reviewed the differences between the DEP data, which uses the Anderson Classification system for land use codes, and the DVRPC data, which uses classification codes that are unique to the Commission. There is no way to reconcile the two systems. It was noted that the DEP wetlands GIS layer was merged with the DVRPC data to determine the amount of land area that is "not developable", because DVRPC does not have a wetlands classification code.
- It was noted that the use of the DVRPC data will not alter the population figures for each County. Consequently, using the DVRPC data will not alter the number of housing units projected for each County. The use of the DVRPC data *will* affect the calculations for the amount of developable land.
- It was decided that each of the 4 Counties for which DVRPC data is not available – Atlantic, Cumberland, Ocean and Cape May – may, at their discretion, use 2002 aerials to update the DEP land use/land cover data, which is from 1995 (staff will provide a suggested methodology).
- The participants agreed to meet on June 21st to review any further data refinements that should be considered after a review of the 2002 aerials. The meeting will be held at the Pinelands Commission offices, starting at 2:00.
- The participants unanimously concurred that the apportionment methodology, using a 200-foot wetlands buffer within the Pinelands and a 50-foot buffer outside the boundary, was acceptable for the purposes of housing apportionment.
- The question of development constraints was discussed. The only significant development constraint that was identified related to the lot layout configuration defining development density for the Ocean Acres subdivision in Stafford Township in Ocean County. For this project, build-out density will be defined by lot layout and will be unaffected by the apportionment.
- The question of future capacity reservations was discussed. It was concluded that staff should develop recommendations regarding this topic but that this is a policy issue that should be determined through deliberations of the Housing Task Force when it convenes in July.

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MEMORANDUM

To: *County Planning Directors*

Subject: Housing Allocation Assessment
June 21, 2004 Working Meeting
Meeting Summary

Compiled By: David M. Kutner,
Director of Special Programs

Date: June 28, 2004

ATTENDANCE:

Alan Avery	Ocean County, Pinelands Commission
Betty Wilson	Pinelands Commission
Pam Weintraub	Cumberland County
John Peterson	Atlantic County
Mark Remsa	Burlington County
Larry Liggett	Pinelands Commission
Frank Donnelly	Pinelands Commission
John Stokes	Pinelands Commission
David Kutner	Pinelands Commission

MEETING PURPOSE:

1. Review any updated land use data using 2002 aerials.
2. Discuss related adjustments to the housing apportionment methodology
3. Next steps

KEY POINTS AND QUESTIONS DISCUSSED DURING MEETING:

- A memorandum entitled "Suggested Methodology for Adjusting Land Use/Land Cover Data", dated June 2, 2004, had been distributed to all participants via e-mail prior to the meeting. The memorandum outlined an approach for adjusting the 1995/97 NJ Department of Environmental Protection (DEP) Land Use/Land Cover data to reflect development that has occurred between 1995 and 2000 for those Counties (Atlantic, Cape May, Cumberland, and Ocean) for which more current information was not readily available.
- In addition, a memorandum entitled "Housing Allocation Methodology Summary", dated June 8, 2004, was distributed prior to the meeting. This memorandum summarized the methodology that has been selected for apportioning population projections and allocating future housing need throughout the Pinelands.
- Ocean County was the only County that elected to evaluate adjustments to the land use/land cover data in accordance with the methodology suggested by staff. It was concluded that the results of this calculation did not materially affect the resulting determination of the amount of vacant developable

land in the County. In the interest of consistency, Ocean County decided not to include adjusted vacant land estimates for the purpose of the housing apportionment calculations.

- It was noted that the next step in the allocation process would be to determine the amount of housing units that have been developed within the growth areas between January 1, 2000 and December 31, 2003. It was noted that, since the planning horizon for the apportionment project starts in 2000, the number of units that were constructed between 2000 and 2003 will be credited against the projected housing capacity figures for subject growth areas.
- Staff reviewed the discrepancies between the reported number of housing units developed between 2000 and 2003, as reported by Pinelands Commission data, and the number of units reported through the Department of Labor. This data was assembled for communities located entirely within the boundaries of the Pinelands. (*It was noted that DOL data is not constrained by Pinelands boundaries, therefore, for those communities straddling the boundary line, DOL data could not be used.*) In view of this discrepancy, it was agreed that the County Planning Departments would review their records to determine the number of subdivision units that were approved within Regional Growth Areas between 2000 and 2003. This number would be used as the credit for developed units. Staff was asked to prepare a methodology for this procedure that each of the Counties could use to derive an internally consistent estimate of developed units.
- The County planners were asked to provide data regarding subdivisions within growth areas to the Pinelands Commission staff prior to the end of July.

I believe the preceding summary accurately reflects the proceedings of Housing Allocation Assessment meeting. However, please contact me if there are any omissions or inaccuracies. I can be reached by email at david.kutner@njpines.state.nj.us*, or by phone at 609-894-7300 x 111.*

HOUSING DEMAND ASSESSMENT PROJECT
Final Report

January, 2007

APPENDIX 4

Suggested Methodology for Adjusting Land Use/Land Cover Data

MEMORANDUM

To: James J. Smith, Planning Director, Cape May County;
John Peterson, Deputy Director of Planning, Atlantic County;
Mark Remsa, Director, Burlington County Economic Development and Regional Planning;
Robert Brewer, Director Cumberland County Department of Planning and Development;
Pamela Weintraub, Cumberland County Department of Planning and Development;
J. Douglas Griffith, Planning Director, Camden County Department of Public Works;
Rick Westergaard, Assistant Acting Director, Gloucester County Planning Division;
Alan Avery, Planning Director, Ocean County;
Betty Wilson, Commissioner, Pinelands Commission

From: Frank Donnelly, Economist

Subject: Suggested Methodology for
Adjusting Land Use/Land Cover Data

Date: June 2, 2004

During the May 27th Housing Task Force meeting, county planners and their representatives agreed that the 2000 Land Use/Land Cover (LULC) from the Delaware Valley Regional Planning Commission (DVRPC) should be used for the three counties (Burlington, Camden, and Gloucester) for which the data is available. It was also agreed that the four remaining counties (Atlantic, Cape May, Cumberland, and Ocean) had the option to make adjustments to the 1995/97 NJ Department of Environmental Protection (DEP) LULC data to reflect development that has occurred between 1995 and 2000.

In an effort to assure consistency I've outlined an eight-step methodology that can be used to adjust the DEP LULC data. Before undertaking this GIS exercise, it may be useful to first perform a mathematical calculation to determine whether the amount of land developed between 1995 and 2000 will significantly affect the apportionment percentage. If the percentage does not change appreciably, then this exercise may be unnecessary. It should be noted that we are examining development only in State Plan Areas 1 and 2, Designated Centers, RGAs, Towns, and Villages.

METHODOLOGY FOR UPDATING LULC – GRAPHIC OVERLAYS

1. Make a copy of the 1995/97 DEP coverage to create a working coverage that will be used for editing.

2. Open the DEP LULC coverage and the 2002 aerial photos in Arc Map. Lay the DEP coverage over the aerials. You can either make the LULC coverage transparent (recommended – advanced menu under the symbology tab) or set the LULC polygons to "no fill" and use the outline colors for identification. Rather than displaying all of the different Land Covers, specify the Type95 field under unique values under the symbology tab to display the basic categories – Urban, Agriculture, Forest, Water, Wetlands, and Barren Lands. Add other identification layers (municipal boundaries, Pinelands boundaries, state plan boundaries, roads, etc) as necessary.

3. Find areas that have been developed between 1995 and 2002 by identifying development (indicated on the aerials) within the land use polygons that are defined as not developed (agriculture, forest, wetlands). Once these areas are identified, you must determine (presumably by using CO information) if development occurred between 2000 and 2002. The amount of land developed during this period should be deleted from the land area developed between 1995 and 2000. ***Because the year 2000 is the common baseline for all data, only those areas developed between 1995 and 2000 should be counted.***

4. Areas that are being developed (sites that have been cleared for construction) should only be counted as developed if the site was cleared and/or prepared for development in the year 2000 or earlier. Areas that are about to be developed are classified as Barren Land, Transitional Areas in the DEP system, and are defined as "undevelopable" in our study.

5. Once areas developed between 1995 and 2000 have been identified, they must be delineated geographically. In order to do this, use the graphics toolbar to draw polygons around the development areas. If a new development spans two different land use types, create two different polygons – one for each type.

6. Once all recent development inside and outside the Pinelands in development areas (State Plane Areas 1 & 2, Designated Centers, RGAs, towns, and villages) has been geographically identified, select all the graphics and convert them into a shapefile.

7. Open the attribute table for the new 95-00 developed shapefile and edit the table. Add a new field and call it "*newurban"*. Populate this field with something that identifies all of the polygons as developed, such as "yes." ***This is a necessary step that will enable us to integrate your data with our existing LULC coverage***. Add a second field and name it "*former*". Populate this field with the 1995 LULC land use type (agriculture, forest, wetlands). Add a third field and call it "*COyear*" and populate this field with the date the CO was issued for the development within the particular polygon. Save your edits.

8. Once the preceding steps are completed, you can perform a rough calculation by summing the amount of land developed between 1995 and 2000 and subtracting this total from the amount of vacant developable land in the apportionment tables. This is a rough calculation, because any new development that occurred within wetlands or a wetlands buffer cannot be subtracted from the total amount of vacant developable land in the apportionment tables (as all areas within wetlands and wetlands buffer are counted as not developable to begin with). If the apportionment percentage changed appreciably and you would like to incorporate the changes, please provide me with your 95-00 development shape file. I will integrate all of the data and create new tables accordingly.

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APPENDIX 5

Test
Determining Future Households
Using County PPH
versus
Southern New Jersey PPH

Test - Determining Future Households
by Using County PPH Versus Southern New Jersey PPH
Based on Methodology With Wetlands Buffer (200ft Inside / 50ft Outside) DVRPC Iteration 2nd Run DEP LULC

Future Households Using PPH Per County					
County	**Projected Net Pop Change**	**PPH 2000**	**Projected Households**	**Inside Alloc %**	**Projected Households/Units IN**
Atlantic	58,900	2.59	22,740	71%	16,150
Burlington	82,310	2.65	31,060	17%	5,280
Camden	41,570	2.68	15,510	28%	4,340
Cape May	5,170	2.36	2,190	32%	700
Cumberland	12,760	2.73	4,670	4%	190
Gloucester	54,830	2.75	19,940	7%	1,400
Ocean	166,080	2.51	66,170	20%	13,230
TOTAL	**421,620**		**162,280**		**41,290**

Future Households Using PPH for Southern New Jersey					
County	**Projected Net Pop Change**	**PPH 2000**	**Projected Households**	**Inside Alloc %**	**Projected Households/Units IN**
Atlantic	58,900	2.62	22,480	71%	15,960
Burlington	82,310	2.62	31,420	17%	5,340
Camden	41,570	2.62	15,870	28%	4,440
Cape May	5,170	2.62	1,970	32%	630
Cumberland	12,760	2.62	4,870	4%	190
Gloucester	54,830	2.62	20,930	7%	1,470
Ocean	166,080	2.62	63,390	20%	12,680
TOTAL	**421,620**		**160,930**		**40,710**

County	**Difference in Projected Units Between Two Methods**	**Percent Difference**	**Difference in Projected Units Inside Pinelands**	**Percent Difference**
Atlantic	-260	-1%	-190	-1%
Burlington	360	1%	60	1%
Camden	360	2%	100	2%
Cape May	-220	-10%	-70	-10%
Cumberland	200	4%	0	0%
Gloucester	990	5%	70	5%
Ocean	-2,780	-4%	-550	-4%
TOTAL	**-1,350**	**-1%**	**-580**	**-1%**

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APPENDIX 6

Allocating Units
Standard versus Weighted Method

M E M O R A N D U M

TO: HTF

FROM: Frank Donnelly

DATE: August 2, 2004

SUBJECT: Allocating Units – Standard versus Weighted Methods

In the course of responding to some of the concerns raised at the last housing task force meeting, and in thinking about the next steps in terms of breaking the allocation methods down to the next level of geography (i.e. from development levels inside and outside to the specific development levels inside and outside – SPA 1, 2, Centers, RGAs, Towns, and Villages), we have run through several iterations of allocations and have created three possible allocation methodologies.

The first possibility (Method 1 – Unweighted Method) would be to assign units to all areas: SPA 1, SPA 2, Designated Centers, RGAs, Towns, and Villages, based on the same methodology used in the original inside / outside analysis. The amount of vacant developable land for each development area was divided by the county total to get an allocation percentage. I ran initial tests using Atlantic and Cape May Counties and found that the results were problematic. The Villages have a substantial amount of vacant land and would be allocated a substantial number of units based on our current methodology. For example, all of the Villages in Atlantic County have a combined total of 6,600 vacant acres. The villages would receive 27% of Atlantic County's units, which equals 4,400 units. The Pinelands portion of Cape May (which consists of one town and several villages) would receive 700 units, which is unrealistic considering past and current trends. Clearly, this does not make sense. An analysis of population data at the census block level revealed that the RGAs (collectively) grew by 12% between 1990 and 2000, towns grew by 4%, and the villages remained unchanged.

We have counted vacant developable land in the development areas as equal, but in reality this is not the case. We decided to test a new allocation method that would weight the various development areas by density. Since the RGAs have the highest average density (3 d/u per acre) they were given a weight of 1. The average density for towns is approximately 2 d/u per acre, which is 1/3 less than the density of the RGAs. Towns were given a weight of 0.67. Villages have an average density of 1 d/u per acre, which is 2/3 less the density of the RGAs. Villages were given a weight of 0.33. The weights for each management area were multiplied by the amount of vacant developable land in each area, in order to create a weighted acreage. In essence, the land in the towns and villages is "discounted," since it cannot support the same densities as the RGAs. The weighted acreage was then used to calculate allocation percentages.

Weights were also given to the State Planning Areas outside of the Pinelands. Unlike the Pinelands Management areas, the State Planning Areas do not have prescribed densities. We set the weight for the Metropolitan (SPA 1) and Suburban (SPA 2) areas to 1, essentially to match the RGAs. The designated centers presented a different problem – whereas the state planning areas are discrete (they do not overlap), the centers can overlap all planning areas. For example, the City of Camden is entirely within the Metropolitan area, and the entire city is a designated center. To avoid double counting, the areas of designated centers that were within SPAs 1 or 2 were counted as SPA 1 or 2. The areas of designated centers that were outside of SPA 1 and 2 were counted as designated centers. The State Plan does assign an average density of either 2 or 3 d/u per acre for the designated centers, depending on the type

of center. Since most of the designated centers outside SPAs 1 & 2 were small towns or villages, we assigned a weight of 0.67, making them comparable to the Pinelands Towns.

In summary, vacant developable land in State Plan Area 1 (Metro) State Plan Area 2 (Suburban), designated centers, RGAs, Pinelands Towns, and Pinelands Villages was weighted to account for the fact that vacant land in all areas cannot be considered equal. The weights are: 1 for Metro, 1 for Suburban, 0.67 for centers, 1 for RGAs, 0.67 for towns, and 0.33 for villages. The amount of vacant developable land in all of these areas is multiplied by the weight for each area in order to get a weighted acreage.

Using this second method (Method 2 - weighted method), acreage in the Pinelands was discounted by 11,800 acres, and acreage outside the Pinelands was discounted by 5,800 acres. Since the amount of vacant land in the Pinelands was discounted at a greater amount and rate, a greater number of housing units were shifted outside the Pinelands. The Pinelands was allocated 41,300 units under the original method and 37,900 units under the weighted method. The inside allocation percentage decreased for six of the seven counties, shifting between 2% and 7%. The allocation to Gloucester County increased by 1%. Inside the Pinelands the RGAs had a larger allocation percentage while the percentages for towns and villages decreased. In Atlantic County. The allocation percentage for the Atlantic villages went from 27% to 12%, from 4,400 to 1,800. The allocation percentage for Pinelands portion of Cape May went from 32% to 25%, from 700 units to 550.

Finally, we ran another iteration of the weighted methodology (Method 3 - weighted method excluding villages). This methodology is practically the same as the weighted methodology described above (Method 2), except that Villages were removed from the equation. We considered that removing the Villages was reasonable because: characteristically they do not have a counterpart outside the Pinelands (SPA 1 & 2 are similar to RGAs, Designated Centers are similar to Towns, Villages have no counterpart[1]), most development areas are near employment centers or are employment centers themselves and thus population growth can be expected – the Villages are the only areas that consistently do not fit this criteria as they are not employment centers and are overwhelmingly distant from employment centers, and the Villages could serve as areas for reserve capacity. Removing the Villages would shift additional houses outside the Pinelands (since land is being removed inside but not outside) and would shift more houses to the RGAs and Towns inside the Pinelands.

In summary, there are three possible methodologies:

- Method 1 - Standard methodology (not weighted) using all development areas
- Method 2 - Weighted methodology using all development areas
- Method 3 - Weighted methodology using all development areas except Villages – Villages would be for reserve capacity

The first page of tables indicates the different acreages, allocation percentages, and allocated housing units that would result from using the three methods. The second page of tables illustrates how the allocation would break down for each of the development areas per county.

[1] There is a hierarchy of Designated Centers in the State Plan that includes villages and hamlets, but these places have a higher average density compared to the Pinelands Villages.

Comparison of Standard Inside/Outside Allocation
and Weighted Allocation Methods (DRAFT)

Vacant Developable Land With Wetlands Buffer (200ft Inside / 50ft Outside) DVRPC Iteration 2nd Run DEP LULC

Method 1 (Not Weighted) - Allocates to all development areas based on amount of vacant developable land
Method 2 (Weighted) - Allocates to all development areas based on amount of vac dev land weighted to reflect avg density
Method 3 (Weighted) - Allocates to development areas (excluding villages) based on amount of vac dev land weighted to reflect avg density

	Inside Acres Method 1 (Not Weighted)	**Inside Acres Method 2** (Weighted)	**Inside Acres Method 3** (Weighted, No Villages)
Atlantic	24,650	18,460	16,280
Burlington	5,140	4,180	3,710
Camden	5,470	4,810	4,490
Cape May	3,300	1,900	1,600
Cumberland	1,270	420	0
Gloucester	2,400	2,400	2,400
Ocean	10,460	8,750	8,160
TOTAL	**52,690**	**40,920**	**36,640**

	Outside Acres Method 1 (Not Weighted)	**Outside Acres Method 2** (Weighted)	**Outside Acres Method 3** (Weighted, No Villages)
Atlantic	9,870	9,160	9,160
Burlington	24,330	23,160	23,160
Camden	14,150	14,150	14,150
Cape May	7,100	5,570	5,570
Cumberland	29,570	28,250	28,250
Gloucester	29,750	29,520	29,520
Ocean	40,620	39,820	39,820
TOTAL	**155,390**	**149,630**	**149,630**

	Inside Allocation % Method 1 (Not Weighted)	**Inside Allocation % Method 2** (Weighted)	**Inside Allocation % Method 3** (Weighted, No Villages)
Atlantic	71%	67%	64%
Burlington	17%	15%	14%
Camden	28%	25%	24%
Cape May	32%	25%	22%
Cumberland	4%	1%	0%
Gloucester	7%	8%	8%
Ocean	20%	18%	17%

	Inside Units Method 1 (Not Weighted)	**Inside Units Method 2** (Weighted)	**Inside Units Method 3** (Weighted, No Villages)
Atlantic	16,150	15,240	14,550
Burlington	5,280	4,660	4,350
Camden	4,340	3,880	3,720
Cape May	700	550	480
Cumberland	190	50	0
Gloucester	1,400	1,600	1,600
Ocean	13,230	11,910	11,250
TOTAL	**41,290**	**37,890**	**35,950**

	Outside Acres Method 1 (Not Weighted)	**Outside Acres Method 2** (Weighted)	**Outside Acres Method 3** (Weighted, No Villages)
Atlantic	6,590	7,500	8,190
Burlington	25,780	26,400	26,710
Camden	11,170	11,630	11,790
Cape May	1,490	1,640	1,710
Cumberland	4,480	4,620	4,670
Gloucester	18,540	18,340	18,340
Ocean	52,940	54,260	54,920
TOTAL	**120,990**	**124,390**	**126,330**

Weight based on density - dwelling units / acre
Weights for SPA1, SPA2, and RGA = 1
Weights for Designated Centers and Towns = .67
Weight for Villages = .33

Comparison of Standard Inside/Outside Allocation
and Weighted Allocation Methods (DRAFT)

Vacant Developable Land With Wetlands Buffer (200ft Inside/50ft Outside) DVRPC Iteration 2nd Run DEP LULC

Method 1 (Not Weighted) - Allocates to all development areas based on amount of vacant developable land
Method 2 (Weighted) - Allocates to all development areas based on amount of vac dev land weighted to reflect avg density
Method 3 (Weighted) - Allocates to development areas (excluding villages) based on amount of vacant developable land weighted to reflect average density

Acres, Weights, & Weighted Acres By Development Area						
	Urban	**Suburban**	**Designated Centers**	**RGA**	**Towns**	**Villages**
Atlantic	3,440	4,270	2,170	12,790	5,210	6,610
Burlington	7,420	13,390	3,510	3,710	0	1,420
Camden	10,470	3,680	0	4,490	0	970
Cape May	0	2,440	4,670	0	2,390	910
Cumberland	6,280	19,300	3,990	0	0	1,270
Gloucester	7,810	21,230	720	2,400	0	0
Ocean	0	38,190	2,430	7,090	1,600	1,780
TOTAL	**35,420**	**102,500**	**17,490**	**30,480**	**9,200**	**12,960**
Density	3	3	2	3	2	1
Weight	1	1	0.67	1	0.67	0.33
Atlantic	3,440	4,270	1,450	12,790	3,490	2,180
Burlington	7,420	13,390	2,350	3,710	0	470
Camden	10,470	3,680	0	4,490	0	320
Cape May	0	2,440	3,130	0	1,600	300
Cumberland	6,280	19,300	2,670	0	0	420
Gloucester	7,810	21,230	480	2,400	0	0
Ocean	0	38,190	1,630	7,090	1,070	590
TOTAL	**35,420**	**102,500**	**11,710**	**30,480**	**6,160**	**4,280**

Method 1 - Allocated Units By Development Areas						
	Urban	**Suburban**	**Designated Centers**	**RGA**	**Towns**	**Villages**
Atlantic	2,270	2,730	1,360	8,410	3,410	4,320
Burlington	7,770	13,980	3,730	4,040	0	1,550
Camden	8,220	2,950	0	3,570	0	780
Cape May	0	500	990	0	500	200
Cumberland	930	2,940	610	0	0	190
Gloucester	4,790	13,160	400	1,400	0	0
Ocean	0	49,630	3,310	9,260	1,990	1,990
TOTAL	**23,980**	**85,890**	**10,400**	**26,680**	**5,900**	**9,030**

Method 2 - Allocated Units By Development Areas						
	Urban	**Suburban**	**Designated Centers**	**RGA**	**Towns**	**Villages**
Atlantic	2,730	3,410	1,140	10,460	2,960	1,820
Burlington	8,390	15,220	2,800	4,350	0	620
Camden	8,530	2,950	0	3,720	0	310
Cape May	0	720	920	0	460	90
Cumberland	1,030	3,130	420	0	0	50
Gloucester	4,790	13,360	400	1,600	0	0
Ocean	0	52,270	1,990	9,930	1,320	660
TOTAL	**25,470**	**91,060**	**7,670**	**30,060**	**4,740**	**3,550**

Method 3 - Allocated Units By Development Areas						
	Urban	**Suburban**	**Designated Centers**	**RGA**	**Towns**	**Villages**
Atlantic	3,070	3,820	1,300	11,430	3,120	0
Burlington	8,580	15,480	2,720	4,290	0	0
Camden	8,710	3,060	0	3,740	0	0
Cape May	0	750	960	0	490	0
Cumberland	1,040	3,190	440	0	0	0
Gloucester	4,880	13,260	300	1,500	0	0
Ocean	0	52,670	2,250	9,780	1,480	0
TOTAL	**26,280**	**92,230**	**7,970**	**30,740**	**5,090**	**0**

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APPENDIX 7

Crediting Future Housing Allocation Based on Credit for Redevelopment

Crediting Future Housing Allocation Based on Credit for Redevelopment

Homes Classified as "Vacant - Other" in 2000 Census (*Excludes Seasonal Homes, Homes For Sale or Rent, Homes Rented or Sold*)	
Atlantic City	780
Camden	3,600

Allocated Future Units Based on DOL Population Projections / 2000 PPH	
Atlantic County	22,470
Camden County	15,510

Total Future Units Adjusted to Credit for Redevelopment	
Atlantic County	21,960
Camden County	11,910

Notes:

1. Atlantic City and Camden are the only municipalities in the seven Pinelands counties that are classified as "Large Cities" in New Jersey Metropatterns, a 2003 report issued by Ameregis Corporation and sponsored by the New Jersey Regional Coalition

2. Atlantic City and Camden are the only Metropolitan Planning Area (SPA 1) municipalities within the seven Pinelands Counties in the top ten (in South Jersey) in terms of the highest percentage of total housing units that are classified as "Vacant-Other"

Allocation Percentages Inside the Pinelands			
	Method 1	Method 2	Method 3
Atlantic County	71%	67%	64%
Camden County	28%	25%	24%

Allocated Units Inside the Pinelands			
	Method 1	Method 2	Method 3
Atlantic County	16,150	15,240	14,550
Camden County	4,340	3,880	3,720

Allocated Units Inside the Pinelands After Crediting Redevelopment			
	Method 1	Method 2	Method 3
Atlantic County	15,590	14,710	14,050
Camden County	3,330	2,980	2,860

Difference (Redevelopment Credit Versus Non-Credit)			
	Method 1	Method 2	Method 3
Atlantic County	560	530	500
Camden County	1,010	900	860

Method 1 - Allocates to all development areas based on amount of vacant developable land
Method 2 - Allocates to all development areas based on amount of vac dev land weighted to reflect avg density
Method 3 - Allocates to development areas (excluding villages) based on amount of vac dev land weighted to reflect avg density

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APPENDIX 8

Population and Housing Apportionment Methodology

MEMORANDUM

To: **Alan Avery**, Planning Director, Ocean County, Task Force Chair;
Betty Wilson, Commission, Pinelands Commission, Task Force Vice Chair;
Rick Brown, Supervising Environmental Specialist, Coastal Resources, Department of Environmental Protection;
Christina Lado, Assistant Commissioner for Intergovernmental Relations, Department of Transportation;
Charles A. Richman, Assistant Commissioner, Department of Community Affairs;
Joan Verplanck, President, State Chamber of Commerce,:
Paul D. Chrystie, Executive Director, Coalition for Housing and the Environment;
Ed McGlinchey, Public Works Director, Winslow Township:
Mike DePalma, Construction Codes Dept., Monroe Township;
Alan Feit, Township Administrator, Medford Township;
Peter Miller, Township Administrator, Egg Harbor Township;
John, Kennedy, Township Administrator, Jackson Township;
Carleton Montgomery, Executive Director, Pinelands Preservation Alliance:
Creigh Rahenkamp, New Jersey Builders Association;
Robert Brewer, Planning Director, Cumberland County Department of Planning and Development;
James J. Smith, Planning Director Cape May County;
John Peterson, Deputy Director of Planning Atlantic County;
Mark Remsa, Director Burlington County Economic Development and Regional Planning;
J. Douglas Griffith, Planning Director Camden County Department of Public Works;
Rick Westergaard, Acting Assistant Director of Planning, Gloucester County Planning Division

From: Frank Donnelly, Economist

Subject: Population and Housing Apportionment Methodology

Date: June 15, 2004

The Pinelands Commission intends to update and revise, as necessary, housing capacity projections and assignments for Pinelands Regional Growth Areas using current population projections. This reassessment is necessary because the population and housing projections that were published in the original Comprehensive Management Plan (CMP) were based upon estimates that were developed prior to the release of data from the 1980 Census. This base data is long out of date and updates to reflect current conditions may be warranted.

In order to undertake this reassessment, the planning offices of the seven Counties within the jurisdiction of the Pinelands CMP have been asked to review current population projections and help to determine how much population growth should be anticipated within the Pinelands Management Areas. A preliminary methodology for projecting population and for calculating and apportioning population and

housing inside and outside the Pinelands was prepared by Commission staff in consultation with the Pinelands Counties. This memorandum describes the allocation methodology according to the process of evaluation, the steps of which are listed below:

- Selecting Population Projections
- Estimating Future Housing Need
- Apportioning Projections Based on Vacant Developable Land
- Analysis of Land Use/Land Cover Data to Calculate Vacant, Developable, Sewerable Land
- Housing Apportionment
- Variation of Land Use/Land Cover Analysis by Adding a Wetlands Buffer

Selecting Population Projections

After reviewing the data from several different sources, the Commission initially decided to use population projections created by the New Jersey Department of Labor (NJDOL). Commission staff concluded that the NJDOL projections were best suited for the task because of several reasons: they were the most current since they were based on official 2000 census figures; they had a baseline methodology that was policy neutral; theirs was one of the more sophisticated economic-demographic population models incorporating important variables that uniquely affect the Pinelands[1]; they had a lucid, well-documented methodology; and projections were available for all counties through the year 2020.

Pinelands staff met separately with representatives from each of the seven Counties to gather input specific to each County relative to the suitability of the NJDOL numbers. While some County representatives identified limitations, six of the seven Counties approved the use of this data for the project. Atlantic County requested that projections developed as part of their *Smart Growth Project,* by the Center for Regional and Business Research (CRBR) at the Atlantic Cape Community College (ACCC), be used instead of the DOL projections. The CRBR numbers are based on the most current DOL data, but have been refined to reflect variations in local demographics and employment figures.

Estimating Future Housing Need

The DOL data projects future population figures. In order to project the number of future housing units, the projected net population growth for each County was divided by the average number of people per household (pph) listed in the 2000 Census. The result of this calculation yields the number of projected households for each County. *For the purposes of this study, households are considered to be equivalent to the number of housing units*[2].

The data suggests that the number of pph has been decreasing over the past four decades and could continue to decrease into the future. Under this scenario, the number of future housing units would be greater than if the pph remained constant. However, it also appears that a threshold is being approached and that the number of pph may not decrease significantly in the future. Furthermore, using the number of pph from the 2020 Census throughout simplifies the estimation procedure. To provide alternative assessments, scenarios that project the number of pph to the year 2020 and use the result to calculate future housing, can be tested. In addition, it is likely that a reserve in addition to the projected need will be provided and this can accommodate any additional need arising from pph decreasing.

Apportioning Projections Based On Vacant Developable Land

Since the DOL population projections are created at a county level, ***and*** the Pinelands boundaries cut across county boundaries, a methodology was needed to apportion future population and housing between

[1] The model is employment driven but incorporates a separate equation for the 65+ population which is a significant factor in Ocean, Atlantic and Cape May counties, and the model freezes the group quarters population at 2000 levels and does not include these populations in the projections, a significant factor in Burlington and Cumberland counties.

[2] The Census Bureau defines a household as an occupied non-group quarters housing unit, whereas a housing unit is defined as all units, vacant and occupied, group quarters and non-group-quarters.

the Pinelands and Non-Pinelands areas. The comparative population projection methodology, also known as the "Shift-Share" method, was deemed suitable for this task. The Shift-Share method projects the population of smaller regions by apportioning a projection from a larger region based on some ratio. A standard method of apportionment projects population between areas by using each region's current share of the population, or each region's share of past population growth. However, this process fails to account for land as a constraint, i.e. a region may not be able to absorb its projected share of the population if it has insufficient developable land to accommodate growth. This limitation was factored into the population apportionment for certain Regional Growth Areas (RGAs).

Because of land constraints, Commission staff concluded that it would be more accurate to apportion future growth based on the amount of vacant developable land in the primary sewere service areas that will accommodate growth, i.e. the Regional Growth Areas in the Pinelands versus comparable regions outside the Pinelands, such as State Planning Area (SPA) 1 (Metropolitan) and State Planning Area 2 (Suburban). Staff conferred with representatives from the seven Counties who agreed that this was a sound approach; however representatives from certain Counties noted that a considerable degree of growth was occurring in areas outside of the Pinelands ***and*** outside SPA 1 and 2. Growth will certainly occur outside of development areas inside and outside the Pinelands, but the purpose of this study is not to project future population and housing and the amount of developable land for *all* regions of South Jersey. Rather, the purpose is to formulate an equitable method for allocating housing demand between the RGAs and a comparable area. Never-the-less, in response to these concerns, Commission staff added "Designated Centers" to SPA 1 and 2 for the purposes of allocating future housing. In order to balance the equation with comparable sewerable zones inside the Pinelands, Pinelands Towns and Villages were also added to the equation.

In summary, future population and housing would be apportioned inside and outside of the Pinelands for each county based on the amount of vacant developable land outside the Pinelands in SPA 1, 2, and designated centers, and inside the Pinelands in RGAs, towns, and villages (collectively known as development areas).

Representatives from each County were asked to provide the Commission staff with data on the amount of vacant developable land inside and outside the Pinelands by development area. Due to time and resource constraints, the majority of the Counties were unable to provide this information in a uniform format. Estimates for vacant land were provided for areas of varying size based on varying definitions and from different points in time. Commission staff explored other avenues to collect this information, but the amount of vacant developable land at a county level for all the Counties within the Pinelands was not available from a single, viable source. Representatives from some of the Counties suggested that the Commission conduct a GIS analysis using Land Use and Land Cover data from 2000 in order to obtain this information. Such an analysis would create data from a single source for all the Counties at the same point in time, in a digital format[3]. Commission staff did conduct this analysis using Arc GIS 8.

The methodology and its iterations are provided in detail as an appendix to this memorandum *(see Appendix 1. Analysis of Land Use/Land Cover Data to Calculate Vacant Developable Land).* The methodology was then applied using the population and vacant developable land estimates and the data tables in *Appendix 2* reflect the results of this analysis.

[3] this is also the beginning of the time frame for the 2020 projections

POPULATION AND APPORTIONMENT METHODOLOGY
APPENDIX 1

Analysis of Land Use/Land Cover Data to Calculate Vacant Developable Land

1. 1997 Land Use/Land Cover (LULC) data was obtained from the NJ Department of Environmental Protection (NJ DEP). The data was derived from color infrared imagery and was created by Aerial Information Systems in conjunction with the DEP. The coverages were finalized in February of 2001. The data was divided into several different coverages based on Watershed Management Areas. Commission staff combined the GIS coverage for each of the watersheds into one, unified coverage that included the seven Pinelands counties.

2. Commission staff overlaid a public land coverage, also obtained from the NJ DEP, on the LULC, and merged these two coverages into one layer. As a result, each of the land use polygons was assigned an attribute field that indicated whether the land is public/non-profit or private.

3. The boundaries for the areas of study area (SPA 1, SPA 2, designated centers, RGAs, Pinelands Towns, and Pinelands Villages) were laid over the LULC coverage.

4. All LULC polygons with centers within the boundaries of the RGAs, towns, and villages were selected.

5. The selected polygons were exported from the LULC coverage into a new layer. This new layer contains all LULC polygons in Pinelands development areas.

6. The attribute table for this new layer was exported from ArcGIS as a DBF file.

7. This DBF file was imported into Microsoft Access 2000.

8. In Access, specific land use codes that qualified as vacant developable land were queried. The land use classification system used by the DEP is a modified version of the standard Anderson et. al. classification system used by the United States Geological Survey (USGS). The system is composed of four digit hierarchical codes that designate LULC. The first digit represents the broadest and most general categories, while the fourth digit represents the smallest and most specific categories. The DEP LULC GIS coverage is generally subdivided to the two digit, and sometimes three digit, categories. Commission staff selected the following codes as vacant and developable within the study areas:

   2000 – Agricultural, all uses
   4000 – Forest, all cover
   1700 – Urban, Other Urban or Built Up Land
   7300 – Barren Land, Extractive Mining
   7600 – Barren Land, Undifferentiated Barren Lands

   The following codes were considered undevelopable, because they were already developed or cannot be developed due to some physical constraint:

   1000 – Urban or Built up Land, all uses except 1700
   5000 – Water, All Cover
   6000 – Wetlands, All Cover
   7000 – Barren Land, all uses except 7300 and 7600

In some cases compromise was necessary in selecting what was and was not developable. The "1700 Other Urban or Built-Up land" use category includes the following three digit codes: 1710 Cemeteries, 1720 Undeveloped Land Within Urban Areas, 1730 Inactive Land With Street Patterns, and 1740 Open Space Areas. The DEP LULC GIS coverage does not break the second-level 1700 category down to the third-level; so relevant land use patterns could not be separated from the irrelevant ones (i.e. cemeteries are not vacant or developable but the other uses certainly are). Never-the-less, the 1700 level was included since the other land uses are important sources of developable land, and cemeteries represent a small fraction of the total amount of land. For the purposes of apportionment, they will not have a significant affect.

Extractive Mining (7300) was included because mines are likely sources of developable land following cessation of operations. On the other hand, Altered Land (7400), which includes solid waste and dredge material disposal areas, were considered undevelopable.

9. After vacant developable land uses were queried and the total acreage for each county was calculated, all lands that were classified as public were removed from the count and the final acreage was tallied for "***Inside***" areas (development areas inside the Pinelands).

10. Steps 4 through 9 were repeated for SPA 1, and 2, and designated centers. The only variation occurred in step 4. All of the development areas within the study are discrete, i.e. they are separate areas that do not overlap. Designated centers are the only exception, because they can be discrete, they can coincide with an SPA boundary, or they can cross parts of one or more SPAs. In order to avoid an over count, LULCs in SPA 1 and 2 were selected first, then LULCs were selected from within the centers and added to the previously selected LULCs in SPA 1 and 2. Steps 5 through 9 were repeated to create a tally for vacant developable land for "***Outside***" zones (development areas outside the Pinelands) for each county.

Housing Apportionment

11. An acreage table with outside and inside zones for each county was created in Microsoft Excel. The vacant developable land for inside and outside zones for all seven Counties was calculated. The vacant developable acreage for the inside zone was divided by the total vacant developable acreage for each County to obtain the percentage of the total vacant developable land that is in the Pinelands portion of that County. This percentage, providing concurrence of the Housing Task Force, will be used in the population and housing allocation.

12. The projected net population change for each County was multiplied by that County's allocation percentage. The result is the number of projected residents of the County who will live inside the Pinelands development areas in each County.

13. The projected net population change was multiplied by the number of persons per household from the 2000 Census to yield the number of projected households for each county. The projected number of households was multiplied by the County's allocation percentage. The result is the number of projected housing units that will have to be built in order to accommodate 2020 future housing need for the projected population inside the Pinelands development areas of each county.

Second Variation of Land Use/Land Cover Analysis: Adding a Wetlands Buffer

The initial LULC analysis discounted wetlands as being vacant, developable land. However, The Pinelands Commission prohibits development within three hundred feet of the edge of wetlands, while jurisdictions outside the Pinelands prohibit development near wetlands to a varying degree. In effect,

these regulations greatly reduce the amount of land that can be considered vacant and developable[4]. In order to reflect this, the following steps were taken to perform a second alternative LULC analysis:

1. All wetlands within the LULC coverage were selected and a three hundred foot buffer was created around the wetlands.

2. The wetlands and the wetlands buffer were exported into a separate coverage.

3. The wetlands buffer coverage was laid over the LULC coverage, and these two coverages were joined together. As a result, each land use polygon was given an attribute field indicating whether or not it was within the wetlands buffer.

4. Steps 2 through 8 of the initial LULC analysis were repeated for development areas inside and outside the Pinelands.

5. In step 9, all land use polygons that were public and all polygons within the wetlands buffer were removed and not considered as vacant developable land.

6. Steps 11 through 13 were repeated, creating new apportionments and estimates.

3rd Variation of Land Use/ Land Cover Analysis: Adding a Wetlands Buffer

The initial wetlands buffer analysis created a 300-foot buffer which is the maximum buffer in the Pinelands and is typical in the Preservation and Forest areas. But buffers in development areas are often smaller and vary in width according to the quality of the wetlands. Landowners can apply for waivers that can also reduce the amount of undevelopable wetlands. In contrast, *outside* the Pinelands, development can occur within 150 feet, within 50 feet, or adjacent to wetlands depending on the quality of the wetlands.

This third iteration of the analysis accounts for these factors by developing more realistic wetlands buffers. After consulting with the Commission's Development Review staff, who often go into the field to survey wetlands, a 200-foot buffer was selected for wetlands inside the boundary and a 50-foot buffer was selected for wetlands outside the boundary. The following steps were taken to perform a third alternative LULC analysis:

1. All wetlands were selected in the LULC coverage and were exported from the LULC coverage into a new coverage. This new coverage consists entirely of wetlands.

2. First, a Pinelands wetlands buffer coverage had to be created. The Pinelands Management Area (PMA) boundary was laid over the wetlands coverage.

3. All wetlands that were within the PMA were clipped out of the wetlands coverage and a new Pinelands wetlands coverage was created.

4. A 200-foot buffer was drawn around the Pinelands wetlands to create a new Pinelands wetlands buffer coverage.

5. The Pinelands wetlands buffer coverage was trimmed to remove buffers that crossed the PMA boundary. The Pinelands wetlands buffer coverage was complete.

6. Second, a Non-Pinelands wetlands buffer coverage had to be created. The PMA boundary was laid over the wetlands coverage.

[4] This is not as simple as is stated here: zoning generally applies to the entire site and ***may*** permit zone densities to be achieved on the developable uplands portion through some form of clustering.

7. All wetlands that were within the PMA were erased, leaving only wetlands outside the PMA. This became a new Non-Pinelands wetlands coverage.

8. A 50-foot buffer was drawn around the Non-Pinelands wetlands to create a new Non-Pinelands wetlands buffer coverage.

9. The Non-Pinelands wetlands buffer coverage was trimmed to remove buffers that crossed the PMA boundary. The Non-Pinelands wetlands buffer coverage was complete.

10. The Pinelands wetlands buffer coverage and the Non-Pinelands wetlands buffer coverage were then joined to create one, unified wetlands buffer coverage.

11. The unified wetlands buffer coverage was then merged with the LULC coverage, and polygon areas were recalculated. As a result, all polygons in the LULC were assigned a number that indicated one of the following conditions:
    - The polygon was inside a 50-foot buffer outside the Pinelands
    - The polygon was outside a 50-foot buffer outside the Pinelands
    - The polygon was inside a 200-foot buffer inside the Pinelands
    - The polygon was outside a 200-foot buffer inside the Pinelands

12. Steps 2 through 8 of the initial LULC analysis were repeated for development areas inside and outside the Pinelands.

13. In step 9, all land use polygons that fell within wetlands buffers were removed a not considered as vacant developable land.

14. Steps 11 through 13 were repeated, creating new apportionments and estimates.

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Data Analysis

Please see accompanying data tables

Housing Allocation Without and With Wetlands Buffer			
Change In Pinelands Allocation Percentage			
	Without Buffer	With 300ft Buffer	With 50/200ft Buffer
Atlantic	74%	75%	72%
Burlington	21%	22%	17%
Camden	27%	33%	26%
Cape May	34%	40%	32%
Cumberland	5%	5%	5%
Gloucester	7%	9%	6%
Ocean	22%	24%	19%
Change In Pinelands Housing Unit Allocation			
	Without Buffer	With 300ft Buffer	With 50/200ft Buffer
Atlantic	16,830	17,060	16,370
Burlington	6,520	6,830	5,280
Camden	4,190	5,120	4,030
Cape May	740	880	700
Cumberland	230	230	230
Gloucester	1,400	1,790	1,200
Ocean	14,560	15,880	12,570
Total	**44,470**	**47,790**	**40,380**
Change In Pinelands Population Allocation			
	Without Buffer	With 300ft Buffer	With 50/200ft Buffer
Atlantic	43,590	44,180	42,410
Burlington	17,290	18,110	13,990
Camden	11,220	13,720	10,810
Cape May	1,760	2,070	1,650
Cumberland	640	640	640
Gloucester	3,840	4,930	3,290
Ocean	36,540	39,860	31,560
Total	**114,880**	**123,510**	**104,350**

Developable Vacant Land for Housing Allocation (DRAFT) - No Wetlands Buffer							
County	**Outside Zones**	**Vacant Acres OUT**	**Inside Zones**	**Vacant Acres IN**	**TOTAL IN+OUT**	**% Outside**	**% Inside**
Atlantic	PA1 & PA2 & Designated Centers	10,370	RGA & Towns & Villages	29,350	39,720	26%	74%
Burlington	PA1 & PA2 & Designated Centers	33,330	RGA & Towns & Villages	9,050	42,380	79%	21%
Camden	PA1 & PA2 & Designated Centers	20,700	RGA & Towns & Villages	7,590	28,290	73%	27%
Cape May	PA1 & PA2 & Designated Centers	7,920	RGA & Towns & Villages	4,070	11,990	66%	34%
Cumberland	PA1 & PA2 & Designated Centers	27,670	RGA & Towns & Villages	1,480	29,150	95%	5%
Gloucester	PA1 & PA2 & Designated Centers	38,730	RGA & Towns & Villages	2,830	41,560	93%	7%
Ocean	PA1 & PA2 & Designated Centers	43,460	RGA & Towns & Villages	12,540	56,000	78%	22%
TOTAL		**182,180**		**66,910**	**249,090**		

Note: Vacant Acreage Inside and Outside from 1997 LULC

Projected Housing Units (DRAFT) - No Wetlands Buffer						
County	**Projected Net Pop Change**	**PPH 2000**	**Projected Households**	**Inside Allocation %**	**Projected Households/Units IN**	**Projected Households/ Units OUT**
Atlantic	58,900	2.59	22,740	74%	16,830	5,910
Burlington	82,310	2.65	31,060	21%	6,520	24,540
Camden	41,570	2.68	15,510	27%	4,190	11,320
Cape May	5,170	2.36	2,190	34%	740	1,450
Cumberland	12,760	2.73	4,670	5%	230	4,440
Gloucester	54,830	2.75	19,940	7%	1,400	18,540
Ocean	166,080	2.51	66,170	22%	14,560	51,610
TOTAL	**421,620**		**162,280**		**44,470**	**117,810**

Projected Net Population Change from NJ Dept of Labor for 2020 Except Atlantic County (CRBR ACCC)

PPH (Persons Per Household) from 2000 Census

Projected Population / PPH = Projected Households

Number of projected households is equivalent to number of projected units for this analysis

Projected Population (DRAFT) - No Wetlands Buffer					
County	**Projected Net Pop Change**	**Percent Change 2000-2020**	**Inside Alloc %**	**Projected Pop IN**	**Projected Pop Out**
Atlantic	58,900	18%	74%	43,590	15,310
Burlington	82,310	19%	21%	17,290	65,020
Camden	41,570	8%	27%	11,220	30,350
Cape May	5,170	5%	34%	1,760	3,410
Cumberland	12,760	9%	5%	640	12,120
Gloucester	54,830	22%	7%	3,840	50,990
Ocean	166,080	33%	22%	36,540	129,540
TOTAL	**421,620**	**18%**		**114,880**	**306,740**

Projected Net Population Change from NJ Dept of Labor for 2020 Except Atlantic County (CRBR ACCC)

Projected population apportioned inside and outside = Projected Net Change X Percentage of Vacant Developable Land Inside

Developable Vacant Land for Housing Allocation (DRAFT) - With 300ft Wetlands Buffer

County	Outside Zones	Vacant Acres OUT	Inside Zones	Vacant Acres IN	TOTAL IN+OUT	% Outside	% Inside
Atlantic	PA1 & PA2 & Designated Centers	7,580	RGA & Towns & Villages	22,650	30,230	25%	75%
Burlington	PA1 & PA2 & Designated Centers	18,040	RGA & Towns & Villages	5,080	23,120	78%	22%
Camden	PA1 & PA2 & Designated Centers	12,430	RGA & Towns & Villages	6,020	18,450	67%	33%
Cape May	PA1 & PA2 & Designated Centers	4,700	RGA & Towns & Villages	3,110	7,810	60%	40%
Cumberlan	PA1 & PA2 & Designated Centers	20,880	RGA & Towns & Villages	1,040	21,920	95%	5%
Gloucester	PA1 & PA2 & Designated Centers	22,580	RGA & Towns & Villages	2,220	24,800	91%	9%
Ocean	PA1 & PA2 & Designated Centers	31,200	RGA & Towns & Villages	9,860	41,060	76%	24%
TOTAL		**117,410**		**49,980**	**167,390**		

Vacant Acreage Inside and Outside from 1997 LULC with 300 foot Wetlands Buffer

Revised May 3, 2004 to correct buffer error

Projected Housing Units (DRAFT) - With 300ft Wetlands Buffer						
County	**Projected Net Pop Change**	**PPH 2000**	**Projected Households**	**Inside Alloc %**	**Projected Households/Units IN**	**Projected Households/Units OUT**
Atlantic	58,900	2.59	22,740	75%	17,060	5,680
Burlington	82,310	2.65	31,060	22%	6,830	24,230
Camden	41,570	2.68	15,510	33%	5,120	10,390
Cape May	5,170	2.36	2,190	40%	880	1,310
Cumberland	12,760	2.73	4,670	5%	230	4,440
Gloucester	54,830	2.75	19,940	9%	1,790	18,150
Ocean	166,080	2.51	66,170	24%	15,880	50,290
TOTAL	**421,620**		**162,280**		**47,790**	**114,490**

Projected Net Population Change from NJ Dept of Labor for 2020 Except Atlantic County (CRBR ACCC)

PPH (Persons Per Household) from 2000 Census

Projected Population / PPH = Projected Households

Number of projected households is equivalent to number of projected units for this analysis

Projected Population (DRAFT) - With 300ft Wetlands Buffer					
County	**Projected Net Pop Change**	**Percent Change 2000 - 2020**	**Inside Alloc %**	**Projected Pop IN**	**Projected Pop Out**
Atlantic	58,900	18%	75%	44,180	14,720
Burlington	82,310	19%	22%	18,110	64,200
Camden	41,570	8%	33%	13,720	27,850
Cape May	5,170	5%	40%	2,070	3,100
Cumberland	12,760	9%	5%	640	12,120
Gloucester	54,830	22%	9%	4,930	49,900
Ocean	166,080	33%	24%	39,860	126,220
TOTAL	**421,620**	**18%**		**123,510**	**298,110**

Projected Net Population Change from NJ Dept of Labor for 2020 Except Atlantic County (CRBR ACCC)

Projected population apportioned inside and outside = Projected Net Change X Percentage of Vacant Developable Land Inside

Developable Vacant Land for Housing Allocation (DRAFT) - With Wetlands Buffer (200 ft Inside/50 ft Outside)							
County	**Outside Zones**	**Vacant Acres OUT**	**Inside Zones**	**Vacant Acres IN**	**TOTAL IN+OUT**	**% Outside**	**% Inside**
Atlantic	PA1 & PA2 & Desig Centers	9,270	RGA & Towns & Villages	24,390	33,660	28%	72%
Burlington	PA1 & PA2 & Desig Centers	28,400	RGA & Towns & Villages	5,930	34,330	83%	17%
Camden	PA1 & PA2 & Desig Centers	18,490	RGA & Towns & Villages	6,500	24,990	74%	26%
Cape May	PA1 & PA2 & Desig Centers	7,120	RGA & Towns & Villages	3,380	10,500	68%	32%
Cumberland	PA1 & PA2 & Desig Centers	25,250	RGA & Towns & Villages	1,190	26,440	95%	5%
Gloucester	PA1 & PA2 & Desig Centers	33,880	RGA & Towns & Villages	2,350	36,230	94%	6%
Ocean	PA1 & PA2 & Desig Centers	40,730	RGA & Towns & Villages	9,750	50,480	81%	19%
TOTAL		**163,140**		**53,490**	**216,630**		

Vacant Acreage Inside and Outside from 1997 LULC with 300 foot Wetlands Buffer

Projected Housing Units (DRAFT) - With Wetlands Buffer (200ft Inside / 50ft Outside)						
County	**Projected Net Pop Change**	**PPH 2000**	**Projected Households**	**Inside Alloc %**	**Projected Households/Units IN**	**Projected Households/Units OUT**
Atlantic	58,900	2.59	22,740	72%	16,370	6,370
Burlington	82,310	2.65	31,060	17%	5,280	25,780
Camden	41,570	2.68	15,510	26%	4,030	11,480
Cape May	5,170	2.36	2,190	32%	700	1,490
Cumberland	12,760	2.73	4,670	5%	230	4,440
Gloucester	54,830	2.75	19,940	6%	1,200	18,740
Ocean	166,080	2.51	66,170	19%	12,570	53,600
TOTAL	**421,620**		**162,280**		**40,380**	**121,900**

Projected Net Population Change from NJ Dept of Labor for 2020 Except Atlantic County (CRBR ACCC)

PPH (Persons Per Household) from 2000 Census

Projected Population / PPH = Projected Households

Number of projected households is equivalent to number of projected units for this analysis

Projected Population (DRAFT) - With Wetlands Buffer (200 ft Inside/50 ft Outside)					
County	**Projected Net Pop Change**	**Percent Change 2000-2020**	**Inside Alloc %**	**Projected Pop IN**	**Projected Pop Out**
Atlantic	58,900	18%	72%	42,410	16,490
Burlington	82,310	19%	17%	13,990	68,320
Camden	41,570	8%	26%	10,810	30,760
Cape May	5,170	5%	32%	1,650	3,520
Cumberland	12,760	9%	5%	640	12,120
Gloucester	54,830	22%	6%	3,290	51,540
Ocean	166,080	33%	19%	31,560	134,520
TOTAL	**421,620**	**18%**		**104,350**	**317,270**

Projected Net Population Change from NJ Dept of Labor for 2020 Except Atlantic County (CRBR ACCC)

Projected population apportioned inside and outside = Projected Net Change X Percentage of Vacant Developable Land Inside

HOUSING DEMAND ASSESSMENT PROJECT
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January, 2007

APPENDIX 9

Inside Population and Housing Apportionment Methodology

MEMORANDUM

To: **Alan Avery**, Planning Director, Ocean County, Task Force Chair;
Betty Wilson, Commission, Pinelands Commission, Task Force Vice Chair;
Rick Brown, Supervising Environmental Specialist, Coastal Resources, Department of Environmental Protection;
John Dourgourian, Assistant to the Commissioner, Department of Transportation;
Paul Stridick, Deputy Director of the Division of Housing, Department of Community Affairs;
Joan Verplanck, President, State Chamber of Commerce;
Paul D. Chrystie, Executive Director, Coalition for Housing and the Environment;
Ed McGlinchey, Public Works Director, Winslow Township;
Mike DePalma, Construction Codes Dept., Monroe Township;
Alan Feit, Township Administrator, Medford Township;
Peter Miller, Township Administrator, Egg Harbor Township;
John Kennedy, Township Administrator, Jackson Township;
Carleton Montgomery, Executive Director, Pinelands Preservation Alliance;
Creigh Rahenkamp, New Jersey Builders Association;
Robert Brewer, Planning Director, Cumberland County Department of Planning and Development;
James J. Smith, Planning Director Cape May County;
John Peterson, Deputy Director of Planning Atlantic County;
Mark Remsa, Director Burlington County Economic Development and Regional Planning;
J. Douglas Griffith, Planning Director Camden County Department of Public Works;
Rick Westergaard, Acting Assistant Director of Planning, Gloucester County Planning Division

From: David M. Kutner, Director of Special Programs

Subject: Inside Pinelands Population and Housing Apportionment Methodology

Date: September 10, 2004

At the conclusion of the meeting of August 19th, the Housing Task Force agreed that, with regard to the assignment of housing from 2000 through 2020 in South Jersey inside and outside the Pinelands:

1. A simple equation that relies on Department of Labor population data and land use/land cover data for 1997/2000 from the Department of Environmental Protection and the Delaware Valley Regional Planning Agency for the amount of developable land, will be employed;
2. Development area inside the Pinelands will include regional growth areas, Pinelands Towns and that portion of Pinelands Villages that is already served by sewers or slated for sewer service;
3. The inside/outside allocation will be county-specific.

The next step in updating housing capacity projections and assignments is to determine what methodology should be used to allocate the projected housing demand among the development areas (RGAs, Towns and Villages within sewer service areas) ***within*** the Pinelands. Staff proposes using, as an

initial step, methodology that mirrors the approach that the Task Force agreed to use for the Inside/Outside Allocation. In summary, this initial working allocation methodology would be undertaken in accordance with the following steps:

- Select County-wide population projections derived through the inside/outside calculation to estimate Housing need
- Determine the amount of vacant, developable land within the RGAs, Towns, and select Villages using the DEP and DVRPC land use/land cover data
- Delete wetlands and wetlands buffers from the estimates of vacant, developable land to derive the relevant proportion of any given development area within the Pinelands to accommodate the projected housing demand

This methodology is described in detail as an appendix to this memorandum *(see Appendix 1. Analysis of Land Use/Land Cover Data to Calculate Initial Year 2000 Vacant Developable Land for Allocation Purposes).*

Once the initial calculation of the municipal allocation is completed it will be necessary to perform a series of additional iterations of the methodology to account for constraints and/or adjustments to reflect local conditions. The steps to perform these additional iterations are as follows (not necessarily in this order):

- Review and quantify all constraints (such as absence of infrastructure), which could typically result in an allocation reduction if not insurmountable.
- Identify adjustments that may be needed to meet the goals of the Comprehensive Management Plan or other public goals (e.g. COAH obligations), which could typically result in an allocation increase.
- Determine how reserve capacity and Pinelands Development Credits (PDCs) will be accommodated in the allocation process.
- Reduce the local allocation to account for housing units that have already been committed for development between 1/01/00 and 12/31/03 (an example of a known adjustment).
- Calculate the amount of land within the RGAs, Towns and Villages that remains vacant and developable as of 12/31/03.

After completing each of the foregoing steps it may be necessary to conduct a recalculation of the allocation methodology for the RGAs, Towns and Villages within each County, and perhaps reexamine the inside/outside allocation.

Once these steps are completed, the last step in the process is to assign housing densities (overall density as well as density ranges) within each of the RGAs, Towns and Villages.

INSIDE PINELANDS APPORTIONMENT METHODOLOGY
APPENDIX 1

Analysis of Land Use/Land Cover Data
to Calculate Initial Year 2000 Vacant Developable Land for Allocation Purposes[1]

1. For Cape May, Ocean, Atlantic and Cumberland Counties, the boundaries for the RGAs, Pinelands Towns, and Pinelands Villages were laid over the 1997 Land Use/Land Cover (LULC) data obtained from the NJ Department of Environmental Protection (NJ DEP). For Burlington, Camden, and Gloucester Counties the boundaries for the RGAs, Pinelands Towns, and Pinelands Villages were laid over the 2000 Land Use/Land Cover (LULC) data was obtained from the Delaware Valley Regional Planning Commission (DVRPC)
2. The public land coverage obtained from the DEP was laid over the DEP and DVRPC LULC coverages, and these two coverages were merged into one. As a result, each of the land use polygons was assigned an attribute field that indicated whether the land is public/non-profit or private.
3. Wetlands from the 1997 DEP coverage was merged with the LULC coverage, so that all land use polygons were clipped and marked as "wetlands" or "not wetlands" in the attribute table.
4. The wetlands with a 200 foot buffer was merged with the LULC coverage, so that all land use polygons were clipped and designated as being either inside or outside the buffer.
5. The LULC cover was queried in Microsoft Access using DEP's land use classification system for Cape May, Ocean, Atlantic and Cumberland Counties and the DVRPC's classification system for Burlington, Camden, and Gloucester Counties. Commission Staff selected the following codes as vacant and developable within the study areas:

   DEP Codes
   2000 – Agricultural, all uses
   4000 – Forest, all cover
   1700 – Urban, Other Urban or Built Up Land
   7300 – Barren Land, Extractive Mining
   7600 – Barren Land, Undifferentiated Barren Lands

   The following codes were considered undevelopable, because they were already developed or cannot be developed due to some physical constraint:

   1000 – Urban or Built up Land, all uses except 1700
   5000 – Water, All Cover
   6000 – Wetlands, All Cover
   7000 – Barren Land, all uses except 7300 and 7600

   DVRPC codes
   10000 – Agriculture
   10009 – Parking – Agriculture
   10010 – Agricultural Bog
   11000 – Mining
   10009 – Parking – Mining
   12000 – Wooded
   12010 – Vacant

[1] Please refer to the following memoranda for a detailed description of the methodology that forms the basis for the Inside Pinelands allocation – "*Population and Housing Apportionment Methodology*", June 15, 2004; "*Analysis of DVRPC Land Use/Land Cover Data to Calculate Vacant Developable Land*", June 15, 2004

6. The unified wetlands buffer coverage was then merged with the LULC coverage, and polygon areas were recalculated. As a result, all polygons in the LULC were assigned a number that indicated whether the polygon was inside or outside a 200-foot buffer.

7. Public land, wetlands, and lands within the wetlands buffer were excluded from the estimate of vacant developable land.

Housing Apportionment

8. The vacant developable land for each RGA, Town and select Village[2] within each County was calculated in a Microsoft Excel acreage table. The vacant developable acreage was divided by the total vacant developable acreage for each County to obtain the allocation percentage - the percentage of the total vacant developable land within the respective RGA, Town or select Village.

9. The allocation percentage for each RGA, Town and select Village was multiplied by the projected number of Housing Units for each county, calculated in accordance with the Inside/Outside allocation methodology. The result is the number of projected housing units that will have to be built in order to accommodate 2020 future housing need for the projected population for each RGA, Town and Village ***prior*** *to allowance for constraints and/or adjustments that may be deemed necessary to reflect local conditions*

[2] Only those Villages within planned or existing sewer service areas were included in this analysis. Source: NJDEP Cross Acceptance Layers - Sewer Service Status

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APPENDIX 10

Assignment Adjustment Calculations

MEMORANDUM

To: **Members of the Housing Task Force**

From: David M. Kutner, Director of Special Programs

Subject: Assignment Adjustments Calculations

Date: March 10, 2005

During the February 17th meeting, the Housing Task Force members accepted a series of Assignment Adjustments Methodologies. Staff was then directed to develop data reflecting the application of these methodologies and distribute this data prior to the next Task Force meeting. This memo presents the base local-level housing assignment data and the results of the application of the adjustment methodologies.

At the beginning of the Housing Allocation Project, the Task Force approved an initial inside/outside allocation methodology that yielded the County-level housing assignments shown in the following chart. These allocations represent the starting point for the subsequent calculation of housing assignments within each County.

TABLE A

Projected Housing Units With Wetlands Buffer (200ft Inside/50ft Outside)
DVRPC Iteration, 2nd Run DEP LULC and Villages with Sewer Service

County	Projected Net Pop Change	PPH 2000	Projected Households	Inside Alloccation	Projected Hshlds/Units IN	Projected Hshlds/Units OUT
Atlantic	58,900	2.59	22,740	65%	14,780	7,960
Burlington	82,310	2.65	31,060	13%	4,040	27,020
Camden	41,570	2.68	15,510	27%	4,190	11,320
Cape May	5,170	2.36	2,190	25%	550	1,640
Cumberland	12,760	2.73	4,670	0%	0	4,670
Gloucester	54,830	2.75	19,940	7%	1,400	18,540
Ocean	166,080	2.51	66,170	19%	12,570	53,600
TOTAL	**421,620**		**162,280**		**37,530**	**124,750**

During the February meeting, the Task Force concluded that analysis would be conducted for the following 9 assignment adjustment factors:

1. Wetlands/Wetlands Buffers
2. Threatened/Endangered Species
3. Land Suitability for Residential Use
4. Land for Business Development
5. Access to transit
6. Proximity to Employment Centers
7. Existing Development Pattern
8. Water Quality Relating to Waste-Water Generation
9. Credit for Units Approved or Constructed as of 12/31/04

The first step in evaluating the assignment adjustment factors was to calculate the vacant land within each of the RGAs, Towns and Villages in each of the 7 Pinelands Counties. **Table B** entitled "*Base-line Data*" lists the total area within each of these communities and the amount of this area that is vacant (prior to performing any adjustments).

Following is a review of the methodologies for each of the selected adjustment factors and the related Regional Growth Area, Town and Village assignments, where applicable.

ADJUSTMENT METHODOLOGY

1 Wetlands/Wetlands Buffers

Methodology

1. Wetlands buffer data was collected for development applications in all towns, villages and regional growth areas within the study area
2. Data was collected for all applications for which local approvals (e.g., building permits, preliminary or final subdivision approvals) were issued and allowed to take effect by the Commission from 1/1/1990 to 12/31/2004
3. Applications with wetlands buffer waivers was deleted from the data
4. Data was separated into two categories - sewered and non-sewered (septic) developments
5. Only residential development application data was considered
6. Wetlands buffer information was collected for the most recent application phase for single family-detached, single-lot applications; wetlands buffer information was collected for *all* phases for multiple-lot, multi-phase projects
7. Data was grouped based on unit count - 3 groups was created: 1 unit, 2-25 units, 26 or more units
8. For non-sewer areas, the minimum wetlands buffer was used; in areas served by sewer, the average wetlands buffer was calculated ((minimum buffer + maximum buffer)/2)
9. The resulting variable wetlands buffers were deducted from the vacant developable land figures for all regional growth areas, towns and villages, as applicable

Rules - the following rules were applied as the calculations were performed:

1. Where the number of applications was less than 3, the number of units is equal to or less than 10, and the number of vacant developable acres in the subject growth area is more than 50, the wetlands buffer data was deemed to be an insufficient indicator and a 200-foot wetlands buffer was used for sewered areas and a 300-foot buffer (the mandatory septic system buffer) for non sewered areas
2. Where the number of applications was less than 3 but the number of vacant developable acres in the subject growth area was equal to or less than 50, the wetlands buffer data was deemed to be illustrative and the weighted average wetlands buffer figure for units was used
3. Communities were divided into three groups:
   Group a - those that have sewer service or are expected to have sewer service in the future;
   Group b - those that are not expected to ever have sewer service;
   Group c - those that have a combination of sewered and non sewered areas.

   For group a, the data for sewered areas was used. In group b, the data for non-sewered areas was used. For communities in group c, all data was combined.
4. When the majority of vacant developable acres in a municipality was contained in an already subdivided area with small lots, the average weighted buffer for single unit applications was used instead of the overall weighted average for all projects in that municipality.
5. In the final step, all data was rounded to the nearest 25-foot increment. When the average weighted buffer was within 25 feet ± of 200, it was rounded to 200 feet.

Appendix 1 includes a table entitled *Applied Buffers for all RGAs, Towns and Villages* that provides the calculated average weighted buffer based upon the number of units and the applied buffer rounded to the nearest 25-foot increment.

2 Threatened/Endangered Species

1. The NJDEP Landscape Program Map of forest areas was clipped to the Pinelands Management Area
2. Landscape Forest Areas 3, 4 and 5[1] were identified
3. Boundaries of vacant developable lands for each of the regional growth areas, towns and villages were superimposed over the Landscape Program Map
4. All areas exceeding 100 acres that are connected to Pinelands Preservation Areas, Forest Areas or public lands - if the connector exceeds 300 feet in width - were deleted from the vacant developable lands figure.

Appendix 2 includes a table entitled *Landscape Data for all RGAs, Towns and Villages* detailing areas within the RGAs, Towns and Villages that meet these criteria.

3. Land Suitability for Residential Use

1. Compatible Land Use Zones (CLUZ) for airports
   a. CLUZ boundaries[2] for FAATEC, Lakehurst and McGuire were superimposed over boundaries of the vacant developable lands in each regional growth area, town and village
   b. GIS was used to determine the land area within the overlap
   c. If an overlap resulted, the area of the overlap was deleted from the total vacant developable land area calculation
2. Land Previously Discounted
   a. Land deemed unsuitable for residential development during the original Pinelands certification process (15 municipalities) was evaluated
   b. Lands were added back into the amount of vacant developable lands where municipalities have since requested that these areas be developed for residential uses
   c. Large areas (exceeding 100 acres) that were previously discounted were re-evaluated to determine if all or any were still unsuitable for residential development. Lands farther than 500' from a major road and adjacent to residential development were added back into the vacant developable land area.

According to the information provided by the regional airport operators, to a large extent CLUZ zone boundaries did not overlap those of any of the growth areas. The Table in **Appendix 3** entitled *CLUZ and Lands Previously Discounted* details the minor adjustments that were made for CLUZ. In addition, this table lists all areas that were revised in response to lands previously discounted.

4 Land for Business Development

To capture the differences between municipalities relating to their commercial and industrial tax base, an index was constructed using the Department of Community Affairs' Assessment Class Proportions in Municipal Tax Revenues database. This data measures the proportion of a municipality's tax base using 6

[1] According to DEP criteria, forest areas are ranked according to the conservation status of the species present. Forest areas with a ranking of 3 (presence of state threatened species), 4 ((presence of state endangered species), and 5 (presence of federally listed species)

[2] For the purpose of this analysis airports noise contours (65 db) were be used

different land use categories: vacant land, residential, agricultural, commercial, industrial, and apartments. Using this data, an assessment index was developed based on the following two assumptions:

- That residential and apartment categories draw more resources from the municipal budget than they return in tax revenues; and
- That commercial and industrial land uses generally contribute more in taxes than they demand in services and thus serve to increase municipal fiscal health

The assessment index was constructed for each of the Pinelands Regional Growth Areas and Towns using the following steps:

1. The percentage of commercial and industrial land uses was added together to arrive at an index that captures the commercial/industrial ratable base for each area. For example, a town with 12% of its assessment value from the commercial category and 3% of its assessment value from the industrial category would have an assessment index of 15%.
2. This index was computed for Southern New Jersey (defined as the 8 southernmost counties in the state: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean, and Salem). With 15.4% assessment value in commercial and 2.1% assessment value in industrial, the index for Southern New Jersey calculates to 17.5%.
3. Each RGA/Town/Village was then compared to the South Jersey average.
4. For any RGA/Town/Village that fell below the South Jersey average, the amount of vacant developable acres used in the housing allotment was adjusted downward accordingly. For example, an RGA with an assessment index of 15% would get a 2.5% decrease (17.5%-15%) in its vacant developable acres.
5. Any areas that exceeded the South Jersey average received no adjustment in its vacant developable acres.
6. Once all the downward adjustments were made to vacant developable acres within a county the percentage of vacant developable acres was recalculated for each area and the housing allotments were reapportioned in the same manner as in the initial housing assignments.

The table in **Appendix 4** entitled *Assessment Class Proportion Model* details the results of the application of this methodology, which reallocates housing units to areas that have higher developable acreages as well as stronger commercial and industrial bases.

5 Access to transit

This analysis adjusts assignments for growth areas that have immediate access to transit facilities using an index of the relative strength of an area to support different ranges of mass transit, developed New Jersey Transportation Planning Authority. This analysis used transit scores for the Year 2020 for each of the regional growth areas, towns and villages in the study area. These transit scores place each area into one of five categories (see the table that follows) based on three criteria: household and population densities, number of zero and one car households, and employment density. While some of these factors have already been considered in conjunction with the calculations of adjustments, there was sufficient variations in this data to warrant reallocations for those communities within the Pinelands that have higher transit scores.

The range of NJTPA's transit scores are listed in the following table:

Category	Transit Score Range	% of NJ Population in 2020
Low	0 - .50	15%
Marginal	.51 – 1.0	9%
Medium	1.0 – 3.0	30%
Medium-High	3.0 – 9.0	28%
High	> 9.0	18%

In the "Low" and "Marginal" ranges, the potential for mass transit to become a viable option is extremely remote. As a result, no adjustments will be made to areas that fall in these classes. Only 7 growth areas in the study area had scores in the "Medium" category. The highest score in the Pinelands Area only reached 2.18. Based on these factors, the following formula is proposed.

% Increase in Housing Allocation= (Transit Score-1.0)/14.4

This formula accounts for two factors: first, only areas above a transit score of 1.0 will be eligible for allocation increases (thus, ***Transit Score – 1.0)***. Second, the percentage of the reallocation increase is weighted by the average high transit score for South Jersey communities, 14.4. Using this approach, the formula accounts for the relatively low scores for areas throughout the Pinelands. The intent of the formula is to only assign increases to those areas that have an actual potential to sustain mass transit. Consequently, an area with a transit score of 2.75 (the upper range of the medium category) will receive a 7% increase in its housing allotment. By contrast, an area with a score of 1.25 (the lower range of the medium category) will receive only a 1% allotment increase.

It is important to note that all reallocations within a county must sum to zero. Therefore, once upward adjustments were made to the housing assignments for regional growth areas, towns and villages within each county, downward revisions were calculated for those areas with lower transit scores. These downward revisions were based on the relative developable acreage for an area in combination with its transit score. As with the upward adjustments, these shifts were very modest since the bulk of the transit scores for the Pinelands region are very low and there is little variation within each county.

The table in **Appendix 5** entitled *Transit Score Model* reveals that this methodology resulted in a minor shift of housing toward areas more favorable to mass transit.

6. Proximity to Employment Centers

This analysis adjusts assignments based on geographic proximity to employment centers among the various Pinelands RGAs/towns included in the housing assignment analysis. To perform this evaluation, 30-mile buffers were drawn around the center point of each RGA/town. The US Census Bureau's 2000 Journey to Work data was used to measure the employment centers within these buffers[3]. Once this step was completed, housing assignments were adjusted (when warranted) based on intra-county comparisons.

The following two data sets were collected for all the municipalities in New Jersey and for the easternmost counties of Pennsylvania (Bucks, Montgomery, Delaware, Chester, & Philadelphia):

- The number of jobs located within the municipality, and;
- The number of residents in the municipality who are in the regional workforce

The methodology for calculating the proximity to job centers adjustments is outlined below:

1. A jobs index was created for each RGA/Town/Village by applying a gravity distance model to the 30-mile buffer for each area. Gravity distance models give greater weight to a variable according to the distance from a given point. Typically these models are exponential, so that the relative weight drops at a greater rate as distance increases.
2. The 30-mile buffer was drawn in 5-mile increments. In each successive ring, the gravity model discounts the employment centers by an exponential factor of 2 (i.e. $1/d^2$). The following table illustrates the results when these relative weights by distance are applied:

[3] An employment center is defined as any municipality that provides more jobs to the regional economy than it provides job seekers. For example, Philadelphia provides 660,050 jobs within its boundary while there are 569,761 people who live in Philadelphia who are in the regional workforce. Therefore, Philadelphia has a positive job to resident's balance of 90,829 jobs. A minor employment center such as Hammonton has much smaller numbers (6,838 jobs to 5,571 job-seekers, for a positive jobs to residents balance of 1,267)

DISTANCE	RING #	DISCOUNT FACTOR (RING # SQUARED)	TOTAL WEIGHT FOR RING
0 - 5 miles	1	1	67.1%
6 - 10 miles	2	4	16.8%
11 - 15 miles	3	9	7.5%
16 - 20 miles	4	16	4.2%
21 - 25 miles	5	25	2.7%
26 - 30 miles	6	36	1.9%

3. In addition to accounting for distance, this model also accounts for the relative strength of the employment centers.
4. Once an index was established for each RGA/Town/Village, these numbers were then compared on an intra-county basis. Any areas that fell below the county average were eligible for a downward adjustment in their vacant developable acres. For example, if Town X was 4% below the average employment index for the county then its vacant developable acres were adjusted downward by 4%.
5. No adjustments were made to vacant developable acres for areas that exceeded the county average.
6. Once all the downward adjustments were made to vacant developable acres within a county, the percentage of vacant developable acres was recalculated for each area and the housing allotments were reapportioned in the same manner as in the initial assignments.

The table in **Appendix 6** entitled *Proximity to Employment Centers Model* reveals that application of this methodology results in a reallocation of units to areas that have higher available developable acreages and are closer to the various regional employment centers.

7. Existing Development Pattern

1. All pre-Pinelands subdivision approvals that have not been fully developed were identified
2. In those cases where an existing subdivision in multiple ownership constituted more than a significant percentage of the vacant, developable land (more than 30%), an adjustment may be made if the land tenure was inconsistent with the ultimate assignment. (e.g., an adjustment might be needed for a 700-acre growth area encompassing a 500-acre subdivision that was previously approved for 1/3 acre lots with a total of 1,500 potential lots if the allocation is for 1,400 units).

The table in **Appendix 7** entitled *Pinelands Towns, Villages and RGAs Potentially Impacted by Subdivision Areas* identifies those municipalities that meet the conditions outlined in the methodology. The assignment for these two will be addressed after the overall housing assignments are calculated and the amount of the current vacant land is determined. If an adjustment is not possible at that point, a County-level adjustment will be considered.

8. Water Quality Relating to Waste-Water Generation

1. Current water quality for all sub-basins within growth areas was assessed.
2. Any basin exhibiting minimally disturbed Pinelands water quality (e.g., a pH value under 5.0 and specific conductance between 30-80 $\mu S\ cm^{-1}$)[4], was examined to determine if it was connected to adjacent protected areas (in which case, deletion from vacant land might be indicated).

[4] Zampella et al., 2003

3. It was concluded that Best Management Practices should be applied where a subject basin was not adjacent to protected areas.

Appendix 8 includes a memo detailing the conclusions from and results of the application of this methodology. In no case is a deletion from vacant land justified, in 4 cases BMPs for new development are recommended (desireable in all sub-basins, but needed specifically in these 4). In 9 cases, the amount of *existing* development also suggests that retrofits would be useful.

9. Credit for Units Approved or Constructed as of 12/31/04

1. Data for all development applications for which local approvals (e.g., building permits, preliminary or final subdivision approvals) were issued and allowed to take effect by the Commission from 1/1/2000 to 12/31/2004 was collected
2. Approved, constructed and/or committed units were deducted from the housing assignments for all regional growth areas, towns and villages, as applicable

The following step will be taken in order to develop the final local-level density calculations:

3. Land relating to development applications for which local approvals were issued and allowed to take effect by the Commission from 1/1/2000 to 12/31/2004 will be deducted from the final vacant developable land figures for all regional growth areas, towns and villages, as applicable

A summary table in **Appendix 9** entitled *Units Approved or Constructed from 2000 to 2004* details the results of the application of this methodology. It is important to note that the data for this adjustment was assembled from the Pinelands Commission's permit tracking system records. These figures can be updated by any of the Counties or municipalities within the study area if warranted.

COMPOSITE ANALYSIS

The following sequence of calculations was used to determine how the variables described above affect the housing assignments for the individual RGAs, Towns and Villages within the Pinelands:

GIS Adjustment: The first step in the local assignment process was to evaluate those factors that affected the vacant developable land area in each of the RGAs, Towns and Villages. These variables included the wetlands and wetlands buffers (Adjustment #1), lands that should be preserved for habitat (Adjustment #2 and lands that were considered unsuitable for development for the original Pinelands certification process (Adjustment #3). This adjustment was undertaken following the steps outlined below:

1. To account for overlap, the GIS generated polygons for wetlands and wetlands buffers, Landscape data, and lands previously discounted because they are unsuited to development were laid on top of each other.
2. The area of the resulting combined polygons was subtracted from the total vacant area within the RGAs, Towns and Villages to determine the total vacant developable land within each community
3. A table was generated that expressed the vacant developable land in each community as a percentage of the total vacant developable area for each of the Counties within the Pinelands. This figure serves as that community's proportionate share of the total housing assignment.
4. The community's proportionate share was multiplied by the total County housing share (inside allocation) (*See "Projected Housing Units (DRAFT) With Wetlands Buffer (200ft Inside/50ft Outside) DVRPC Iteration, 2nd Run DEP LULC and Villages with Sewer Service" table on page 1 of this memo*)
5. The result of this calculation is the initial local-level housing assignment (see the table presented in **Appendix 10**, entitled *Local Assignment GIS Adjustment)*.

Economic Opportunities/Constraints Adjustment: Using the results of the GIS adjustment, the next step was to evaluate the combined affects of the economic variables, the Assessment Class Proportion (Adjustment #4), Access to Transit (Adjustment #5) and Proximity to Employment Centers (Adjustment #6). This analysis was undertaken following the steps outlined below:

1. A correlation analysis was conducted to ensure that double counting would not occur if all of the economic variables were combined. The conclusion from this analysis was that there is little correlation among these variables.
2. The results of the calculations for each of the economic variables were assembled to form a table, and the values for each municipality were merely added together to arrive at a combined overall adjustment for each RGA, Town and Village. The table, entitled *Summary of Adjustment*, is included in **Appendix 10.**[5]
3. The composite adjustments were then factored (added or subtracted as required) into the initial local-level housing assignment (see the tabled presented in **Appendix 10**, entitled *Housing Assignment – Economic Adjustment*.)

The final step of the assignment process was to credit each of the growth areas for units that have either been constructed or are obligated for construction between 2000 and 2004. The final table in **Appendix 11** entitled *Composite Adjustment Reflecting Units Approved from 2000 to 2004* represents the net effect of all adjustments made to date.

NEXT STEPS

In order to conclude this project, once the review of the adjustments calculations has been completed, it will be necessary for the Housing Task Force to:

- Consider adjustments that may be needed for Land Tenure, described in Adjustment #7, above
- Decide how to address the issue of Reserve Capacity and PDC Adjustments
- Reach a final decision regarding the need to adjust assignments to account for COAH obligations

It is also important to note that when (if) the Office of Smart Growth releases revised population projections, it will be necessary to adjust all of the data accordingly.

[5] The economic analysis data tables provided no data for Cape May and Gloucester Counties. This is because only one community in each of these counties (Woodbine in Cape May and Monroe in Gloucester) is eligible for a housing assignment. As a consequence, assignment revisions were deemed irrelevant since any adjustment that may have occurred as a result of the application of these variables could not be shifted to another Pinelands development area within that county.

APPENDIX 1

Table:

APPLIED BUFFERS FOR ALL RGAS, TOWNS AND VILLAGES

Applied Buffers
For All RGAs, Towns and Villages

Management Area Name	Area	County	Weighted Avg. - Units **Sewer**	Weighted Avg. - Units **Septic**	**Applied Buffer** (feet)	**Buffer Area** (acres)
Egg Harbor Twp	RGA	Atlantic	209		200	1053
Galloway	RGA	Atlantic	190		200	333
Hamilton	RGA	Atlantic	235		225	1445
Buena Borough	Town	Atlantic	insuf.		200	32
Buena Vista	Town	Atlantic	insuf.		200	21
Egg Harbor City	Town	Atlantic	214		200	302
S. Egg Harbor (Galloway)	Town	Atlantic	213		200	490
Hammonton	Town	Atlantic	insuf.		200	331
Hammonton (Mullica)	Town	Atlantic	128		125	0
Cologne-Germania (Galloway)	Village	Atlantic	insuf.		200	25
Pomona (Galloway)	Village	Atlantic	insuf.		200	0
Evesham	RGA	Burlington	169		175	120
Medford Lakes	RGA	Burlington	136		150	9
Medford	RGA	Burlington	143		150	772
Pemberton Twp	RGA	Burlington	124		125	717
Shamong	RGA	Burlington		202	200	100
Southampton	RGA	Burlington		151	150	132
Tabernacle	RGA	Burlington		197	200	230
New Lisbon (Pemberton Twp)	Village	Burlington	insuf.		200	7
Berlin Boro	RGA	Camden	insuf.		200	0
Berlin Twp	RGA	Camden	insuf.		200	13
Chesilhurst	RGA	Camden	insuf.		200	40
Waterford	RGA	Camden	189		200	252
Winslow	RGA	Camden	170		175	517
Blue Anchor (Winslow)	Village	Camden	250		250	29
Tansboro (Winslow)	Village	Camden	250		250	74
Waterford Works (Waterford)	Village	Camden	240		250	20
Waterford Works (Winslow)	Village	Camden	250		250	2
Woodbine	Town	Cape May		insuf.	300	599
Monroe	RGA	Gloucester	201		200	455
Barnegat	RGA	Ocean	270		275	336
Beachwood	RGA	Ocean	insuf.		200	101
Berkeley	RGA	Ocean	insuf.		200	10
Dover	RGA	Ocean	insuf.		200	3
Jackson	RGA	Ocean	insuf.		200	416
Manchester	RGA	Ocean	insuf.		200	168
S Toms River	RGA	Ocean	insuf.		200	4
Stafford	RGA	Ocean	263		275	167
Lakehurst	Town	Ocean	93		100	23
Whiting (Manchester)	Town	Ocean	insuf.		200	321
Cassville (Jackson)	Village	Ocean		222	225	60
Vanhiseville (Jackson)	Village	Ocean		250	250	57
Total						**9786**

insf. - the number of development applications was insuffient to calculate an applied buffer, the septic (300 ft) or sewer (200 ft) buffer default was applied - see Rules for calculating Wetlands/Wetlands Buffer Adjustment Methodology

APPENDIX 2

Table:
LANDSCAPE DATA FOR ALL RGAS, TOWNS AND VILLAGES

Landscape Data
RGAs, Towns and Villages

Management Area Name	County	Management Area	Total Area (acres)	Vacant Area (acres)	Landscape (acres)
Egg Harbor Twp	Atlantic	RGA	13,333	8,141	769
Galloway	Atlantic	RGA	3,355	2,285	172
Hamilton	Atlantic	RGA	9,060	4,862	1,830
Buena Borough	Atlantic	Town	498	254	0
Buena Vista	Atlantic	Town	293	145	0
Egg Harbor City	Atlantic	Town	2,155	844	443
S. Egg Harbor City (Galloway)	Atlantic	Town	2,397	1,308	248
Hammonton	Atlantic	Town	6,964	3,761	307
Hammonton (Mullica)	Atlantic	Town	274	204	0
Cologne-Germania (Galloway)	Atlantic	Village	517	335	0
Pomona (Galloway)	Atlantic	Village	402	199	0
Subtotal			**39,249**	**22,337**	**3,769**
Evesham	Burlington	RGA	667	193	0
Medford Lakes	Burlington	RGA	734	16	0
Medford	Burlington	RGA	8,499	2,222	295
Pemberton Twp	Burlington	RGA	6,803	1,978	551
Shamong	Burlington	RGA	1,384	397	0
Southampton	Burlington	RGA	1,009	439	254
Tabernacle	Burlington	RGA	2,718	916	0
New Lisbon (Pemberton Twp)	Burlington	Village	97	21	0
Subtotal			**21,911**	**6,181**	**1,099**
Berlin Boro	Camden	RGA	227	144	0
Berlin Twp	Camden	RGA	162	47	0
Chesilhurst	Camden	RGA	1,105	544	0
Waterford	Camden	RGA	2,697	821	0
Winslow	Camden	RGA	6,525	3,777	0
Waterford Works (Waterford)	Camden	Village	210	119	0
Blue Anchor (Winslow)	Camden	Village	652	426	0
Tansboro (Winslow)	Camden	Village	240	140	0
Waterford Works (Winslow)	Camden	Village	286	121	0
Subtotal			**12,106**	**6,139**	**0**
Woodbine	Cape May	Town	4,255	2,959	1,799
Subtotal			**4,255**	**2,959**	**1,799**
Monroe	Gloucester	RGA	5,875	2,820	408
Subtotal			**5,875**	**2,820**	**408**
Barnegat	Ocean	RGA	3,292	2,726	514
Beachwood	Ocean	RGA	496	314	256
Berkeley	Ocean	RGA	197	180	158
Dover	Ocean	RGA	16	4	0
Jackson	Ocean	RGA	2,282	1,710	672
Manchester	Ocean	RGA	1,860	1,337	206
S Toms River	Ocean	RGA	378	47	0
Stafford	Ocean	RGA	3,002	1,619	163
Lakehurst	Ocean	Town	524	85	0
Whiting (Manchester)	Ocean	Town	4,404	1,868	588
Cassville (Jackson)	Ocean	Village	369	254	127
Vanhiseville (Jackson)	Ocean	Village	430	204	97
Subtotal			**17,251**	**10,348**	**2,779**
Total			**100,646**	**50,785**	**9,853**

Table:
CLUZ and Lands Previously Discounted

CLUZ and Lands Previously Discounted
RGAs, Towns and Villages

Management Area Name	County	Management Area	Total Area (acres)	Vacant Area (acres)	Previously Discounted (acres)	CLUZ Zones (acres)
Egg Harbor Twp	Atlantic	RGA	13,333	8,141	372	49
Galloway	Atlantic	RGA	3,355	2,285	297	68
Hamilton	Atlantic	RGA	9,060	4,862	970	0
Buena Borough	Atlantic	Town	498	254	0	0
Buena Vista	Atlantic	Town	293	145	0	0
Egg Harbor City	Atlantic	Town	2,155	844	0	0
S. Egg Harbor City (Galloway)	Atlantic	Town	2,397	1,308	0	0
Hammonton	Atlantic	Town	6,964	3,761	0	0
Hammonton (Mullica)	Atlantic	Town	274	204	0	0
Cologne-Germania (Galloway)	Atlantic	Village	517	335	0	0
Pomona (Galloway)	Atlantic	Village	402	199	0	59
Subtotal			**39,249**	**22,337**	**1,639**	**176**
Evesham	Burlington	RGA	667	193	0	0
Medford Lakes	Burlington	RGA	734	16	0	0
Medford	Burlington	RGA	8,499	2,222	375	0
Pemberton Twp	Burlington	RGA	6,803	1,978	0	0
Shamong	Burlington	RGA	1,384	397	0	0
Southampton	Burlington	RGA	1,009	439	0	0
Tabernacle	Burlington	RGA	2,718	916	0	0
New Lisbon (Pemberton Twp)	Burlington	Village	97	21	0	0
Subtotal			**21,911**	**6,181**	**375**	**0**
Berlin Boro	Camden	RGA	227	144	76	0
Berlin Twp	Camden	RGA	162	47	46	0
Chesilhurst	Camden	RGA	1,105	544	0	0
Waterford	Camden	RGA	2,697	821	68	0
Winslow	Camden	RGA	6,525	3,777	530	0
Waterford Works (Waterford)	Camden	Village	210	119	0	0
Blue Anchor (Winslow)	Camden	Village	652	426	0	0
Tansboro (Winslow)	Camden	Village	240	140	0	0
Waterford Works (Winslow)	Camden	Village	286	121	0	0
Subtotal			**12,106**	**6,139**	**721**	**0**
Woodbine	Cape May	Town	4,255	2,959	0	0
Subtotal			**4,255**	**2,959**	**0**	**0**
Monroe	Gloucester	RGA	5,875	2,820	0	0
Subtotal			**5,875**	**2,820**	**0**	**0**
Barnegat	Ocean	RGA	3,292	2,726	0	0
Beachwood	Ocean	RGA	496	314	12	0
Berkeley	Ocean	RGA	197	180	0	0
Dover	Ocean	RGA	16	4	2	0
Jackson	Ocean	RGA	2,282	1,710	204	0
Manchester	Ocean	RGA	1,860	1,337	93	0
S Toms River	Ocean	RGA	378	47	0	0
Stafford	Ocean	RGA	3,002	1,619	382	0
Lakehurst	Ocean	Town	524	85	0	0
Whiting (Manchester)	Ocean	Town	4,404	1,868	13	0
Cassville (Jackson)	Ocean	Village	369	254	0	0
Vanhiseville (Jackson)	Ocean	Village	430	204	0	0
Subtotal			**17,251**	**10,348**	**706**	**0**
Total			**100,646**	**50,785**	**3,441**	**176**

APPENDIX 4

Table:

Assessment Class Proportion Model

Assessment Class Proportion Model

Management Area Name	County	***Index***	Index Minus SJ Average	Vacant Devel Acres	% of Vacant Devel Acres	Units Allocated	Adjusted Vacant Devel Acres	Adjusted % of Vacant Devel Acres	Adjusted Units Allocated	Actual Change	% Change
Hammonton (Mullica)	Atlantic	6.1%	-11.4%	204	1.4%	207	181	1.3%	185	-22	-10.6%
Buena Vista	Atlantic	7.9%	-9.6%	124	0.9%	126	112	0.8%	115	-11	-8.7%
Galloway	Atlantic	13.5%	-4.0%	1,670	11.5%	1,695	1,604	11.1%	1,645	-50	-2.9%
S. Egg Harbor (Galloway)	Atlantic	13.5%	-4.0%	706	4.8%	717	678	4.7%	696	-21	-2.9%
Cologne-Germania (Galloway)	Atlantic	13.5%	-4.0%	309	2.1%	314	297	2.1%	304	-10	-3.2%
Pomona (Galloway)	Atlantic	13.5%	-4.0%	140	1.0%	142	134	0.9%	138	-4	-2.8%
Buena	Atlantic	15.0%	-2.5%	221	1.5%	224	216	1.5%	221	-3	-1.3%
Hammonton	Atlantic	19.8%	2.3%	3,137	21.5%	3,184	3,137	21.8%	3,218	34	1.1%
Egg Harbor Twp	Atlantic	21.6%	4.1%	6,027	41.4%	6,118	6,027	41.8%	6,184	66	1.1%
Egg Harbor City	Atlantic	23.0%	5.5%	239	1.6%	243	239	1.7%	245	2	0.8%
Hamilton	Atlantic	31.9%	14.4%	1,783	12.2%	1,810	1,783	12.4%	1,829	19	1.0%
				14,560		**14,780**	**14,408**		**14,780**	**0**	

Management Area Name	County	***Index***	Index Minus SJ Average	Vacant Devel Acres	% of Vacant Devel Acres	Units Allocated	Adjusted Vacant Devel Acres	Adjusted % of Vacant Devel Acres	Adjusted Units Allocated	Actual Change	% Change
Medford Lakes	Burlington	1.5%	-16.0%	7	0.2%	9	6	0.2%	9	0	0.0%
Shamong	Burlington	2.0%	-15.5%	298	9.6%	387	252	9.0%	365	-22	-5.7%
Tabernacle	Burlington	2.4%	-15.1%	685	22.0%	890	582	20.9%	843	-47	-5.3%
Southampton	Burlington	6.2%	-11.3%	112	3.6%	145	99	3.6%	144	-1	-0.7%
Pemberton Twp	Burlington	8.1%	-9.4%	873	28.1%	1,134	791	28.4%	1,146	12	1.1%
New Lisbon (Pemberton Twp)	Burlington	8.1%	-9.4%	14	0.5%	18	13	0.5%	18	0	0.0%
Medford	Burlington	10.2%	-7.3%	1,049	33.7%	1,362	973	34.9%	1,409	47	3.5%
Evesham	Burlington	19.0%	1.5%	73	2.3%	95	73	2.6%	106	11	11.6%
				3,111		**4,040**	**2,788**		**4,040**	**0**	

Management Area Name	County	***Index***	Index Minus SJ Average	Vacant Devel Acres	% of Vacant Devel Acres	Units Allocated	Adjusted Vacant Devel Acres	Adjusted % of Vacant Devel Acres	Adjusted Units Allocated	Actual Change	% Change
Chesilhurst	Camden	5.8%	-11.7%	504	11.0%	460	445	10.6%	444	-16	-3.5%
Waterford	Camden	8.5%	-9.0%	531	11.6%	484	483	11.5%	482	-2	-0.4%
Waterford Works (Waterford)	Camden	8.5%	-9.0%	89	1.9%	81	81	1.9%	81	0	0.0%
Winslow	Camden	9.4%	-8.1%	2,811	61.2%	2,563	2,583	61.4%	2,574	11	0.4%
Blue Anchor (Winslow)	Camden	9.4%	-8.1%	352	7.7%	321	323	7.7%	322	1	0.3%
Tansboro (Winslow)	Camden	9.4%	-8.1%	120	2.6%	109	110	2.6%	110	1	0.9%
Waterford Works (Winslow)	Camden	9.4%	-8.1%	119	2.6%	109	109	2.6%	109	0	0.0%
Berlin Boro	Camden	16.4%	-1.1%	68	1.5%	62	67	1.6%	67	5	8.1%
Berlin Twp	Camden	35.7%	18.2%	1	0.0%	1	1	0.0%	1	0	0.0%
				4,595		**4,190**	**4,203**		**4,190**	**0**	

Management Area Name	County	***Index***	Index Minus SJ Average	Vacant Devel Acres	% of Vacant Devel Acres	Units Allocated	Adjusted Vacant Devel Acres	Adjusted % of Vacant Devel Acres	Adjusted Units Allocated	Actual Change	% Change
Beachwood	Ocean	4.0%	-13.5%	37	0.6%	78	32	0.6%	71	-7	-9.0%
Berkeley	Ocean	5.2%	-12.3%	19	0.3%	40	17	0.3%	37	-3	-7.5%
Barnegat	Ocean	8.3%	-9.2%	1,875	31.6%	3,967	1,702	30.2%	3,794	-173	-4.4%
Stafford	Ocean	11.0%	-6.5%	1,002	16.9%	2,120	937	16.6%	2,089	-31	-1.5%
Jackson	Ocean	11.4%	-6.1%	700	11.8%	1,481	658	11.7%	1,466	-15	-1.0%
Cassville (Jackson)	Ocean	11.4%	-6.1%	127	2.1%	269	119	2.1%	266	-3	-1.1%
Vanhiseville (Jackson)	Ocean	11.4%	-6.1%	85	1.4%	180	80	1.4%	178	-2	-1.1%
S Toms River	Ocean	14.2%	-3.3%	44	0.7%	93	43	0.8%	95	2	2.2%
Manchester	Ocean	20.9%	3.4%	931	15.7%	1,970	931	16.5%	2,075	105	5.3%
Whiting (Manchester)	Ocean	20.9%	3.4%	1,059	17.8%	2,241	1,059	18.8%	2,361	120	5.4%
Lakehurst	Ocean	23.2%	5.7%	62	1.0%	131	62	1.1%	138	7	5.3%
				5,941		**12,570**	**5,639**		**12,570**	**0**	

South Jersey Average = 17.5%

APPENDIX 5

Table:
Transit Score Model

Transit Score Model

Management Area Name	Area	County	Transit Score	Adjustment Factor **	Vacant Devel Acres	% of Vacant Devel Acres	Units Allocated	Adjusted Units Allocated	Actual Change	% Change
Egg Harbor Twp	RGA	Atlantic	0.50		6,027	41.4%	6,118	6,118	0	0.0%
Galloway	RGA	Atlantic	0.39		1,670	11.5%	1,695	1,695	0	0.0%
Buena	Town	Atlantic	0.39		221	1.5%	224	224	0	0.0%
Pomona (Galloway)	Village	Atlantic	0.36		140	1.0%	142	142	0	0.0%
Egg Harbor City	Town	Atlantic	0.33		239	1.6%	243	243	0	0.0%
Hammonton	Town	Atlantic	0.29		3,137	21.5%	3,184	3,184	0	0.0%
Hamilton	RGA	Atlantic	0.15		1,783	12.2%	1,810	1,810	0	0.0%
Buena Vista	Town	Atlantic	0.14		124	0.9%	126	126	0	0.0%
S. Egg Harbor (Galloway)	Town	Atlantic	0.11		706	4.8%	717	717	0	0.0%
Cologne-Germania (Galloway)	Village	Atlantic	0.11		309	2.1%	314	314	0	0.0%
Hammonton (Mullica)	Town	Atlantic	0.08		204	1.4%	207	207	0	0.0%
			0.28		**14,560**		**14,780**	**14,780**	**0**	

Management Area Name	Area	County	Transit Score	Adjustment Factor **	Vacant Devel Acres	% of Vacant Devel Acres	Units Allocated	Adjusted Units Allocated	Actual Change	% Change
Medford Lakes	RGA	Burlington	2.18	8.2%	7	0.2%	9	10	1	11.1%
Evesham	RGA	Burlington	0.85		73	2.3%	95	95	0	0.0%
Medford	RGA	Burlington	0.49		1,049	33.7%	1,362	1,362	0	0.0%
Pemberton Twp	RGA	Burlington	0.46		873	28.1%	1,134	1,134	0	0.0%
New Lisbon (Pemberton Twp)	Village	Burlington	0.37		14	0.5%	18	18	0	0.0%
Southampton	RGA	Burlington	0.16		112	3.6%	145	145	0	0.0%
Shamong	RGA	Burlington	0.09		298	9.6%	387	387	0	0.0%
Tabernacle	RGA	Burlington	0.09		685	22.0%	890	889	-1	-0.1%
			0.59		**3,111**		**4,040**	**4,040**	**0**	

Management Area Name	Area	County	Transit Score	Adjustment Factor **	Vacant Devel Acres	% of Vacant Devel Acres	Units Allocated	Adjusted Units Allocated	Actual Change	% Change
Berlin Twp	RGA	Camden	1.92	6.4%	1	0.0%	1	1	0	0.0%
Berlin Boro	RGA	Camden	1.82	5.7%	68	1.5%	62	66	4	6.5%
Chesilhurst	RGA	Camden	0.57		504	11.0%	460	460	0	0.0%
Tansboro (Winslow)	Village	Camden	0.47		120	2.6%	109	109	0	0.0%
Winslow	RGA	Camden	0.30		2,811	61.2%	2,563	2,563	0	0.0%
Waterford	RGA	Camden	0.30		531	11.6%	484	484	0	0.0%
Waterford Works (Winslow)	Village	Camden	0.25		119	2.6%	109	109	0	0.0%
Blue Anchor (Winslow)	Village	Camden	0.18		352	7.7%	321	318	-3	-0.9%
Waterford Works (Waterford)	Village	Camden	0.03		89	1.9%	81	80	-1	-1.2%
			0.73		**4,595**		**4,190**	**4,190**	**0**	

Management Area Name	Area	County	Transit Score	Adjustment Factor **	Vacant Devel Acres	% of Vacant Devel Acres	Units Allocated	Adjusted Units Allocated	Actual Change	% Change
Lakehurst	Town	Ocean	2.11	7.7%	62	1.0%	131	141	10	7.6%
S. Toms River	RGA	Ocean	2.02	7.1%	44	0.7%	93	100	7	7.5%
Dover	RGA	Ocean	1.40	2.8%	0	0.0%	0	0	0	0.0%
Beachwood	RGA	Ocean	1.20	1.4%	37	0.6%	78	79	1	1.3%
Whiting (Manchester)	Town	Ocean	0.79		1,059	17.8%	2,241	2,241	0	0.0%
Manchester	RGA	Ocean	0.63		931	15.7%	1,970	1,970	0	0.0%
Stafford	RGA	Ocean	0.40		1,002	16.9%	2,120	2,120	0	0.0%
Berkeley	RGA	Ocean	0.23		19	0.3%	40	40	0	0.0%
Jackson	RGA	Ocean	0.14		700	11.8%	1,481	1,477	-4	-0.3%
Barnegat	RGA	Ocean	0.11		1,875	31.6%	3,967	3,955	-12	-0.3%
Cassville (Jackson)	Village	Ocean	0.11		127	2.1%	269	268	-1	-0.4%
Vanhiseville (Jackson)	Village	Ocean	0.11		85	1.4%	180	179	-1	-0.6%
			0.77		**5,941**		**12,570**	**12,570**	**0**	

** **Adjustment factor formula is: (Transit Score-1)/14.4**

Table:
Proximity to Employment Centers Model

Proximity to Employment Centers Model

Management Area Name	Area	County	Jobs Index	% Diff from Avg.	Vacant Devel Acres	Adjusted Vacant Dev Acres	% of Vacant Devel Acres	Adjusted % of Vacant Dev Acres	Units Allocated	Adjusted Units Allocated	Actual Change	% Change
Egg Harbor Twp	RGA	Atlantic	9.201	5.3%	6,027	6,027	41.4%	41.7%	6,118	6,159	41	0.7%
Galloway	RGA	Atlantic	9.070	3.8%	1,670	1,670	11.5%	11.5%	1,695	1,707	12	0.7%
Pomona (Galloway)	Village	Atlantic	9.009	3.1%	140	140	1.0%	1.0%	142	143	1	0.7%
Hammonton	Town	Atlantic	8.777	0.5%	3,137	3,137	21.5%	21.7%	3,184	3,206	22	0.7%
Buena	Town	Atlantic	8.664	-0.8%	221	219	1.5%	1.5%	224	224	0	0.0%
Hammonton (Mullica)	Town	Atlantic	8.554	-2.1%	204	200	1.4%	1.4%	207	204	-3	-1.4%
Buena Vista	Town	Atlantic	8.537	-2.3%	124	121	0.9%	0.8%	126	124	-2	-1.6%
Cologne-Germania (Galloway)	Village	Atlantic	8.531	-2.3%	309	302	2.1%	2.1%	314	308	-6	-1.9%
Hamilton	RGA	Atlantic	8.489	-2.8%	1,783	1,733	12.2%	12.0%	1,810	1,771	-39	-2.2%
S. Egg Harbor (Galloway)	Town	Atlantic	8.465	-3.1%	706	684	4.8%	4.7%	717	699	-18	-2.5%
Egg Harbor City	Town	Atlantic	8.388	-4.0%	239	230	1.6%	1.6%	243	235	-8	-3.3%
	County Average =		**8.735**		**14,560**	**14,462**			**14,780**	**14,780**	**0**	

Management Area Name	Area	County	Jobs Index	% Diff from Avg.	Vacant Devel Acres	Adjusted Vacant Dev Acres	% of Vacant Devel Acres	Adjusted % of Vacant Dev Acres	Units Allocated	Adjusted Units Allocated	Actual Change	% Change
Jackson	RGA	Ocean	9.186	7.7%	700	700	11.8%	12.5%	1,481	1,572	91	6.1%
Cassville (Jackson)	Village	Ocean	9.049	6.1%	127	127	2.1%	2.3%	269	285	16	5.9%
Vanhiseville (Jackson)	Village	Ocean	9.036	6.0%	85	85	1.4%	1.5%	180	191	11	6.1%
Manchester	RGA	Ocean	8.876	4.1%	931	931	15.7%	16.6%	1,970	2,091	121	6.1%
Lakehurst	Town	Ocean	8.776	2.9%	62	62	1.0%	1.1%	131	139	8	6.1%
Berkeley	RGA	Ocean	8.242	-3.4%	19	18	0.3%	0.3%	40	41	1	2.5%
Whiting (Manchester)	Town	Ocean	8.177	-4.1%	1,059	1,015	17.8%	18.1%	2,241	2,280	39	1.7%
S. Toms River	RGA	Ocean	7.937	-6.9%	44	41	0.7%	0.7%	93	92	-1	-1.1%
Beachwood	RGA	Ocean	7.836	-8.1%	37	34	0.6%	0.6%	78	76	-2	-2.6%
Stafford	RGA	Ocean	7.745	-9.2%	1,002	910	16.9%	16.3%	2,120	2,043	-77	-3.6%
Barnegat	RGA	Ocean	7.614	-10.7%	1,875	1,674	31.6%	29.9%	3,967	3,760	-207	-5.2%
	County Average =		**8.558**	**-1.4%**	**5,941**	**5,598**			**12,570**	**12,570**	**0**	

Management Area Name	Area	County	Jobs Index	% Diff from Avg.	Vacant Devel Acres	Adjusted Vacant Dev Acres	% of Vacant Devel Acres	Adjusted % of Vacant Dev Acres	Units Allocated	Adjusted Units Allocated	Actual Change	% Change
Evesham	RGA	Burlington	10.536	7.6%	73	73	2.3%	2.4%	95	97	2	2.0%
Medford	RGA	Burlington	9.875	0.9%	1,049	1,049	33.7%	34.4%	1,362	1,389	27	2.0%
Medford Lakes	RGA	Burlington	9.771	-0.2%	7	7	0.2%	0.2%	9	9	0	1.8%
New Lisbon (Pemberton Twp)	Village	Burlington	9.597	-2.0%	14	14	0.5%	0.4%	18	18	0	-0.1%
Southampton	RGA	Burlington	9.577	-2.2%	112	110	3.6%	3.6%	145	145	0	-0.3%
Pemberton Twp	RGA	Burlington	9.564	-2.3%	873	853	28.1%	27.9%	1,134	1,129	-5	-0.4%
Shamong	RGA	Burlington	9.445	-3.5%	298	287	9.6%	9.4%	387	381	-6	-1.6%
Tabernacle	RGA	Burlington	9.415	-3.8%	685	659	22.0%	21.6%	890	872	-17	-2.0%
	County Average =		**9.791**		**3,111**	**3,051**			**4,040**	**4,040**	**0**	

Management Area Name	Area	County	Jobs Index	% Diff from Avg.	Vacant Devel Acres	Adjusted Vacant Dev Acres	% of Vacant Devel Acres	Adjusted % of Vacant Dev Acres	Units Allocated	Adjusted Units Allocated	Actual Change	% Change
Berlin Twp	RGA	Camden	10.006	4.1%	1	1	0.0%	0.0%	1	1	0	2.0%
Berlin Boro	RGA	Camden	9.973	3.7%	68	68	1.5%	1.5%	62	63	1	2.0%
Tansboro (Winslow)	Village	Camden	9.876	2.7%	120	120	2.6%	2.7%	109	112	2	2.0%
Waterford	RGA	Camden	9.742	1.3%	531	531	11.6%	11.8%	484	494	10	2.0%
Winslow	RGA	Camden	9.430	-1.9%	2,811	2,757	61.2%	61.2%	2,563	2,564	1	0.0%
Chesilhurst	RGA	Camden	9.394	-2.3%	504	492	11.0%	10.9%	460	458	-2	-0.3%
Waterford Works (Waterford)	Village	Camden	9.265	-3.6%	89	86	1.9%	1.9%	81	80	-1	-1.7%
Waterford Works (Winslow)	Village	Camden	9.259	-3.7%	119	115	2.6%	2.5%	109	107	-2	-1.8%
Blue Anchor (Winslow)	Village	Camden	9.140	-4.9%	352	335	7.7%	7.4%	321	311	-10	-3.0%
	County Average =		**9.615**		**4,595**	**4,504**			**4,190**	**4,190**	**0**	

APPENDIX 7

Memo:

Existing Development Patterns Evaluation

Pinelands Towns, Villages and RGAs
Potentially Impacted by Subdivided Areas

#	Municipality	County	Type	Subdivided area in multiple ownership	Portion vacant	Possible Adjustments[1]
1	Barnagat Township	Ocean	RGA	YES	>50%	Yes
2	Beachwood Township	Ocean	RGA	NO		
3	Berkeley Township	Ocean	RGA	NO		
4	Berlin Borough	Camden	RGA	NO		
5	Berlin Township	Camden	RGA	NO		
6	Chesilhurst Borough	Camden	RGA	NO		
7	Dover Township	Ocean	RGA	NO		
8	Egg Harbor Township	Atlantic	RGA	YES	<5%	No
9	Evesham Township	Atlantic	RGA	NO		
10	Galloway Township	Atlantic	RGA	YES	<10%	No
11	Hamilton Township	Atlantic	RGA	NO		
12	Jackson Township	Ocean	RGA	NO		
13	Manchester Township	Ocean	RGA	NO		
14	Medford Township	Burlington	RGA	NO		
15	Medford Lakes Borough	Burlington	RGA	NO		
16	Monroe Township	Gloucester	RGA	YES	<5%	No
17	Pemberton Township	Burlington	RGA	YES	+/-10%	No
18	Shamong Township	Burlington	RGA	NO		
19	Southhampton Township	Burlington	RGA	NO		
20	South Toms River Borough	Ocean	RGA	NO		
21	Stafford Township	Ocean	RGA	YES	<5%	No
22	Tabernacle Township	Burlington	RGA	YES	+/-1%	No
23	Waterford Township	Camden	RGA	NO		
24	Winslow Township	Camden	RGA	NO		
1	Buena	Atlantic	Town	NO		
2	Buena (Buena Vista)	Atlantic	Town	NO		
3	S. Egg Harbor	Atlantic	Town	NO		
4	Egg Harbor City	Atlantic	Town	YES	+/-10%	No
5	Hammonton (Mullica)	Atlantic	Town	NO		
6	Hammonton	Atlantic	Town	NO		
7	Woodbine (Upper)	Cape May	Town	NO		
8	Woodbine	Cape May	Town	NO		
9	Lakehurst	Ocean	Town	YES	+/-5%	No
10	Whiting (Manchester)	Ocean	Town	YES	+/-30%	Yes
1	Cologne-Germania (Galloway)	Atlantic	Village	NO		
2	Pomona (Galloway)	Atlantic	Village	NO		
3	New Lisbon	Burlington	Village	NO		
4	Blue Anchor	Camden	Village	NO		
5	Tansboro	Camden	Village	NO		
6	Waterford	Camden	Village	NO		
7	Waterford Works	Camden	Village	NO		
8	Cassville	Ocean	Village	NO		
9	Vanhiseville	Ocean	Village	NO		

[1] Scale that might affect capacity? If so, calculate after density assignment

Memo:
SUB-BASIN WATER QUALITY EVALUATION

MEMORANDUM

To: Members, Housing Task Force

From: Larry Liggett

Date: April 15, 2005

Subject: Water Quality versus Growth Areas

Three sets of data were examined to determine if there were any undisturbed watersheds either currently impacted or potentially impacted by buildout.

1. **% Disturbed**

Disturbance (development and agriculture) beyond 10% impacts waters sufficiently to change their water quality and begin the loss of characteristic Pinelands aquatic ecosystems. As can be seen from the attached map, only five of the 43 sub-basins containing at least 10% of a growth area are currently less than 10% disturbed. In four of the five cases, the growth area is in the downstream portion of the sub-basin. In all cases, the growth area is only a small portion of the sub-basin. In two cases, the growth area is already mostly developed; in two more, active plans are being implemented to protect the sub-basin (the Toms River Corridor and the Beachwood park); the final case is mostly outside the Pinelands in CAFRA. In all the four Pinelands dominated areas, conservation is zoning in place for the bulk of the basin.

Nineteen sub-basins are between the disturbance threshold of 10% and the tipping point end point of 30%. Nineteen sub-basins are currently disturbed beyond the 30% disturbance level, indicating being "degraded" in terms of Pinelands ecosystems.

Thus, these data suggest that there is no basin among the 43 where a deduction should be made to protect water quality.

2. **DEP Non-attainment Data**

While DEP data is not universally available (only 22 of the 43 sub-basins are monitored), their data (Chart I) show that 18 of the 22 sub-basins have conventional impairments (phosphorus, pH, fecal coliform, or dissolved oxygen). The three sub-basins with less than 10% disturbance that are monitored all show conventional impairment. In addition, of the four sub-basins showing no conventional impact, two show either copper, mercury, or lead impairment (the other two were not measured).

Thus, these data suggest that there is no basin among the 22 where a deduction should be made to protect water quality.

3. **Science office monitoring sites**

The Science staff assembled their point data for the 43 sub-basins and converted it into quality scores (see map). Of 79 points in the 43 sub-basins, 23 show high quality. In 22 of these cases (see Chart II), the

stream flowing through the growth areas does not flow into a sensitive Pinelands area. In 13 of these cases, the point is upstream of the growth area and thus is not evidence of impacts to the high quality from the growth area. In 11 of these cases, the growth area is mostly developed and in 12, the growth area is very small. In almost all of the sub-basin, various measures are either in place or planned to further protect lands and aquatic ecosystems.

Thus, in eight of the eighteen cases no further action is necessary to protect water quality from new impacts. In two more, if current plans are implemented, no further action is needed for future development. In another four, BMPs on future development can provide sufficient protection. Finally, in the final four (and in many of the other cases), only retrofits on existing development would be useful (not the subject of this discussion of future impacts). In no case are there substantial lands that should be precluded from residential assignment.

The next steps on retrofits and BMPs in general were discussed by the Commission's Science Committee at its 3/11/05 meeting. The Committee directed staff to delineate the justifications for several of the most useful BMPs for future development and retrofits for discussion at its upcoming meeting on 4/29/05.

Chart 1

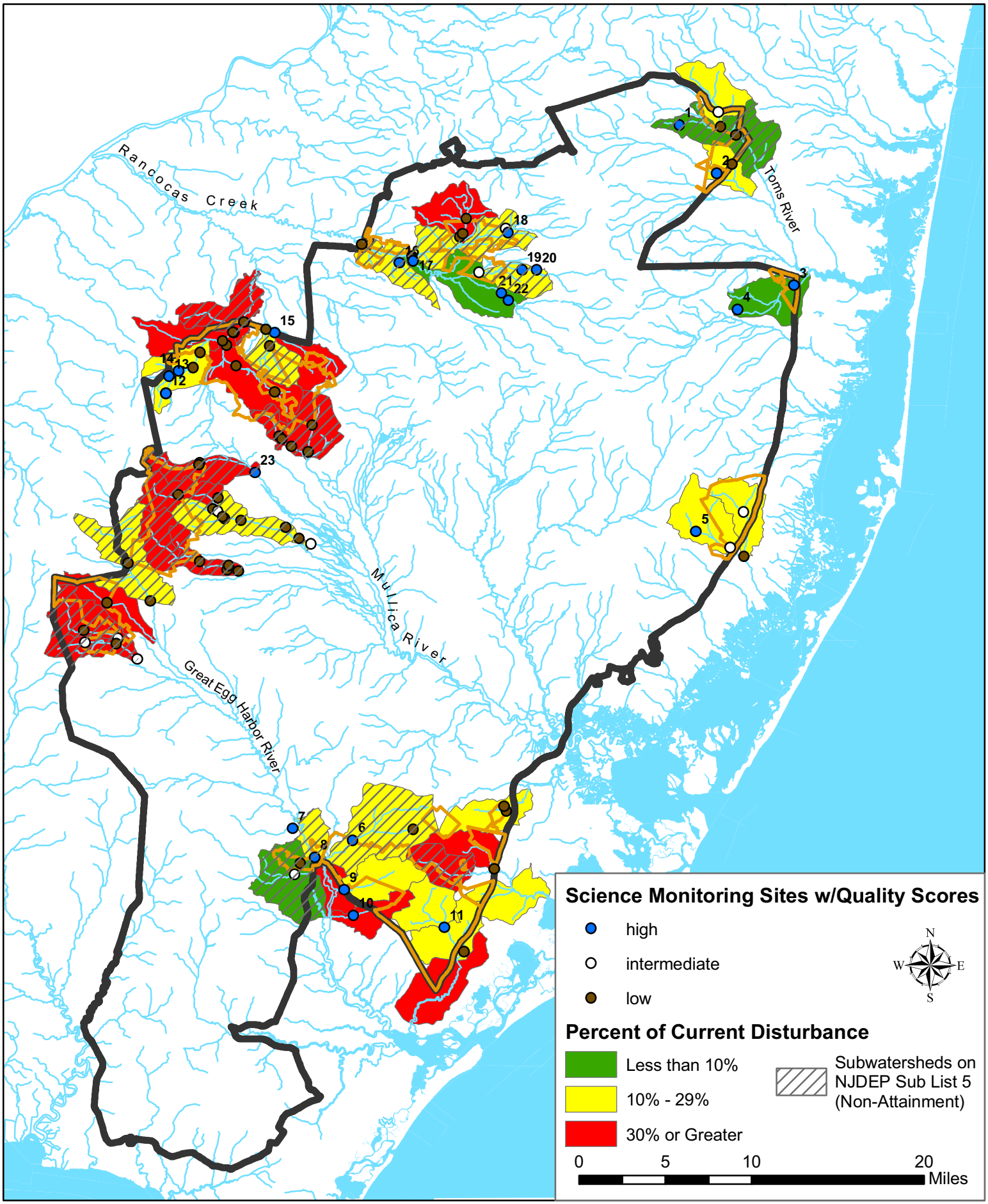
	HUC14	RGA	Pct in RGA	Conventionals Impairment	Conv. Impact?	Other Impairment	Current Disturbance	Future Disturbance	Notes
1	02040202060100	Medford, Evesham	13%	Phosphorus, Fecal Coliform	Impact	?	54%	99%	Stream is N of Route 70
2	02040301150030	Medford, Evesham	25%	pH	Impact	?	52%	78%	Stream S of RGA - Shamong APA
3	02040301160050	Winslow, Atco, Chesilhurst	58%	pH	Impact	?	43%	75%	Mostly RGA
4	02040302040010	Williamstown	41%	FC and pH	Impact	?	42%	74%	half RGA half APA
5	02040301160070	Winslow, Atco, Chesilhurst	85%	pH	Impact	?	30%	74%	Mostly RGA
6	02040301160080	Winslow, Atco, Chesilhurst	38%	pH	Impact	?	40%	69%	Partially in APA
7	02040302040020	Williamstown	29%	pH,	Impact	Aquatic Life	40%	67%	Partially in APA
8	02040302020020	Hamilton, Egg Harbor	25%		**No Impact**	?	41%	62%	Stream in MAFIA
9	02040202020030	Pemberton, Browns Mills	43%		**No Impact**	Copper, Mercury, Lead	26%	51%	Monitored downstream of RGA
10	02040301160020	Winslow, Atco, Chesilhurst	31%	pH, DO	Impact	Copper, Lead, Zinc, Fish-Mercury	30%	50%	N boundary of RGA
11	02040202040010	Pemberton, Browns Mills	25%		**No Impact**	Copper, Lead	26%	44%	stream outside RGA in APA
12	02040202060070	Medford, Evesham	31%	pH	Impact	?	22%	41%	Monitored downstream of RGA
13	02040302030020	Winslow, Atco, Chesilhurst	12%	pH	Impact	Lead and Mercury	20%	36%	Stream far outside RGA
14	02040302030040	Williamstown	14%	pH	Impact	Arsenic, Cadmium, Chronium, Copper, Lead, Mercury	20%	36%	Stream far outside RGA
15	02040302050020	Hamilton, Egg Harbor	27%	pH	Impact	?	20%	33%	Headwaters in RDA
16	02040302040130	Hamilton, Egg Harbor	13%	Fecal Coliform, pH	Impact	Copper, Lead	22%	31%	Stream/HW in FA
17	02040202020040	Pemberton, Browns Mills	17%	Phosphorus, pH, Fecal Coliform	Impact	Mercury	18%	29%	Monitored downstream of RGA
18	02040301160060	Winslow, Atco, Chesilhurst	14%	pH	Impact	?	16%	28%	Stream E of RGA
19	02040202030060	Pemberton, Browns Mills	14%		**No Impact**	?	15%	27%	Headwaters in PAD
20	02040301060070	Jackson, Manchester	15%	Fecal Coliform, pH	Impact	Lead	8%	22%	Estimated
21	02040302050040	Hamilton, Egg Harbor	11%	pH	Impact	?	9%	18%	Stream/HW in FA
22	02040301060060	Jackson, Manchester	21%	Fecal Coliform, pH	Impact	Lead	8%	17%	Estimated

Chart II

RE-EVALUATE DEVELOPMENT-ORIENTED SUB-BASINS
WITH HIGH QUALITY SCIENCE MONITORING SITES IN OR NEARBY

#	Factors which suggest insignificant impact from future Growth				Based upon Columns 2-5, measures should be taken in Growth?	Measures already in place or planned	Additional measures called for
	Growth area does not flow into sensitive Pinelands area	No evidence Growth basin high quality (Point is up-basin from Growth)	Growth area mostly developed	Growth area very small			
1	X	X			NO	TRC Plan	NO
2	X		X	X	NO?	Federal and State land, zoning, TRC plan	NO
3	X		X	X	NO?	County Park, State land, zoning	NO
4	X	X			Perhaps?	State land, zoning	NO
5	X	X	X	X	NO	State land, zoning	NO
6	X	X			Perhaps?	Cluster development, Hamilton open space plan	Implementation, Retrofits
7	X	X	X	X	NO	State land, zoning	NO
8	X	X	X	X	NO	Hamilton open space plan	Implementation, Retrofits
9	X				Perhaps?	State land	BMPs, Retrofits, Re-look at RGD
10	X				Perhaps?	State land	BMPs
11	X				Perhaps?	Township/county acquisitions	Stream protection zone, BMPs, Retrofits
12, 13, 14	X	X	X	X	NO	Medford Evesham Plan	NO
15	X	X	X	X	NO		NO
16, 17	X	X	X	X	NO	State land, zoning	Retrofits
18	X	X	X	X	NO	State land, zoning	Retrofits
19, 20	X	X	X	X	NO	State land, zoning	Retrofits
21, 22	X	X	X	X	NO	State land, zoning	Retrofits
23		X		X	Perhaps?	State land, zoning	BMP, Retrofits

Subwatersheds within Regional Growth Areas of the Pinelands



Prepared By: NJ Pinelands Commission, 2/2005

Data Sources: NJDEP, NJPC

Table:
Units Approved or Constructed from 2000 to 2004

Units Approved or Constructed from 2000 to 2004

Management Area Name	County	Management Area	2000-2004 Approved Units
Egg Harbor Township	Atlantic	RGA	1,958
Galloway Township	Atlantic	RGA	1,125
Hamilton Township	Atlantic	RGA	1,789
Buena Borough	Atlantic	Town	0
Buena Vista Township	Atlantic	Town	4
Egg Harbor City	Atlantic	Town	0
Hammonton Township	Atlantic	Town	403
Mullica Township	Atlantic	Town	0
South Egg Harbor (Galloway)	Atlantic	Town	0
Cologne-Germania	Atlantic	Village	0
Pomona	Atlantic	Village	0
Subtotal			**5,279**
Evesham Township	Burlington	RGA	0
Medford Lakes Borough	Burlington	RGA	4
Medford Township	Burlington	RGA	36
Pemberton Township	Burlington	RGA	0
Shamong Township	Burlington	RGA	0
Southampton Township	Burlington	RGA	6
Tabernacle Township	Burlington	RGA	27
New Lisbon	Burlington	Village	0
Subtotal			**73**
Berlin Borough	Camden	RGA	0
Berlin Township	Camden	RGA	0
Chesilhurst Borough	Camden	RGA	0
Waterford Township	Camden	RGA	38
Winslow Township	Camden	RGA	512
Blue Anchor	Camden	Village	24
Tansboro	Camden	Village	0
Waterford Works (Waterford)	Camden	Village	0
Waterford Works (Winslow)	Camden	Village	0
Subtotal			**574**
Woodbine	Cape May	Town	3
Subtotal			**3**
Monroe	Gloucester	RGA	562
Subtotal			**562**
Barnegat Township	Ocean	RGA	1,804
Beachwood Borough	Ocean	RGA	0
Berkeley Township	Ocean	RGA	0
Dover Township	Ocean	RGA	0
Jackson Township	Ocean	RGA	16
Manchester Township	Ocean	RGA	605
South Toms River Borough	Ocean	RGA	0
Stafford Township	Ocean	RGA	0
Lakehurst Borough	Ocean	Town	0
Whiting (Manchester)	Ocean	Town	230
Cassville	Ocean	Village	7
Vanhiseville	Ocean	Village	0
Subtotal			**2,662**
Total			**9,153**

APPENDIX 10

LOCAL-LEVEL ASSIGNMENT

Tables:

Local Assignment - GIS Adjustment

Summary of Economic Adjustments

Local Assignment - Economic Adjustment

Local Assignment
GIS Adjustment

Management Area Name	County	Management Area	GIS Overall Vacant Developable (acres)	% of Total Vacant Developable	GIS Assignment (units)
Egg Harbor Twp	Atlantic	RGA	6,027	41%	6,118
Galloway	Atlantic	RGA	1,670	11%	1,695
Hamilton	Atlantic	RGA	1,783	12%	1,810
Buena Borough	Atlantic	Town	221	2%	224
Buena Vista	Atlantic	Town	124	1%	126
Egg Harbor City	Atlantic	Town	239	2%	243
S. Egg Harbor City (Galloway)	Atlantic	Town	706	5%	717
Hammonton	Atlantic	Town	3,137	22%	3,184
Hammonton (Mullica)	Atlantic	Town	204	1%	207
Cologne-Germania (Galloway)	Atlantic	Village	309	2%	314
Pomona (Galloway)	Atlantic	Village	140	1%	142
Subtotal			**14,560**	**100%**	**14,780**
Evesham	Burlington	RGA	73	2%	95
Medford Lakes	Burlington	RGA	7	0%	9
Medford	Burlington	RGA	1,049	34%	1,362
Pemberton Twp	Burlington	RGA	873	28%	1,134
Shamong	Burlington	RGA	298	10%	387
Southampton	Burlington	RGA	112	4%	145
Tabernacle	Burlington	RGA	685	22%	890
New Lisbon (Pemberton Twp)	Burlington	Village	14	0%	18
Subtotal			**3,111**	**100%**	**4,040**
Berlin Boro	Camden	RGA	68	1%	62
Berlin Twp	Camden	RGA	1	0%	1
Chesilhurst	Camden	RGA	504	11%	460
Waterford	Camden	RGA	531	12%	484
Winslow	Camden	RGA	2,811	61%	2,563
Waterford Works (Waterford)	Camden	Village	89	2%	81
Blue Anchor (Winslow)	Camden	Village	352	8%	321
Tansboro (Winslow)	Camden	Village	120	3%	109
Waterford Works (Winslow)	Camden	Village	119	3%	109
Subtotal			**4,595**	**100%**	**4,190**
Woodbine	Cape May	Town	981	100%	550
Subtotal			**981**	**100%**	**550**
Monroe	Gloucester	RGA	2,059	100%	1,400
Subtotal			**2,059**	**100%**	**1,400**
Barnegat	Ocean	RGA	1,875	32%	3,967
Beachwood	Ocean	RGA	37	1%	78
Berkeley	Ocean	RGA	19	0%	40
Dover	Ocean	RGA	0	0%	0
Jackson	Ocean	RGA	700	12%	1,481
Manchester	Ocean	RGA	931	16%	1,970
S Toms River	Ocean	RGA	44	1%	93
Stafford	Ocean	RGA	1,002	17%	2,120
Lakehurst	Ocean	Town	62	1%	131
Whiting (Manchester)	Ocean	Town	1,059	18%	2,241
Cassville (Jackson)	Ocean	Village	127	2%	269
Vanhiseville (Jackson)	Ocean	Village	85	1%	180
Subtotal			**5,941**	**100%**	**12,570**
Total			**31,247**		**37,530**

Summary of Adjustments

		Assesment Model		Jobs Model		Transit Score Model		Sum of All 3 Models	
Management Area Name	County	Actual Change (units)	% Change	Actual Change (units)	% Change	Actual Change (units)	% Change	Actual Change (units)	% Change
Hammonton	Atlantic	34	1.1%	22	0.7%	0	0.0%	56	1.8%
Egg Harbor Twp	Atlantic	66	1.1%	41	0.7%	0	0.0%	107	1.7%
Hamilton	Atlantic	19	1.0%	-39	-2.2%	0	0.0%	-20	-1.1%
Buena	Atlantic	-3	-1.3%	0	0.0%	0	0.0%	-3	-1.3%
Pomona (Galloway)	Atlantic	-4	-2.8%	1	0.7%	0	0.0%	-3	-2.1%
Galloway	Atlantic	-50	-2.9%	12	0.7%	0	0.0%	-38	-2.2%
Egg Harbor City	Atlantic	2	0.8%	-8	-3.3%	0	0.0%	-6	-2.5%
Cologne-Germania (Galloway)	Atlantic	-10	-3.2%	-6	-1.9%	0	0.0%	-16	-5.1%
S. Egg Harbor (Galloway)	Atlantic	-21	-2.9%	-18	-2.5%	0	0.0%	-39	-5.4%
Buena Vista	Atlantic	-11	-8.7%	-2	-1.6%	0	0.0%	-13	-10.3%
Hammonton (Mullica)	Atlantic	-22	-10.6%	-3	-1.4%	0	0.0%	-25	-12.1%
Evesham	Burlington	11	11.6%	2	2.0%	0	0.0%	12	13.5%
Medford Lakes	Burlington	0	0.0%	0	0.0%	1	11.1%	1	11.1%
Medford	Burlington	47	3.5%	27	2.0%	0	0.0%	74	5.4%
Pemberton Twp	Burlington	12	1.1%	-5	-0.4%	0	0.0%	7	0.7%
New Lisbon (Pemberton Twp)	Burlington	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Southampton	Burlington	-1	-0.7%	0	0.0%	0	0.0%	-1	-0.7%
Shamong	Burlington	-22	-5.7%	-6	-1.6%	0	0.0%	-28	-7.3%
Tabernacle	Burlington	-47	-5.3%	-17	-2.0%	-1	-0.1%	-65	-7.3%
Berlin Boro	Camden	5	8.1%	1	2.0%	4	6.5%	11	16.5%
Tansboro (Winslow)	Camden	1	0.9%	2	2.0%	0	0.0%	3	2.9%
Waterford	Camden	-2	-0.4%	10	2.0%	0	0.0%	8	1.6%
Winslow	Camden	11	0.4%	1	0.0%	0	0.0%	12	0.5%
Berlin Twp	Camden	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Waterford Works (Winslow)	Camden	0	0.0%	-2	-1.8%	0	0.0%	-2	-1.8%
Waterford Works (Waterford)	Camden	0	0.0%	-1	-1.7%	-1	-1.2%	-2	-2.9%
Blue Anchor (Winslow)	Camden	1	0.3%	-10	-3.0%	-3	-0.9%	-12	-3.7%
Chesilhurst	Camden	-16	-3.5%	-2	-0.3%	0	0.0%	-18	-3.8%
Lakehurst	Ocean	7	5.3%	8	6.1%	10	7.6%	25	19.1%
Manchester	Ocean	105	5.3%	121	6.1%	0	0.0%	226	11.5%
S Toms River	Ocean	2	2.2%	-1	-1.1%	7	7.5%	8	8.6%
Whiting (Manchester)	Ocean	120	5.4%	39	1.7%	0	0.0%	159	7.1%
Jackson	Ocean	-15	-1.0%	91	6.1%	-4	-0.3%	72	4.9%
Cassville (Jackson)	Ocean	-3	-1.1%	16	5.9%	-1	-0.4%	12	4.5%
Vanhiseville (Jackson)	Ocean	-2	-1.1%	11	6.1%	-1	-0.6%	8	4.4%
Dover	Ocean	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Berkeley	Ocean	-3	-7.5%	1	2.5%	0	0.0%	-2	-5.0%
Stafford	Ocean	-31	-1.5%	-77	-3.6%	0	0.0%	-108	-5.1%
Barnegat	Ocean	-173	-4.4%	-207	-5.2%	-12	-0.3%	-392	-9.9%
Beachwood	Ocean	-7	-9.0%	-2	-2.6%	1	1.3%	-8	-10.3%

Local Assignment
Economic Adjustment

Management Area Name	County	Mgmt. Area	GIS Overall Vacant Developable (acres)	% of Total Vacant Developable	GIS Assignment (units)	Cumulative Economic Adjustment (units)	Adjusted Assignment (units)
Egg Harbor Twp	Atlantic	RGA	6,027	41%	6,118	107	6,225
Galloway	Atlantic	RGA	1,670	11%	1,695	-38	1,657
Hamilton	Atlantic	RGA	1,783	12%	1,810	-20	1,790
Buena Borough	Atlantic	Town	221	2%	224	-3	221
Buena Vista	Atlantic	Town	124	1%	126	-13	113
Egg Harbor City	Atlantic	Town	239	2%	243	-6	237
S. Egg Harbor City (Galloway)	Atlantic	Town	706	5%	717	-39	678
Hammonton	Atlantic	Town	3,137	22%	3,184	56	3,240
Hammonton (Mullica)	Atlantic	Town	204	1%	207	-25	182
Cologne-Germania (Galloway)	Atlantic	Village	309	2%	314	-16	298
Pomona (Galloway)	Atlantic	Village	140	1%	142	-3	139
Subtotal			**14,560**	**100%**	**14,780**		**14,780**
Evesham	Burlington	RGA	73	2%	95	12	107
Medford Lakes	Burlington	RGA	7	0%	9	1	10
Medford	Burlington	RGA	1,049	34%	1,362	74	1,436
Pemberton Twp	Burlington	RGA	873	28%	1,134	7	1,141
Shamong	Burlington	RGA	298	10%	387	-28	359
Southampton	Burlington	RGA	112	4%	145	-1	144
Tabernacle	Burlington	RGA	685	22%	890	-65	825
New Lisbon (Pemberton Twp)	Burlington	Village	14	0%	18	0	18
Subtotal			**3,111**	**100%**	**4,040**		**4,040**
Berlin Boro	Camden	RGA	68	1%	62	11	73
Berlin Twp	Camden	RGA	1	0%	1	0	1
Chesilhurst	Camden	RGA	504	11%	460	-18	442
Waterford	Camden	RGA	531	12%	484	8	492
Winslow	Camden	RGA	2,811	61%	2,563	12	2,575
Waterford Works (Waterford)	Camden	Village	89	2%	81	-2	79
Blue Anchor (Winslow)	Camden	Village	352	8%	321	-12	309
Tansboro (Winslow)	Camden	Village	120	3%	109	3	112
Waterford Works (Winslow)	Camden	Village	119	3%	109	-2	107
Subtotal			**4,595**	**100%**	**4,190**		**4,190**
Woodbine	Cape May	Town	981	100%	550		550
Subtotal			**981**	**100%**	**550**		**550**
Monroe	Gloucester	RGA	2,059	100%	1,400		1,400
Subtotal			**2,059**	**100%**	**1,400**		**1,400**
Barnegat	Ocean	RGA	1,875	32%	3,967	-392	3,575
Beachwood	Ocean	RGA	37	1%	78	-8	70
Berkeley	Ocean	RGA	19	0%	40	-2	38
Dover	Ocean	RGA	0	0%	0	0	0
Jackson	Ocean	RGA	700	12%	1,481	72	1,553
Manchester	Ocean	RGA	931	16%	1,970	226	2,196
S Toms River	Ocean	RGA	44	1%	93	8	101
Stafford	Ocean	RGA	1,002	17%	2,120	-108	2,012
Lakehurst	Ocean	Town	62	1%	131	25	156
Whiting (Manchester)	Ocean	Town	1,059	18%	2,241	159	2,400
Cassville (Jackson)	Ocean	Village	127	2%	269	12	281
Vanhiseville (Jackson)	Ocean	Village	85	1%	180	8	188
Subtotal			**5,941**	**100%**	**12,570**		**12,570**
Total			**31,247**		**37,530**		**37,530**

LOCAL-LEVEL ASSIGNMENT

Table:
Composite Adjustment Reflecting Units Approved from 2000 to 2004

Local Assignment
Accounting for Units Approved from 2000 to 2004

Management Area Name	Vacant Developable (acres)	% of Total Developable	Economic Adjusted Assignment	2000-2004 Approved Units	Composite Adjustment (units)
Egg Harbor Twp	6,027	41%	6,225	1,958	4,267
Galloway	1,670	11%	1,657	1,125	532
Hamilton	1,783	12%	1,790	1,789	1
Buena Borough	221	2%	221	0	221
Buena Vista	124	1%	113	4	109
Egg Harbor City	239	2%	237	0	237
S. Egg Harbor City (Galloway)	706	5%	678	403	275
Hammonton	3,137	22%	3,240	0	3,240
Hammonton (Mullica)	204	1%	182	0	182
Cologne-Germania (Galloway)	309	2%	298	0	298
Pomona (Galloway)	140	1%	139	0	139
Subtotal	**14,560**	**100%**	**14,780**	**5,279**	**9,501**
Evesham	73	2%	107	0	107
Medford Lakes	7	0%	10	4	6
Medford	1,049	34%	1,436	36	1,400
Pemberton Twp	873	28%	1,141	0	1,141
Shamong	298	10%	359	0	359
Southampton	112	4%	144	6	138
Tabernacle	685	22%	825	27	798
New Lisbon (Pemberton Twp)	14	0%	18	0	18
Subtotal	**3,111**	**100%**	**4,040**	**73**	**3,967**
Berlin Boro	68	1%	73	0	73
Berlin Twp	1	0%	1	0	1
Chesilhurst	504	11%	442	0	442
Waterford	531	12%	492	38	454
Winslow	2,811	61%	2,575	512	2,063
Waterford Works (Waterford)	89	2%	79	24	55
Blue Anchor (Winslow)	352	8%	309	0	309
Tansboro (Winslow)	120	3%	112	0	112
Waterford Works (Winslow)	119	3%	107	0	107
Subtotal	**4,595**	**100%**	**4,190**	**574**	**3,616**
Woodbine	981	100%	550	3	547
Subtotal	**981**	**100%**	**550**	**3**	**547**
Monroe	2,059	100%	1,400	562	838
Subtotal	**2,059**	**100%**	**1,400**	**562**	**838**
Barnegat	1,875	32%	3,575	1,804	1,771
Beachwood	37	1%	70	0	70
Berkeley	19	0%	38	0	38
Dover	0	0%	0	0	0
Jackson	700	12%	1,553	16	1,537
Manchester	931	16%	2,196	605	1,591
S Toms River	44	1%	101	0	101
Stafford	1,002	17%	2,012	0	2,012
Lakehurst	62	1%	156	0	156
Whiting (Manchester)	1,059	18%	2,400	230	2,170
Cassville (Jackson)	127	2%	281	7	274
Vanhiseville (Jackson)	85	1%	188	0	188
Subtotal	**5,941**	**100%**	**12,570**	**2,662**	9,908
Total	**31,247**		**37,530**	**9,153**	**28,377**

HOUSING DEMAND ASSESSMENT PROJECT
Final Report

January, 2007

APPENDIX 11

Notice of 12/06/06 Public Meeting
12/06/06 Meeting Handout
2/15/06 Response Document

Public Comments/Responses

NOTICE OF A PUBLIC MEETING

PINELANDS HOUSING TASK FORCE
HOUSING DEMAND ASSESSMENT PROJECT

Preliminary Report

MEETING PURPOSE
A Public Meeting will be held on Tuesday, December 6, 2005 to present the Pinelands Housing Task Force Preliminary Report.

Since July, 2004 the Pinelands Housing Task Force has been meeting to review and update projections of housing demand within the Pinelands and to determine whether zone capacities within and outside the Pinelands area were appropriate to serve future demand. Several reasons prompted the Pinelands Commission to undertake this housing demand assessment, including:

1. The population data that served as the basis for housing allocations in the original CMP (1981) were derived from 1979 population counts released prior to the official 1980 Census data. By the Commission's 2001 CMP review, this data was considerably out of date.
2. The Commission has embarked on a major review of the Kirkwood Cohansey aquifer. This study is intended to determine how the current and future water-supply needs within the Pinelands may be met while protecting the Kirkwood-Cohansey aquifer system and avoiding any adverse ecological impact on the Pinelands. Resource quality and capacity and housing demand are inextricably related.
3. Accurate projections of housing demand will provide a reliable basis for municipal capital investment and infrastructure planning.
4. Refined housing projections will help to respond to questions regarding the appropriateness of the designation and size of growth areas throughout the Pinelands.

The Task Force has completed its Preliminary Report and the purpose of the public meeting is to present the Report to the public and other interested parties and to offer the opportunity for public input.

MEETING TIME
The meeting will begin at 7:00 p.m.

MEETING PLACE
The meeting will be held at the Southampton Municipal Building. The Municipal Building is located on Route 206, across from the WaWa, at the signaled intersection of Route 206 and Retreat Road, between Routes 38 and 70.

REVIEW THE REPORT
The Housing Task Force Housing Demand Assessment Preliminary Report has been posted on the Pinelands Commission's web site: http://www.nj.gov/pinelands/

QUESTIONS
Contact Paul Leakan, Pinelands Communications Office, at 609-894-7300.

Introduction

The Pinelands Comprehensive Management Plan (CMP) regulates the location, type and amount of development permitted in the Pinelands and establishes development regulations to protect water and other natural resources. To control the location, type and amount of development, the CMP divides the Pinelands Area into nine "*management*" areas in which different types and amounts of development are permitted. Three of those nine management areas (Regional Growth Areas, Pinelands villages and Pinelands towns) permit traditional residential and business development and were designed in 1980 to accommodate the vast majority of the region's future housing demand.

Purpose of the Housing Assessment

The original housing demand assessments were completed in 1980 and formed the basis for the development-related policies of the CMP. After 25 years, the Pinelands Commission decided to examine current housing demand so as to determine whether these development areas are still capable of accommodating future housing needs.

The Housing Task Force

To undertake the assessment of housing demand and Pinelands development capacity the Pinelands Commission established a Housing Task Force representing a diverse and broad range of interests consisting of representatives from the following organizations:

- Pinelands Commission (2 members to serve as Chair and Vice Chair)
- New Jersey Department of Community Affairs
- New Jersey Department of Environmental Protection
- New Jersey Department of Transportation
- Coalition for Housing and the Environment
- 7 Pinelands Area County Planning Offices (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Ocean)
- New Jersey Builders Association
- Pinelands municipalities (a municipal representative from each of the 5 Pinelands Regional Growth counties, to be designated by the Pinelands Municipal Council)
- Pinelands Preservation Alliance
- New Jersey State Chamber of Commerce

Principal Conclusion

The Housing Task Force has been meeting regularly since July 2004. After a rigorous examination of the development needs for all of southern New Jersey, the Task Force concluded that there is more than adequate capacity to accommodate future housing demand over the next 20 years both within and outside the Pinelands Area. The table on the following page illustrates the basis for this conclusion, indicating that, as of 2000 there were 41,460 acres of vacant developable land within the Pinelands Regional Growth Areas, Towns and Villages within sewer service areas - and a projected 2000 - 2020 housing demand of 37,530 dwelling units.

Next Steps

Before finalizing its report, the Task Force is seeking public input on its preliminary recommendations. Once the Task Force report is finalized, the Pinelands Commission will then determine whether any adjustments in Pinelands land use policies need to be made. When considering this question, the Commission will look at the size and zoning densities of these development areas, taking into account:

- Development needs and available land beyond 2020;
- How to ensure that there are sufficient opportunities for density transfer;
- Whether local zoning plans make efficient use of available land;
- Whether water supply will be adequate to meet demands in growth areas;
- How to most effectively minimize conflicts between higher density development areas and areas that support populations of threatened and endangered species.

Preliminary 2000-2020 Housing Assignments
Regional Growth Areas, Towns and Villages within Sewer Service Areas

Management Area Name	County	Growth Area	Vacant Developable (acres)	% of County Total Vacant Acres	RGA/Town/ Village Units
Egg Harbor Twp RGA	Atlantic	RGA	7,120	38%	5,685
Galloway RGA	Atlantic	RGA	1,970	11%	1,573
Hamilton RGA	Atlantic	RGA	3,700	20%	2,954
Buena	Atlantic	Town	220	1%	176
Buena (Buena Vista)	Atlantic	Town	120	1%	96
S. Egg Harbor (Galloway)	Atlantic	Town	800	4%	639
Egg Harbor City	Atlantic	Town	560	3%	447
Hammonton (Mullica)	Atlantic	Town	200	1%	160
Hammonton	Atlantic	Town	3,310	18%	2,643
Cologne-Germania (Galloway)	Atlantic	Village	310	2%	248
Pomona (Galloway)	Atlantic	Village	200	1%	160
Subtotal			**18,510**	**100%**	**14,780**
Evesham RGA	Burlington	RGA	60	2%	65
Medford Lakes RGA	Burlington	RGA	10	0%	11
Medford RGA	Burlington	RGA	1,410	38%	1,531
Pemberton Twp RGA	Burlington	RGA	1,000	27%	1,086
Shamong RGA	Burlington	RGA	310	8%	337
Southampton RGA	Burlington	RGA	240	6%	261
Tabernacle RGA	Burlington	RGA	680	18%	738
New Lisbon (Pemberton Twp)	Burlington	Village	10	0%	11
Subtotal			**3,720**	**100%**	**4,040**
Berlin Boro RGA	Camden	RGA	140	3%	113
Berlin Twp RGA	Camden	RGA	30	1%	24
Chesilhurst RGA	Camden	RGA	500	10%	404
Waterford RGA	Camden	RGA	580	11%	468
Winslow RGA	Camden	RGA	3,240	62%	2,616
Blue Anchor (Winslow)	Camden	Village	370	7%	299
Tansboro (Winslow)	Camden	Village	120	2%	97
Waterford Works (Waterford)	Camden	Village	90	2%	73
Waterford Works (Winslow)	Camden	Village	120	2%	97
Subtotal			**5,190**	**100%**	**4,190**
Woodbine	Cape May	Town	2,330	100%	550
Subtotal			**2,330**	**100%**	**550**
Monroe RGA	Gloucester	RGA	2,400	100%	1,400
Subtotal			**2,400**	**100%**	**1,400**
Barnegat RGA	Ocean	RGA	2,310	25%	3,119
Beachwood RGA	Ocean	RGA	210	2%	284
Berkeley RGA	Ocean	RGA	170	2%	230
Jackson RGA	Ocean	RGA	1,500	16%	2,025
Manchester RGA	Ocean	RGA	1,150	12%	1,553
S Toms River RGA	Ocean	RGA	40	0%	54
Stafford RGA	Ocean	RGA	1,710	18%	2,309
Lakehurst	Ocean	Town	50	1%	68
Whiting (Manchester)	Ocean	Town	1,550	17%	2,093
Cassville (Jackson)	Ocean	Village	470	5%	635
Vanhiseville (Jackson)	Ocean	Village	150	2%	203
Subtotal			**9,310**	**100%**	**12,570**
TOTAL			**41,460**		**37,530**

NOTE: The housing assignment figures in the foregoing table represent a land use intensity analysis and do not reflect the number of units constructed and/or developed since 2000.

PINELANDS HOUSING TASK FORCE

HOUSING DEMAND ASSESSMENT PROJECT

Response Document

FEBRUARY 15, 2006

Introduction

On October 13, 2005 the Pinelands Housing Task Force completed its work on the Housing Demand Assessment Project and issued its Preliminary Report. The Task Force authorized Pinelands Commission staff to conduct a meeting to provide the public the opportunity to comment on the report. As part of Report, the Task Force has assembled the following information to document the process that was followed to solicit input, to review all comments received during this process and to present responses to all such comments.

Public Input Process

Notice of Public Meeting

On November 16, 2005, a notice was posted on the Pinelands Commission's web site advising interested parties of an upcoming public meeting to present the Housing Task Force Report. The meeting was scheduled for Tuesday, December 6, 2005 (7:00 p.m., Southampton Township Municipal Building). To provide opportunity for public comment, the Report was also posted on the Commission's web site on November 16th and, as of the date of this document, remains available for review at http://www.nj.gov/pinelands/. In addition, on November 29, 2005, notice was sent to all 52 municipalities within the Pinelands Area (*see copy attached*) advising of the date, time and location of the public meeting, inviting representatives from each community to attend the public meeting and comment on the Report.

Press Briefing

On November 30, 2005, a total of 27 newspapers serving municipalities throughout the Pinelands Area were invited to a press briefing. The briefing was scheduled for the afternoon of the December 6, 2005 public meeting (*see attached Press Advisory*). The objective of the briefing was to give local reporters the opportunity to familiarize themselves with the Report findings and recommendations. To encourage participation, conference call access to the briefing was arranged and a report summary (*attached*) was distributed. Representatives from three area newspapers – the Burlington County Times, the Asbury Park Press, and the Central Record, participated in the briefing meeting. Copies of two newspaper articles on the Report that were subsequently printed are attached.

Public Meeting

During the December 6, 2005 public meeting the Housing Task Force Report Summary, noted above, was distributed to all attendees. A total of 6 individuals attended the meeting (*see the copy of the Sign-in Sheet, attached*).

At the conclusion of the public meeting, participants were advised that the comment period for the report would extend until January 25, 2006 to afford adequate opportunity to review the plan and submit any questions, comments or concerns to the Pinelands Commission.

Additional Review Meeting

In a letter dated November 17, 2005, the Director of Land Use and Planning for the New Jersey Builders Association formally requested additional time to review the Housing Task Force Report and asked that the December 6, 2005 public meeting be rescheduled to a later date (*see request letter attached*). Since notice had been posted on the Commission's web site prior to receipt of this request, it was decided that the public meeting would be convened as scheduled but that a separate meeting would be arranged with representatives from the Builders Association and/or any other organization specifically interested in commenting on the Report. Such additional meetings would be scheduled prior to the expiration of the January 25, 2006 comment period.

Continuing Public Outreach

In a further effort to notify potentially interested parties about the Housing Task Force Report, an article describing the Report has been included in the Winter 2006 edition of "The Pinelander", the regularly published newsletter of the Pinelands Commission (*see copy attached*). The Pinelander is distributed to over 2,300 individuals and organizations throughout the area (including: State, county, and municipal officials; environmental organizations; local media; commercial and professional organizations; and the general public).

Comments

Public Meeting

Following a summary presentation of the Report, the only question raised during the public meeting was posed by a representative for Maurice River Township. That representative asked how the Commission would address the need to meet affordable housing obligations in accordance with the requirements of the Council on Affordable Housing (COAH).

Response:

It was noted that the Pinelands Protection Act precludes the Commission from imposing affordable housing. Specifically, Section 13:18A-12 b. states that *"…The number of low or moderate income housing units provided for in the revised plan shall*

not be used by the commission as a criterion for the approval, rejection, or conditional approval of the revised plan." In addition, Section 13:18A-15 of the Act establishes that "*The number of low or moderate income housing units provided for in the application for development shall not be used as a criterion for the approval or rejection of the application*".

It was also noted that the Commission is party to a Memorandum of Agreement (MOA) with COAH to ensure the coordination of the agencies' responsibilities. The MOA provisions indicate that prospective need for affordable housing shall apply to Regional Growth or Pinelands Town Areas.

It was suggested that, given the recently released Round 3 COAH methodology for calculating local affordable housing obligations, it may be an appropriate time to revisit the MOA to ensure continued coordination of the efforts between the Commission and COAH. It was also noted that neither the Housing Task Force Report nor the Pinelands Protection Act prevents municipalities from planning to meet their COAH obligations in any of the three growth areas - Regional Growth Areas, Towns or Villages.

New Jersey Builders Association Meeting

Discussion with the New Jersey Builders Association as it related to the Housing Task Force Report was included as an agenda item for a January 19, 2006 meeting, one of the regular quarterly meetings scheduled with the Pinelands Commission staff (*see meeting agenda attached*). The representatives from the Builders' Association expressed no particular objections or concerns regarding the Housing Task Force Report. However, they were interested in learning about the steps that would be taken following completion of the Report.

Response:

Staff indicated that the next steps in the process will be to convert the Housing Task Force Report recommendations into policy directives and Comprehensive Management Plan regulations for implementation. It was noted that each of the future policy issues presented in the Task Force's report will be analyzed as the Commission seeks to translate the recommendations into land use policies and regulations:

Written Comments

The Pinelands Commission received two written comments in response to the Housing Task Force Report. One letter, dated October 20, 2005 was submitted by Medford Township. The other letter, dated December 14, 2005, was from Medford Lakes Borough (s*ee copies of the letters attached*). In both cases, the commenter expressed disagreement with the estimate of vacant developable land within the respective municipality. In accordance with the assignment methodology detailed in the Housing Task Force Report, the quantity of vacant developable land served as the primary basis for the estimated 2020 housing demand. In the case of Medford Township, the estimated housing demand is 1,531 units and in the case of Medford Lakes Borough it is 11 units. The commenters suggested that the Report overestimates the current supply of vacant, developable land.

Response:

As noted in the Housing Task Force Report, the Housing Demand Assessment was designed to project housing need between 2000 and 2020 using the most current census data. To avoid double-counting, it will be necessary to account for the number of housing units that have been constructed since 2000. Land relating to such approved, constructed and/or committed units will also have to be deducted from the vacant developable land figures for all regional growth areas, towns and villages.

However, the Task Force concluded that there is no fail-safe system presently in place to confirm the number of permits issued or the number of units actually constructed since 2000. Consequently, the Task Force concluded that the issue of "approved units" would be more effectively addressed when each community engages in the zoning ordinance certification process once the Pinelands Commission issues its land use policies and regulations.

HOUSING DEMAND ASSESSMENT PROJECT
Final Report

January, 2007

APPENDIX 12

Analysis of Sustainable Use of Land

10/06/06 Memo to the Housing Task Force
"Sustainable Use of Land – Recommended Density"

12/18/06 Memo to the Housing Task Force
"Sustainable Use of Land – Analysis Continued"

State of New Jersey
THE PINELANDS COMMISSION
PO BOX 7
NEW LISBON NJ 08064
(609) 894-7300

JON S. CORZINE
Governor

JOHN C. STOKES
Executive Director

Memorandum

To: Members of the Housing Task Force

From: David Kutner, Director of Special Programs

Subject: Sustainable Use of Land – Recommended Density

Date: October 6, 2006

The Housing Task Force Report revealed that, as of 2000, there were 41,460 vacant, developable acres in Pinelands Villages within sewer service areas, Regional Growth Areas, and Towns. The Report also indicates that between 2000 and 2020 there will be a demand for 37,530 housing units, based on population projections from the NJ Department of Labor. Consequently, more than sufficient land is available to accommodate the demand for housing into the future[1]. The Report acknowledges that the supply of land is adequate to meet the projected demand and reflects several recommendations made by the Housing Task Force that are specifically intended to ensure that the land consumed to accommodate this future housing demand is used efficiently. Chief among these is the recommendation that communities should be encouraged to *"affirmatively plan for greater land use efficiency to avoid sprawl and meet the diverse housing needs of the population*". In addition, the Housing Task Force recommended that reasonable opportunities should be assured for the use of Pinelands Development Credits and that developable land is reserved so that post 2020 demand for housing can be accommodated. The question, then, is at what density should development be encouraged?

Setting housing density merely by dividing the 2000 vacant land figures by the 2020 housing demand would be inconsistent with the Task Force Report recommendations. Several factors support higher residential densities within the developable areas of the Pinelands than would be derived through this simple mathematical construct, including the need to:

- achieve land use efficiency;
- provide a variety of housing opportunities;
- reduce development pressures outside growth areas;
- ease the cost of providing services (police, fire, school transportation, trash collection);
- decrease per capita costs of infrastructure development;
- accommodate housing demand beyond 2020.

Studies of land use and development form - conducted by an array of planning and environmental organizations, state and federal agencies[2] - clearly reveal that less land-consumptive development densities can help to address all of these factors. The three recommendations, detailed below, are

[1] Since the draft Housing Task Force Report was completed in March, 2006, the calculation of vacant developable land, based on the 1995-1997 NJDEP and 2000 DVRPC Land Use/Land Cover Data, has been refined. The current count of vacant developable land is 40,828 acres, 632 acres (1.5%) *less* than the original count.

[2] The reference materials reviewed in conjunction with this memo are listed on pages 4 and 5

specifically intended to respond to the objective of achieving sustainable use of land through more efficient development patterns.

1. Overall Density: The *overall* density in development areas (Regional Growth Areas and Towns[3]) should permit development at 3 dwellings per acre of residentially zoned land based upon the factors described below.

a. According to the most recent Land Use/Land Cover data from the New Jersey Department of Environmental Protection (1995), a total of 267,914 acres of land was developed for residential use throughout the seven Counties within the Pinelands. The total number of households (population ÷ average household size) in these Counties in 1995 was 789,224. Therefore, the overall housing density in 1995 was 3 dwellings per acre (789,224 ÷ 267,914 = 2.9).

b. Comparison of CAFRA development intensities to CMP density prescriptions reveals that within the PA2 area (suburban areas within sewer service areas), the area that is most similar to the Pinelands Regional Growth Area[4], the permitted extent of impervious cover is 30%. This is equivalent to the amount of cover that would otherwise be associated with a typical CMP residential density of between 2.5 to 3 dwellings per acre.

The New Jersey State Development and Redevelopment Plan provides further support for this residential density proposal. The Plan recommends center-based development patterns as the preferred vehicle for accommodating growth for several reasons. These include the significant land savings, reduced traffic, environmental protection and reduced infrastructure costs that are likely to result. The Plan establishes thresholds for land area, population, employment and residential densities for a range of centers[5]. The recommendation for gross housing density for Planning Area (PA) 2 is >3 dwelling units per acre[6]. It is important to emphasize that, as a gross density, this figure includes all land uses within a given area. Therefore, the State Plan effectively recommends densities applicable to residentially zoned land that are higher than 3 dwellings/acre.

Currently, residential densities prescribed by the Comprehensive Management Plan vary for each of the Pinelands Regional Growth Areas. A uniform density requirement will constitute a considerable departure from these provisions[7]. However, municipalities will continue to have wide latitude to establish a range of zone densities, exercising considerable control over the form of their development patterns, as is the case under the present standards.

Furthermore, it is unlikely that a municipality's vacant land would be developed exclusively for residential purposes. Typical development patterns represent a balance of residential and nonresidential land use. An evaluation of parcel-level assessment data for the 202 municipalities of South Jersey suggests that the amount of non-residential uses may approach 25% of a municipality's total developed land[8]. Based on this data, it is recommended that land zoned exclusively for non-

[3] Residential densities for Villages, including those that have sewer service, are not considered in these recommendations. This issue will be addressed through the Pinelands Development Credit program analysis that is presently being undertaken by the Commission.

[4] Suburban Planning Area (PA2) is generally located adjacent to the more densely developed metropolitan planning area. These areas have been designated for growth and are generally characterized by the availability of developable land and a lack of high intensity centers. These areas are or will be served by regional infrastructure but have limited (if any) alternative modes of transportation.

[5] See pg 231 of the State Plan

[6] The CMP defines "developable land" as privately held, non-wetlands with a seasonal high water table exceeding 1.5 feet, where sewer systems are available.

[7] In addition to variable residential densities, current CMP requirements apply the density standard to privately owned, undeveloped uplands and require that the densities be increased by an average of 50% to account for Pinelands Development Credit use.

[8] Source: New Jersey Department of Treasury, Division of Taxation assessment class proportion information, 2003, 2004, and 2005. This data provides a measure of a municipality's tax base for vacant land, residential, agricultural, commercial, industrial, apartment and exempt land uses and was used as a surrogate for the amount of land occupied by each of these uses.

residential uses should be excluded from the calculation of vacant land to the extent that a municipality could provide for up to 25% of its total land area for non-residential uses.

2. Centers– Given a density assignment of 3 dwellings/acre, how should development be arranged? To further the objective of sustainable use of land, it is recommended that towns throughout the Pinelands be encouraged to establish centers that encompass a compact mixture of land use and allow higher residential densities than elsewhere within the Regional Growth areas or Pinelands Town areas.

Possible guidelines for center design: Although we are not recommending that centers be mandated, nor are we suggesting that the CMP set forth particular standards for their design, the Commission's work with municipalities participating in the Pinelands Excellence program does suggest a conceptual framework for centers. Based on this work, a center may occupy the core area of a growth area within which a mixture of land uses are permitted including commercial, retail, residential and public uses. As noted above, development within a center should be compact with higher density housing than elsewhere. In addition, a center should be pedestrian-oriented (a connected network of sidewalks provide pedestrian access to all areas of the center). A review of a variety of planning studies and a collection of development characteristics from a range of south Jersey communities offer further guidance for center design. This information suggests that:

a. The size of a center should be based on a comfortable (1/4 mile) walking distance[9], which equates to a circle the area of which is 125 acres.

b. The State Plan Center Core Planning Guidelines suggest that Town centers have an area of .2 (128 acres) to .5 (320 acres) square miles.

c. Several communities within and in the vicinity of the Pinelands currently have a compact development form that serves as a "town center" model. Based on their lot size requirements, the residential densities within these communities range from 3.5 to 14 dwellings per acre with a mid-range density of 6 to 7 dwellings/acre[10]. These communities include:

- Haddonfield Borough: 6-8 dwellings/acre (du/a) in its "center"
- Princeton Borough: 7-14 du/a (low 3-5 du/a, high 20-30 du/a) in its "center"
- Hammonton: In the R2 district surrounding the downtown commercial area, the typical residential single-family detached lot is 12,500 s.f., or a density of 3.5 du/a.
- Pleasantville: lot sizes range from 5,550 to 7,500 s.f. for a density range of 7.9 to 5.8 du/a.
- Hamilton: along Main Street lot sizes range from 4,500 to 11,000 s.f., equating to densities of 9.7 to 4 du/a. Side street lot sizes range in size from 6,250 to 12,500 s.f. or 7.26 to 3.5 du/a.
- Vincentown (Southampton Twp): the median lot size is approximately 6,400 s.f. or 7 du/a.
- Egg Harbor City: residential lot sizes in the downtown are 6,000 s.f. or 7.26 du/a.
- Medford Village: ¼ acre lots are typical within the village, equating to a density of 4 du/a.

d. According to planning conducted by NJ Transit, residential densities of 7+ units/acre are needed to support local bus services[11].

It is important to note that creation of centers should not only be enabled in a municipal land use ordinance, but actively promoted. Form-based regulations, such as the Washington Township (Mercer County) land use code[12], help to enable the development of traditional mixed-use centers. The objective

[9] Rural By Design, Randall Arendt, The American Planning Association, Planners Press, 1994; Planning for Transit Friendly Land Use, A Handbook for New Jersey Communities NJ Transit, June 1994, pg 5

[10] This information was gathered through conversations with municipal planners and/or building and zoning officials

[11] Planning for Transit-Friendly Land Use, NJ Transit, June 1994, pg 14 [15-24 dua supports rail or other high capacity service; 7+ dua supports bus service; 1-6 dua supports cars, car-pools, van service]

[12] http://www.e-codes.generalcode.com/codebook_frameset.asp?t=tc&p=0755%2D142%2Ehtm&cn=924&n=[1][923]

would not merely be for a municipality to establish higher densities but also consider how they could most effectively be achieved.

3. Community character – It may not be appropriate to fulfill the preceding recommendations in towns where an overall residential density of 3 dwellings/acre might significantly and abruptly alter their pre-existing development character. If an area's land tenure pattern will not permit higher density development or its existing and pre-1979 development pattern is primarily rural in character and the area does not have access to sewer service, a uniform application of this overall residential density would not be appropriate. Nevertheless, more efficient land use, providing for some mix of densities while preserving the overall character of the area, should be achievable. In these cases, based on the assumption that up to 25% of such a community's land should be zoned at higher densities, the overall density should be reduced to 1.5 dwellings/acre (25% at 3 dwellings/acre + 75% at 1 dwelling/acre equates to 1.5 dwellings/acre). These communities should still be encouraged to establish centers. Communities that potentially fit these criteria include Shamong and Southampton.

Conclusion - Requested Housing Task Force Action

The purpose of the upcoming (October 12th) Housing Task Force meeting is to review and discuss the foregoing recommendations. If the Task Force concurs with these recommendations, in their current or modified form, they will become the Implementation Section of the Final Housing Task Force Report. The completed Report will then be submitted to the Pinelands Commission for its consideration.

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Memorandum

To: Members of the Housing Task Force

From: David Kutner, Director of Special Programs

Subject: Sustainable Use of Land – Analysis Continued

Date: December 18, 2006

During its October 12th meeting the Housing Task Force considered strategies to implement recommendations detailed in the Housing Task Force Report. These strategies addressed the issue of efficient use of land, focusing on three topics: (1) establishment of a minimum residential density applicable to all growth areas; (2) encouraging center-based design; and (3) identifying exceptions to these requirements where they may be warranted. During the meeting the Task Force reached the following preliminary conclusions:

- The Pinelands Commission should advocate that municipalities plan centers but that center design standards should vary based on different community types.
- In areas where there is no reasonable expectation that sewer service will be provided and where a rural development pattern has been well-established, a lower development expectation should be created but one that would still encourage centers at a small scale.
- In development areas with sewer service, a maximum lot size should be established to foster efficient use of land.

The Task Force also suggested that the initial recommendation of a residential density of 3 dwellings per acre may be too low to represent efficient use of land and that a higher number should be explored. In terms of sustainable use of land, a higher density is preferable because it results in less land-consumptive development, reduced infrastructure and service costs, and increased preservation of open space. But, based on the fairly extensive literature search conducted by staff there is no specific number that defines the point at which land use efficiency has been achieved. Economies of scale suggest that a density of 4 dwellings per acre may be more efficient than 3, but a density of 5 is more efficient than 4, and so on.

1. Does a gross density of 3 dwellings per acre represent efficient use of land?

Given that there appears to be no applicable Golden Mean; does a density of 3 dwellings per acre represent efficient use of land in the Pinelands? The answer to this question hinges on how the overall density prescription is set and how it will affect municipalities' zoning plans. The Task Force's general agreement that Haddonfield Borough exhibits an efficient development form is an illustration of this point. Based on current census data, the overall gross housing density for the entire area of Haddonfield is slightly less than 3 dwellings per acre yet the net residential density, particularly in the center of the Borough, reaches a level of at least 2 times the gross density. Similarly, the State plan recommends a gross residential density of >3 dwellings per acre in the PA2 area (suburban areas within sewer service areas). However, once the lands associated with non-residential uses (i.e. commercial, public open space, institutional, etc.) wetlands, roads, etc are discounted; the resulting net residential density would

be considerably greater than 3. Furthermore, if multifamily development is proposed, CAFRA standards would permit higher residential densities than 3 dwellings per acre[1].

Based on the foregoing, we explored the effect of setting density at 3 dwellings per acre on a gross rather than a net basis and then tested the effect of discounting two major variables - non-residential land and wetlands - to derive a ***net*** residential density figure on the uplands on which the housing would be constructed.

Our evaluation was based on the following two factors:

1) The amount of nonresidential (commercial, public, agriculture) land uses typically comprises approximately 25% of a municipality's total tax base, based on information from the NJ Department of Treasury's Division of Taxation for the 202 municipalities that comprise South Jersey[2]. Consequently, for the purpose of this analysis, it is assumed that 25% of the vacant developable land may be set aside for non-residential uses and therefore should be excluded from the calculation of vacant residential land.

2) Wetlands, on average, comprise 31% of the vacant lands in the Pinelands' RGAs, towns and villages within sewer service areas, based on NJDEP land use/land cover information updated to 2004[3].

Using these factors and a theoretical growth area of 1,000 acres, a series of tables was assembled to test gross densities in growth areas under scenarios with and without a mixed-use Center. For the purpose of this analysis, the area within a mixed-use Center had the following characteristics:

- Minimum zone density of 6 dwellings per acre
- Occupies 125 acres of vacant developable land within the growth area[4].

As noted above, the first step of the calculation was to exclude lands that would be associated with non-residential uses from the total "Theoretical Growth Area" to determine the number of "Gross Residential Acres". This area was then used to determine the "Maximum Zone Capacity" based on the formula *Gross Residential Acres x Overall Gross Density = Maximum Zone Capacity*. The next step was to develop a typical zone distribution that yielded the Maximum Zone Capacity, thereby resulting in an ***Overall Gross Density*** of 3 dwellings per acre (*please see the attached table entitled "Overall Gross Density @ 3 Dwellings per Acre"*). For comparison, a second series of tables was developed to illustrate the effect of an overall gross density of 4 dwellings per acre (*please see the attached table entitled "Overall Gross Density @ 4 Dwellings per Acre"*). Based on the input from the Task Force, the focus of this exercise was to determine whether one or both scenarios would achieve the gross density target while meeting the following *design goals*:

- Minimize/eliminate the possibility to zone large portions of the growth areas for low-density (i.e. 1 or less units/acre) development patterns
- Allow for a range of zone densities to preserve local-level zoning flexibility

Results

1. Overall Gross Density @ 3 dwellings per acre

[1] The CAFRA density of 3 dwellings per acre is an estimate and is based on the CAFRA impervious surface limitation of 30% applicable to State Planning Area 2. Pinelands Commission staff estimated that this extent of impervious coverage is roughly equivalent to coverage associated with a single family residential density of 3.

[2] See discussion on Overall Density (p.2, last paragraph) of the October 6, 2006 Sustainable Use of Land memo to the Task Force

[3] Data source: NJ Pinelands GIS Laboratory in collaboration with the NJ Department of Treasury, Office of Taxation, tax assessment information data (MOD IV)

[4] See possible guidelines for center design, paragraph 2, (p.3) of the October 6, 2006 Sustainable Use of Land memo to the Housing Task Force

a. Concept Alternative 1 - Without Centers: The table demonstrates that a concept can be devised that meets the design goals; however, it would be necessary to zone a majority of the area at the highest density within the zone. In contrast, it would only be possible to zone a small portion of the growth area for the lowest density in the range. With these characteristics, the Overall ***Gross*** Density results in an effective Overall ***Net*** Density of 4.35 dwellings per acre.

b. Concept Alternative 2 - With Centers: This table demonstrates that it is feasible to allow for an array of zone densities together with a mixed-use Center zone thereby meeting the design goals. Once again, it would stillbe necessary to zone a majority of the area at the higher densities within the range. However, even with a Center it was not possible to zone an extensive portion of the vacant residential land for low-density development.

2. Overall Gross Density @ 4 dwellings per acre

Concept Alternatives 3 and 4: The table reveals that it is feasible to assemble scenarios with and without a mixed-use Center zone while meeting the design goals. However, in order for the concepts to "work", a greater proportion of the Theoretical Growth Area would need to be zoned at the higher densities in the range. In addition, an Overall Gross Residential Density of 4 dwellings per acre is significantly higher than Haddonfield's overall gross residential density. Moreover, an effective Net Density of 5.8 dwellings per upland acre, applicable to the ***entire*** Pinelands growth areas, would be almost equivalent to the net density of Haddonfield's ***core*** area and it would be considerably higher than the prevailing Pinelands density prescriptions.

Density Concepts Tests Conclusions

An Overall Gross Residential Density of 3 dwellings per acre results in an effective Net Residential Density of **4.35 dwellings per acre**. Under this scenario, zone densities with and without mixed-use Centers are feasible and it would only be possible to zone a relatively small portion of the growth area for lower densities. Consequently, Overall Gross Residential Density could be set at 3 dwellings per acre, or alternatively expressed as a Net Residential Density of 4.35 dwellings per acre, and represent efficient use of land if a range of zone densities and centers are reflected in the local-level zoning plan.

2. How should density be arranged?

a. *Centers* – If Centers are voluntarily promoted the following incentives can be offered to encourage municipalities to enable them.
   1) Community design and ordinance preparation assistance could be provided
   2) Requirements for T&E surveys could be lessened and permitting procedures could be streamlined
   3) Lower density could be allowed elsewhere within the growth area
   4) Assistance from other state agencies could be targeted to Center creation

b. Maximum lot size/minimum density for any zone - Based on the density concepts tests it appears that the establishment of an overall ***gross*** density prescription of 3 dwellings per acre to a large extent obviates the concern about zoning excessive portions of vacant developable land for low density development.

c. Exceptions As noted in the opening paragraphs of this memo, during the October 12th Task Force meeting it was agreed that conditions do exist within Pinelands growth areas that warrant consideration for exception to the density prescriptions outlined above. It is suggested that these cases for exceptions be based on the following criteria

- If an area's existing and pre-1979 development pattern is primarily rural in character and the area does not have access to sewer service, the overall density should be reduced to an overall gross residential density of 1.5 dwellings per acre. These communities should still be encouraged to establish centers.

Examples of municipalities that meet the foregoing criteria are Southampton and Tabernacle.

3. Conclusion - Requested Housing Task Force Action

The purpose of the upcoming Housing Task Force meeting is to review the various test scenarios and select an overall density prescription (expressed as either a gross or net density) that you believe reflects the Task Force's recommendation regarding efficient use of land. This recommendation, together with the conclusions reached at the October 12th meeting, will become the Implementation Section of the Final Housing Task Force Report. The completed Report will then be submitted to the Pinelands Commission for its consideration.

Housing Demand Assessment
Density Concept Tests

Overall Gross Density @ 3 Dwellings per Acre

Theoretical Growth Area		
Growth Area	**Acres**	**Units**
Gross Vacant Land	1,000	
Non-Residential @ 25%	250	
Vacant Residential	750	
Wetlands @ 31%	233	
Net Developable Res	518	
Maximum Zone Capacity @ 3 du/a		2,250

Concept Alternative 1 - Without Centers

Zone	Gross Density (du/a)	% of Total Area	Gross Residential Acres	Upland Acres	Maximum Zone Capacity (units)	Effective Net Density (du/a)
1	1.5	10%	75	52	113	2.17
2	2.5	30%	225	155	563	3.62
3	3.5	60%	450	311	1,575	5.07
Center Zone	0	0%	0	0	0	0.00
		Total Acres	**750**	**518**		
				Maximum Zone Capacity	**2,250**	
					Overall Net Density (du/a)	**4.35**

Concept Alternative 2 - With Centers

Zone	Gross Density (du/a)	% of Total Area	Gross Residential Acres	Upland Acres	Maximum Zone Capacity (units)	Effective Net Density (du/a)
1	1.5	22%	161	111	242	2.17
2	2.5	49%	370	255	924	3.62
3	3.5	13%	94	65	328	5.07
Center Zone	6	17%	125	86	752	8.70
		Total Acres	**750**	**518**		
				Maximum Zone Capacity	**2,246**	
					Overall Net Density (du/a)	**4.34**

Housing Demand Assessment
Density Concept Tests

Overall Gross Density @ 4 Dwellings per Acre

Theoretical Growth Area		
Growth Area	**Acres**	**Units**
Gross Vacant Land	1,000	
Non-Residential @ 25%	250	
Vacant Residential	750	
Wetlands @ 31%	233	
Net Developable Res	518	
Maximum Zone Capacity @ 4 du/a		3,000

Concept Alternative 3 - Without Centers

Zone	Gross Density (du/a)	% of Total Area	Gross Residential Acres	Upland Acres	Maximum Zone Capacity (units)	Effective Net Density (du/a)
1	1.5	10%	75	52	113	2.17
2	2.5	14%	105	72	263	3.62
3	3.5	20%	150	104	525	5.07
4	5	56%	420	290	2,100	7.25
Center Zone	0	0%	0	0	0	0.00
		Total Acres	**750**	**518**		
				Maximum Zone Capacity	**3,000**	
					Overall Net Density (du/a)	**5.80**

Concept Alternative 4 - With Centers

Zone	Gross Density (du/a)	% of Total Area	Gross Residential Acres	Upland Acres	Maximum Zone Capacity (units)	Effective Net Density (du/a)
1	1.5	5%	40	27	60	2.17
2	2.5	19%	146	100	364	3.62
3	3.5	33%	248	171	866	5.07
4	5	26%	193	133	964	7.25
Center Zone	6	17%	125	86	747	8.70
		Total Acres	**750**	**518**		
				Maximum Zone Capacity	**3,000**	
					Overall Net Density (du/a)	**5.80**