

INTRODUCTION

The world we live in is dynamic, with its many facets having multiple interactions with each other, resulting in an almost infinite number of causes and effects. Therefore, no planning effort can be undertaken in a vacuum. Planning must be understood in the context of current and historical influences and events. New Jersey comprises 566 separate municipalities, twenty-one counties, and more than 600 school districts. This governing structure is highly fragmented and, in the most densely populated state in the nation, requires the most highly coordinated system of intergovernmental cooperation. The Strategic Growth Plan (SGP) for Sussex County is a reaction to the need for such cooperation between the twenty-four municipalities which make up the County, the County itself, and the State. But what has caused us to take this initiative now?

Today we have a much better understanding of the connections between our development patterns and our quality of life. If the purpose of work and study is to yield products, services and income through which we come to enjoy life and provide a measure of security to ourselves and our families, maximizing the return from our efforts and minimizing the costs of those efforts is rational behavior.

Planning is an attempt to impose predictability and a level of control over our lives. By its nature, it is a long term and wide angle perspective on events. Often it requires deferred gratification. This comes into conflict with the understandable wish to “have it all now” under the “buy now, pay later” economic banner.

Land use planning is not the answer to all of society’s ills; illiteracy, discrimination, poor health, etc. It can, however, set the stage for enhancing or degrading human interaction. Where we can set the stage to enhance interaction, the result is a stronger sense of community, a wider range of transportation options with the corresponding reduction in automobile dependency and cost, and greater efficiency in providing public health and safety services.

Sprawl, moving connected activities farther away from each other, reduces transportation options and exacts a number of costs, not all of which are quantifiable. The most directly measurable include the costs of maintaining a vehicle for commuting, overtaking highway capacity, increased air and water pollution from vehicular trips, greater expenditures for highway maintenance and expansion, monetary losses from motor vehicle accidents, augmented storm water runoff and reduction in aquifer recharge.

More difficult to quantify are the hours spent stuck in traffic, or, if not stuck, contending with the time required to get from origin to destination, avoiding accidents, coping with adverse weather conditions, construction and so on. The Sussex County quality of life for which we moved to the area should not require us to spend fifteen or more hours per week commuting to employment, to have no reasonable option to living beyond walking distance from the most basic shopping needs and to have so little time available for family activities that even our children live on a hard and fast schedule.

Again, changes in the social framework have a disproportionately great impact on our ability to function. Isolating ourselves through sprawl makes it harder to deal with the matters at hand.

Planning in New Jersey has changed greatly since the first zoning and planning enabling acts were adopted in 1928 and 1930. Since that time, and particularly since 1975 when the current Municipal Land Use Law (N.J.S.A. 40-55D-1 et seq.) was adopted, the importance of planning as a precondition of land use regulation has become more and more apparent.

Authority to plan and to regulate land use in the State is delegated to municipalities by the State legislature. This, in large part, is the basis of “Home Rule” whereby each of the 566 municipalities in the State has the authority to control what gets built and where.

New Jersey, however, is the most densely populated state in the USA with an *average* density of 1,100 persons per square mile. In more developed areas, the density is far higher. Consequently, the impact of decisions about land use in one municipality is far more quickly and strongly felt by neighboring municipalities than anywhere else. While the Municipal Land Use Law specifically authorizes municipalities to join together and create regional land use boards, this formal degree of cooperation has not been extensively used.

In order to address the issues facing Sussex County, and taking advantage of a grant from the State Planning Commission, the Board of Chosen Freeholders appointed a Strategic Growth Advisory Committee (SGAC), made up of seventeen members representing municipal government, business, agriculture, environmental and development groups. The SGAC has met at least once per month over the past four years. Members attended the numerous visioning meetings held County wide and have served on subcommittees working out details of the SGP. The hundreds of hours spent by these dedicated volunteers is a tribute to their concern for the County, its residents and its future.

The Plan is composed of a number of elements. Although there are no set guidelines for such a plan, this document will generally follow the format for a master plan set forth in the County Planning Enabling Act, specifically NJSA 40:27-2. This section provides, “The County Planning Board shall make and adopt a master plan for the physical development of the County. The Master Plan of a County, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the County Planning Board’s recommendations for the development of the territory covered by the Plan, and may include, among other things, the general location character and extent of streets or roads, viaducts, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the County.

The County Planning Board shall encourage the cooperation of the local municipalities within the County in any matters whatsoever which may concern the integrity of the County Master Plan and to advise the Board of Chosen Freeholders with respect to the formulation of development programs and budgets for capital expenditures.”

General Impediments to Rational Planning

Tax policy is the single greatest impediment to rational land use planning. New Jersey is among the five states that depend upon the property tax to fund 98 percent or more of its functions. As long as municipalities and counties need the property tax to operate, seeking ratable will be a significant priority. Unless some other revenue source is substituted, this will continue to cause development policies to emphasize near term superficial benefits and costs rather than an understanding of the complex dynamic of housing following jobs and the transportation and quality of life effects of that dynamic. If businesses continue to be located along road corridors rather than mass transit routes, and housing continues to be segregated from non-residential growth, we will further the unhealthy, time and resource consuming pattern of long single occupancy vehicle commutation and shopping trips.

Given that we cannot expect a change to the basic property tax system, all density transfer mechanisms, particularly those between jurisdictions, must provide that the money follow the development.

Part of this equation can be offset by developer exactions related to the impact of new development. The incremental school cost, expressed as cost per student in excess of the expected tax revenue from the construction plus some part of the anticipated capital cost of new facilities, busses, etc. should be added to the current pro rata share required of the developer.

An additional, highly deleterious result of the property tax mechanism in the State is that municipalities are forced to make land use decisions based on fiscal concerns which rarely offset the effects of the use. This has severely limited the options available to local government and has resulted in land development patterns which are inefficient and force the population of the State to move by privately owned automobile in order to gain access to goods and services.

The net result of this obstruction has been to create sprawl, with all municipalities ignoring the extraterritorial effects of development. From this came the impetus for adoption of the State Planning Act in 1985. The Act sets out the framework for a new approach to planning, planning on a regional scale. Not only must we all consider the effects of land use decisions on our neighbors but also on the State and on the larger region.

Development in New Jersey has traditionally followed improvements in transportation and mobility. Cities, once the focal point of nearly all non-farm employment, began to lose population as the workforce first made use of the train to live farther away from places of work. When the automobile began to be affordable for the general public, the road network was expanded and improved. No longer was it necessary for the workforce to live within walking or biking distance of employment or of the train station.

As the population found the freedom to stretch the connection between home and work, the federal interstate system, underwritten by the federal government, further loosened the connections to the cities, reducing the role of the railroads as the subsidy of the highway system favored over-the-road transport of goods and services as well as the passenger vehicle. Adding to the ability of the workforce to relocate was and is the federal subsidy of home ownership through the mortgage interest deduction from income for federal tax purposes.

This dissociation and cities' lack of authority to annex territory have led to the decline of the core city and the rise of the suburban and "edge" cities. Jobs, particularly the higher paying variety, have migrated from the original cities as has a large part of the population. This migration has consumed tens of thousands of acres of undeveloped land, much of it productive farmland. The way back to the city and its residual jobs has become increasingly congested and unattractive. This puts the older settlements in a disadvantaged position, reducing their attractiveness as home and workplace, disproportionately populated by those without the ability to move out. As a result of these influences, New Jersey has developed into a dispersed community, still tightly tied to the city economically and culturally, but with the vast majority of its citizens no longer calling the city "home".

In reaction to these historical trends, the State Legislature, through enactment of the New Jersey State Planning Act of 1982, declared that sound and integrated statewide planning was needed to "...conserve its natural resources, revitalize its urban centers, protect the quality of its environment, and provide needed housing and adequate public services at a reasonable cost while promoting beneficial economic growth, development and renewal..." (NJSA 52:18A-196 et seq.).

This Strategic Growth Plan demonstrates Sussex County's commitment to overcoming the obstacles to rational, planned growth. The title alone gives some idea of the obstacles to be overcome. Growth must be encouraged as it is the engine that drives the economy, and generates the funds to "provide needed housing and adequate public services" At the same time, we are to "conserve natural resources, revitalize the state's urban centers, and protect the environment".

In Sussex we have followed this expensive inefficient form of development along our State and County highways. The same low density disconnected auto dependent pattern costs citizen and employers huge amounts of time lost, unrealistic maintenance requirements, etc.

The County itself has no power to alter the pattern. Rather, this plan is prepared in order to inform and coordinate state, county and municipal efforts. There the County acts as an aide to Communication and as a link between State and municipal agencies.

These efforts are critical in halting the erosion of our quality of life.

How are these seemingly conflicting objectives to be reconciled, in the face of significant outside forces of continuing dispersal? By developing a plan that brings with it the expectation that it can operate in the real world with only minimal constant government manipulation. The key element of the Plan is the Center, the preferred development form urged by the State Planning Commission. These should be attractive for economic and personal reasons such that the individual decisions by employers and residents contribute to a reversal of sprawl rather than its continuation.

In today's complexly interrelated society, no Center can be expected to function as cities did in the past. The evolution of the communications network, out-migration of manufacturing employment and the transportation network in place, require that the roles of the various kinds of centers be taken into consideration.

What should a Center be? What is its function? In its larger configuration, it is a place where a sufficient concentration of population and interconnections exists to support cultural facilities such as museums, art centers, and universities. Lacking the economic base and facing huge service requirements, major public subsidies now carry the cities' costs. Absent some huge cultural reorientation, this will continue to be necessary for the foreseeable future.

Moving out from the core, we are presented with less dense, automobile dependent suburbs. The Route 1, Routes 80/287, Route 78, NJ Turnpike and Garden State Parkway corridors are now the focus of employment. None of these are located in Sussex County.

Quality of Life

What are the elements that make up our "quality of life"? Some are obvious such as clean air. Our ability to ensure this is mostly outside any local control. Impaired air quality is generally the result of out-of-County sources, isolated high volume traffic generators, and rush hour highway concentrations.

Clean water is also part of the Sussex County character. Here, the Strategic Growth Advisory Committee, Planning Board, and Board of Chosen Freeholders can review DEP regulations and basis for same. Particular focus should be on water quality, recharge, overall watershed management, soil erosion, protection of natural resources, threatened and endangered species and other indicator species habitat.

In order that more members of the population understand and act to support the quality of life, the County and other agencies should provide educational material and forums for discussion to explain the rationale and methods (e.g. model ordinances) for maintenance of the County character. In the realm of transportation, the free flow of traffic, open tree and stone row lined country roads leading to and from identifiable villages and towns are elements to be conserved.

No area can be considered complete or expect to retain long-term viability without an economic base. For Sussex County to prosper, employment and services must be readily available. This plan and subsequent efforts should identify and market County strengths. Reports such as the Sussex 2000 study and the Economic Development Strategic Plan, should be updated and actively implemented. This process continues with the Vision 2020 Plan currently nearing completion.

During the extensive Visioning meetings held around the County, many of those asked indicated that rest, relaxation, and recreation are integral elements of the Sussex County experience. Development is generally low intensity, the roadways, although sometimes congested, are generally free flowing, large and small scale recreation facilities are distributed across the entire County. These should be emphasized and expanded, through cooperative efforts between business and government to all who live in and visit the County. A sense of open space and existing, scenic vistas must be retained both in public (parks) and private (preserved farmland) ownership.

Efficient provision of community services, e.g. public works, public health and safety, are essential to maintenance of the quality of life in the County. In connection with this, the means by which activities can be funded other than by the property tax must be identified and implemented. The critical issue is the economic viability of the County and its constituent municipalities.

Variations in Municipal Goals

Although the County's objectives include balancing service demand with non-residential growth, some municipalities do not want to encourage growth. The analysis and goals discussion in the SGP as a regional plan makes provision for disparate municipal goals. Development will not be evenly spread throughout the region and will recognize each municipality's efforts to plan for their community. Further, many municipalities, presented with a theoretical "build-out" figure may wish to reduce this level of development once the available resource base, realistic development expectations, external impact of traffic, loss of scenic values, wildlife habitat, and other attractive attributes of the area are considered. Build-out calculations provided in this plan will be revised once the Highlands Regional Master Plan is completed, adopted and submitted for Plan Endorsement to the State Planning Commission. Whatever the reasoning, the final agreed upon development scheme will set the future population and economic boundaries.

In addition to the basic developable areas and conventional zoning techniques, municipalities may now return to using the "constraints zoning" technique. This approach, together with transfer of development credits or rights, cluster design, and other standard methods of directing development, will enable those responsible for development action to achieve better results than has been the case in the past.

Development vocabulary should be clearly set out so as to avoid the creation of "placeless" places. This is particularly important in multifamily and corporate commercial development. The sea of "townhouses" not in a town and the repetition of context free corporate logos make all places look alike. A large part of this strategic planning effort is to retain the individual character of each municipality, and by extension, the County. To do so will require local decision makers to resist the common assertion by developers that "corporate policy requires this design, color scheme, sign size, parking arrangement, etc." Strong guidance by local planning and zoning boards will overcome the urge to fall back on the familiar development patterns and styles, otherwise known as "sprawl".

THE VISIONING PROCESS

At the beginning of the Strategic Growth process, the Committee developed the following Visioning Statement: “The visioning objective is to establish a County wide framework for guiding future growth and protecting environmentally sensitive features that constitute the unique physical characteristics and the rural, suburban and lake community development that, in combination, establish the overall character and quality of life in Sussex County.” There were four steps outlined that needed to be addressed in this process:

1. Where are we now?
2. Where are we going?
3. Where do we want to be?
4. How do we get there?

The first step in the Visioning process was to ascertain where we are now. This was done by compiling any and all mapped and statistical data available of the current development capabilities of communities in Sussex County. GIS information on land use, zoning, environmental and existing development was gathered. Secondly was the discussion by the Committee on where we are going. This entailed an analysis of likely development trends in Sussex County based on the physical development potential and current zoning and development regulations of its communities. Discussion included likely build-out areas and lands for potential protection for open space and/or farmland preservation. Third in the Visioning process was “where do we want to be.” This was a compilation of visioning goal statements developed by the Committee. They included the following (which are not in any particular order of importance):

1. Maintain the quality of life in Sussex County.
2. Encourage protection of agricultural production areas
3. Protection of private property rights
4. Preserve environmentally sensitive areas
5. Maintain and enhance surface and groundwater quality/water quantity
6. Direct future growth into areas which can support and sustain proposed development uses, intensity and economic development opportunities.

Last in the Visioning steps was “How do you get there.” This step established strategies to implement the proposed County Visions from step 3. The strategies are as follows:

1. Protect areas of steep slopes and viewsheds. In areas with steep slopes of 35% or greater, recommend and encourage low density “mountain conservation” development of 1 dwelling unit per 10 acres.
2. Establish and maintain a 150 foot buffer along all stream segments mapped by The NJDEP (75 feet on either side of stream).
3. Recommend minimum lot areas for all new septic systems based on NJDEP Surface Water Quality Standards.
4. Support farmland preservation efforts and right to farm programs.
5. Encourage downtown and highway corridor revitalization while simultaneously encouraging future growth in areas which do not destroy environmentally sensitive areas of the County.

6. Channel future growth of high density residential development and high intensity non-residential development into existing and future sewer service areas.
7. Support the collaborative effort of Federal, State and Municipal agencies in setting open space priorities in the County.

From this came the Strategic Growth Visioning process. The Sussex County Strategic Growth Plan rests on a shared vision of the County and its' future. Between June 13, 2002 – July 29, 2002 and then again from May 6 – June 4, 2003, the Strategic Growth Committee and County Staff made presentations to all Sussex County municipalities. When added to the meeting time spent by members of the Strategic Growth Advisory Committee, a total of 1520 hours have been donated by these committed volunteers. The first series of a dozen meetings during 2002 were open public meetings in which over 600 residents participated. The presentation included background on the process to date, a description of the initial build-out analysis and how it could potentially affect the community, and major issues that the Plan would ultimately focus on. Many of these issues were presented in a cursory manner. The process proved valuable in gathering comments and insights on these topics that would be further discussed in the next part of the Visioning process.

During the spring of 2003, the Visioning process continued, albeit in a smaller forum. The Committee and Staff brought a list of regional topics that had surfaced in the initial process to municipal governing bodies, and zoning, planning and land use boards for their input. A list of County-wide policies was presented including: Mobility/Transportation, Land Use, Agriculture, Open Space/Recreation, Environmental, Residential/Affordable Housing, Design and Aesthetics, Economic, Utilities and Historic and Cultural Preservation. The discussion was steered from the earlier municipal context to the more broad brushed regional design. The Strategic Growth document outline was also discussed which will include an Executive Summary, Introduction and background on the process, Existing conditions and Trends, the Future vision, and an Action Plan. The Landscape concept was introduced and defined during these meetings. The initial nine landscapes were modified as input was received.

The Visioning process, in and of itself, was extremely helpful to the Committee in focusing major concerns on a municipal and regional level. The need to highlight the aforementioned policies became evident after the first Visioning meetings. Transportation was heard as the most critical issue in our County. This was followed by the preservation of municipal and County character and quality of life issues. Municipalities showed a strong interest in the process and the end product. It was **heavily** emphasized at all meetings that this Plan needed to present a unified front on all issues when submitted to Trenton for Plan Endorsement. It would then act as a template for municipal center designation and plan endorsement in Sussex County.

The forms used to gain the public responses and the summary of the responses are included in the Appendix.

LANDSCAPES

A key element in the SGP is the landscape. This is defined as an area which is intuitively understood and recognized. In other words, when you're in it you know it without the need for explanatory signs. The landscapes (Exhibit 1) which have been defined for Sussex County are the:

- Rural/Agricultural Landscape
- Centers Landscape
- Parklands and Private Wildlife Management Area Landscape
- Job Creation Centers Landscape
- Lake Communities Landscape

Each of these has a well-defined character, setting it off from the others. All activities in the County may be understood with reference to one or more of these landscapes.

The overall land areas of Landscape in Sussex County are:

Parks/Public Water Supply Lands	111,981 acres
Job Creation Centers	335 acres
Lake Communities	17,730 acres
Towns/Villages/Hamlets	38,800 acres
Rural/Agricultural	175,106 acres

Landscape Characteristics

Without going into extensive detail since they are self-defining, the characteristics of the landscapes are as follows:

- Rural/Agricultural Landscape – Areas of low density residential development, active and fallow farmlands and small commercial service groupings (often configured as strips along highway frontages), natural resource development (quarries), golf courses, and ski areas. Large areas of land are preserved as agricultural properties or open space. The road network is generally two-lane County and older municipal streets with scattered direct access to homes and businesses. There is a combined sense of openness and human presence.
- Centers Landscape – These are places, many of which have existed for two hundred or more years. As economic events have altered the desirability of these settlements, for good or for ill, some have grown, others have diminished. In addition to these, new centers have sprung up or are planned in response to economic demand and facilitated by transportation improvements. They permit and encourage pedestrian access to homes and businesses. They are places where the bus stops and where people congregate. They are the focus of cultural and physical infrastructure (colleges, libraries, museums, municipal facilities and central water and sewer). Development in centers is relatively dense and residential and non-residential uses are mixed by design. They are communities with neighborhoods.

EXHIBIT 1
LANDSCAPES



Rural/Ag Landscape (Cosh Farm) © Donna M. Traylor



Center Landscape (Downtown Newton) © [Donna M. Traylor](#)



Parklands Landscape (High Point State Park) [© Donna M. Traylor](#)



Job Creation Landscape (Bon Chef Building) [© Donna M. Traylor](#)



Lake Community Landscape (Cranberry Lake) [© Donna M. Traylor](#)

Parklands and Wildlife Management Area Landscape – Large portions of Sussex County are permanently set aside as public/conservation open space. Included are the Delaware Water Gap National Recreation Area (DWGNRA), State Parks and Forests for example, High Point and Stokes, Wildlife Refuges, e.g., Wallkill. Accounting for more than one-third of the total County land area, they are expansive, with minimal disturbance and are used for camping, hunting, hiking, wildlife appreciation and other low intensity activities. They are home to threatened and endangered species of plants and animals, pristine streams, and are a place isolated from the fast pace of daily living.

Job Creation Centers Landscape – The Job Creation Centers (Commerce Park in Sparta, North Church Industrial Park in Hardyston) are the antithesis and balance to the Parklands landscape. Located along major highways, these are the focus of industrial development and serve as employment centers for relatively intense land uses. These are characterized by substantial truck traffic, larger buildings, and cater to wholesale markets. There are few retail and service businesses oriented to the general public in these centers. They serve to segregate important employment opportunities from more residentially developed areas. In the context of the SDRP, these are identified as Nodes.

Lake Community Landscape – Sussex County developed as an agricultural and summer recreational region. The lake communities that dot the landscape began as summer retreats, focused upon a lake or lakes, accessible via train with limited provision for the automobile. Later communities catered to vehicular traffic as the railroads were dismantled. However, they have retained their small lot, small building character. As access improved (I-80) and housing prices increased in the inner ring suburbs, more and more of the lake cottages were converted to

year round residences. Areas which once saw limited impact from use now must support higher waster disposal loads, traffic volumes, and substantial increases in building size without a corresponding increase in lot areas or improvements to service infrastructure.

Reorientation of Development Patterns and Landowner Equity

Sprawl is an overused term to describe development. Not every area needs to be developed in “compact forms” or as a “center”. In many areas, scattered, low density development has a minimal impact on the resource base, requires little in the way of services, and is an acceptable way to live in the “country”. This low intensity, low impact development is consistent with the overall objectives of this plan. There are “safe” densities which do not affect surface and ground water quality, or require extensive road networks. The State Residential Site Improvement Standards provide for relatively narrow rural roads where traffic loads are light.

Overall public policy has changed to place greater emphasis on preservation and rehabilitation of the resource base, particularly ground and surface waters, largely as a result of a more comprehensive understanding of the effects of development on the immediate and wider region. This requires that overall development patterns, previously thought to be acceptable, be abandoned and a new, compact form of development become the primary approach.

However, simply down zoning large areas of the County raises the issue of landowner equity. Many owners of land, particularly traditional farmers, have been stewards of the land for generations. Further, as a business, agricultural operators regularly borrow money for equipment and supplies. The collateral for this borrowing is the land at its developable value. A reduction in land value through down-zoning, reduces the ability of a farmer to operate. This would appear to be in direct opposition to perhaps the most important objective in New Jersey land use, the retention of agriculture as a viable industry.

Further, if the public good requires a radical change in development densities and layout, we cannot simply take land equity through down zoning some areas and confer unearned benefits to those who hold land in existing or proposed centers. This windfall and wipeout effect is common from standard rezoning schemes. The most interesting method available to regulators is transfer of development rights or credits (TDR/TDC). This technique would, if implemented by municipalities, permit the transfer of development potential from one parcel of land in the environs to another in a center.

As envisioned in this Plan, densities in the environs would be set, based on the nitrate dilution model discussed above, as it is unlikely that there would be central waste treatment facilities available. Of the density permitted, only one-half would be allowed to actually be constructed. The remainder of the value of the land would be retained by the owner in the form of transferable density credits. These could be purchased from the landowner and used by a developer in a designated receiving area (center).

The effective density of new development in the environs would be, at most, one-half of the safe density as determined through the nitrate dilution model. The landowner would have the option of transferring more than the minimum one-half credits and could transfer all credit to a center.

In order for there to be a market for credits, development in a center must require the use of credits from the environs, thereby creating demand. In TDC both seller and buyer of credits must come together at the same time. With a TDR bank, a landowner may sell credits, much as development easements are sold to open space and farmland preservation programs. A central municipal or regional account could be created to which prospective developers would apply for purchase of credits. *This, along with reform of the property tax system as support for education, was one of the two major required State actions to permit rational and fair land use policy to evolve in New Jersey.*

Transfer of Development Rights is not new in New Jersey. It has been employed successfully in Burlington County, in the Town of Chesterfield. In New Jersey, it has only been used in Burlington County, as the Municipal Land Use Law set this county apart as an experiment. The State has recently enacted needed TDR legislation, permitting the use of this technique statewide. This opportunity should be explored as a useful tool.

Although new to Sussex County, the potential for balancing the public interest and private property rights through this technique makes it an essential part of the SGP. We do not suggest that all municipalities will want or need to use this. Municipal vision for development varies widely across the County. Even where no center is desired and/or where densities are at or below the maximum desired development density, a municipality may find TDC or TDR an excellent tool to retain large blocks of open space and/or farmland, at no cost to the taxpayer. For example, a municipality with residential densities in the rural agricultural landscape of six acres or less per home may wish to concentrate development on a particular parcel as the sending parcel may contain important natural or cultural resource elements which would be adversely affected by development of any kind. Additionally, greater flexibility of design may be afforded to the receiving parcel with more units or because of topography, location, tract shape, or other characteristic, it is better suited to development already meets the objective of one-half of three acres per unit actually built.

Landscape Goals and Objectives

For each of the landscapes within the County, specific goals and objectives have been developed, based on the public comments at the numerous visioning meetings held throughout the County between 2000 and 2002. At these meetings the public, Municipal Officials, Federal, State, County, and Municipal Board and Commission Members were asked to spell out their concerns, reasons for living and working in the County, and how they thought the character of the area could be preserved and the quality of life in Sussex County maintained. Using the landscape framework, those concerns and aspirations are outlined below.

Rural/Agricultural Landscape

- Minimize sprawl development through incentives for density transfer.
- Development in the environs should be restricted to not more than one-half that otherwise permitted through zoning. All or the remaining portion of the available development potential could be transferred to other lands located in a center. For example, if the land is zoned for one home per three acres, only one home per six acres could be actually developed on that tract. For a thirty acre tract of land, ten homes would be permitted

through zoning but only five could be built on the tract. The remaining five credits, or all ten, would have value as credits needed by developers wishing to build in an identified receiving area (center).

- In order for the credits to be in demand, rezoning in the receiving areas would have to be undertaken to lower the as-of-right densities while retaining desired densities achievable with purchased credits. For example, a center would have an as-of-right density of one home per three acres but, with sewer and water service, could allow up to twenty-five units per acre. The difference would become available through purchase of development rights from the environs.
- Where a developer agrees to provide additional open space through cluster development in either the environs or the center, the total yield would be determined by land divided by density after removal of areas of water bodies and wetlands, and excessive slopes. Where a cluster is not proposed, a qualifying map, taking into account all ordinance mandated design criteria, including slopes, setbacks from wetlands and water bodies would be required in order to determine lot yield and would yield fewer lots or units than would the cluster option.
- Once the cluster lot yield has been determined, the layout would have to respect ordinance limitations such as slopes and buffers but would result in a development whose density would be limited more by water supply, waste treatment and disposal technology than site constraints. If this approach were used on a sending tract and the municipal planning board found the proposal consistent with municipal objectives, the increase in unit count could be transferred via TDR. The financial incentive to sell development rights should not be diminished unless the tract is not suitable for cluster development.
- Locate development in areas least likely to have a negative effect on agricultural operations.
- Require development to provide a buffer when lands adjacent to farmland are being developed.
- Streamside protection is always appropriate.

Conservation and Preservation

The umbrella term “quality-of-life” is directly dependent on maintenance of the environmental integrity, as well as the economic vitality of the County.

The preservation and restoration of environmentally critical land areas should be considered as important a priority as the economic components of the County web. These areas contribute to clean water, clean air, wide open views, both wide ranging and protected species habitat, and nature based recreation. A particularly important initiative is the storm water and stream quality legislation and regulations that took effect in February, 2004. These rules will require land users to internalize some of the external clean-up costs of operating. They will also reduce the need to raise municipal and County property taxes to perform clean ups, although in

accommodating the impact of existing land users, retrofitting storm water facilities and their maintenance will require substantial public funding,

The NJDEP has issued a model for a Storm Water Management Plan, Storm Water Control Ordinance, and Stream Buffer Conservation Zone Ordinance. These provide the needed structure for the operation of the storm water and stream quality protection programs mandated by federal and state law. Significantly, enactment of a stream buffer conservation zone ordinance would allow a municipality to limit the width of the conservation zone to 150 feet in Category one watersheds and to 75 feet in the remainder.

As part of the removal of the Regional Recreation Landscape, specific policies should be developed, encouraging these uses in the Ag/Rural Landscape. Current uses of this type are primarily golf courses/driving ranges, the ski areas, Wild West City, Waterloo Village, Tomahawk Lake Park, commercial campgrounds (Tall Timbers, Panther Lake), summer camps, horseback riding facilities, Cardinals Stadium, and the Farm and Horse Show facility.

Development and operation of these uses results in a broad range of effects. Ski areas, for example require disturbance of steep slopes, creation of snow pack on those slopes and the eventual runoff as the snow melts. These areas are brightly lit, require substantial parking and generate significant traffic. With the short season available in New Jersey, year round activities are incorporated, including water slides, etc.

These uses are wholly consistent with the State Plan in that they are recreation oriented. They also tend to create jobs, albeit low paying. Golf courses have their own particular set of effects, notably high water use in the critical part of the year, introduction of pesticides, herbicides, and substantial habitat for nuisance species, such as geese. They may incorporate areas of relatively steep slopes, wetlands, streams, and the like. All these environmentally sensitive areas require careful attention during and after disturbance so as to minimize the potential for degradation. The ballpark and fair grounds, although limited in their environmental impact, bring substantial traffic congestion, with associated air quality degradation, increased fuel consumption and quality of life effects.

Although there could be future major recreation development that could produce a significant impact, the remainder of the uses noted above tend not to have a major impact as they are relatively small.

Within the Agricultural/Rural landscape, connections between residential areas, commercial services and recreation facilities are encouraged. In fact, they are essential components of the effort to reconnect the various facets of life in the County. Historically, these connections were roads, railroads, and the Morris Canal. Over time the railroads nearly disappeared, the Canal did, and County residents have been left with few connections other than the road network. With the decentralization of homes and businesses, even the traditional points of community interaction have been reduced to the post office (where there is one), and chance encounters at the supermarket. Restoring the local post office would create a natural point of neighborhood contact for many residents who otherwise have none.

Resource Development

The SDRP contemplates resource development in Planning Areas Four and Five. In Sussex County, this has taken the form of rock, sand and gravel extraction. These operations number more than twenty in Sussex County, ranging from the Cemex Quarry in Sparta, Andover and Lafayette and the Wimpy Minerals quarry in Sparta and Hopatcong to small gravel operations on an individual farm. These materials are critical components of roadway, homes, septic systems, and other fundamental elements of community development. These industries also come with substantial environmental impact, as they require large scale land disturbance, alteration of drainage patterns, major topographic modification and visual impact.

These industries may be operated in an environmentally responsible manner. Large scale quarrying operations tend to have wide ranging regional effects on water supply and water quality. There should be no contact with the ground water Figure or subsurface aquifer. Where this is unavoidable, all discharges of water should be pollutant free and returned to the aquifer.

Dust controls, limited lighting, restrictions on hours of operation, and defined truck routes should also be considered in order to minimize impact. Although most operations are multi-year or multi-decade in duration, reclamation of the site is essential. This may be accomplished in phases as the operation moves from one portion of the property to another.

Job Creation Centers

Job Creation Centers correspond to the “Node” as defined in the SDRP. The node appropriate to Sussex County is termed a “Commercial-Manufacturing Node. This is defined as; “a significant concentration of commercial, light manufacturing, or warehouse and distribution facilities and activities which are not located in a Center and are not organized in a Compact form but could meet performance standards for locating in a Center”. The commercial/industrial park facilities depicted as job creation centers fall well within this definition and are consistent with the SDRP. These typically benefit from highway access, lack of residential development, and access to rail service. These are not traditional centers as outlined in the SDRP but have an important role to play in the economic health and consequent quality of life in Sussex County.

These Centers should be located along or in close proximity to major highways (Routes 15, 23, 94, 206). Note that the Lackawanna Cutoff crosses Route 206 in Andover Borough but is inaccessible due to grades. Major industrial access from Roseville Road is not appropriate.

The best rail option is the proposed reactivation for commuter service of a portion of the New York Susquehanna and Western Railroad (NYS&W) which runs through Sparta, Franklin, Hamburg, Hardyston, and Vernon.

Commercial development in Sussex County has taken a number of forms. Most notable and inefficient are commercial strips along State and County highways. These strips tend not to have sufficient area for deliveries, often demanding that traffic on the highway be blocked to allow access for tractor-trailer deliveries. They are generally one story in height and not designed to permit a second floor. They occupy a substantial frontage on the road with minimal depth, an inefficient use of land. This inefficiency is exacerbated by the corresponding loss of access to the rear lands and creation of barriers to views of the countryside.

There are some Job Creation Centers, Commerce Park in Sparta and North Church Industrial Park in Hardyston, which have matured into a functional concentration of business and industry. Other proposed nodes are located in Sparta, Vernon and Lafayette as indicated on Exhibit 1, Landscapes.

Although these are set out as a separate landscape, they are relatively small elements within the larger, Agricultural/rural landscape. For this reason, these should follow design objectives which will allow them to blend in with the more extensive landscape.

Policies for these should focus on designs which are compatible with the overall objectives of balanced land use (economic) and retention of open/rural character.

Strip commercial development should be prohibited. Commercial and industrial development should be designed in depth from roadways, oriented to a central court, parking located at the rear and screened from adjacent uses unless common access ways are provided.

Direct access to major roadways should be discouraged. The function of higher order roads is compromised by curb cuts. This will be particularly evident where a State or County highway will function as a “Main Street”.

It is important to understand that the development patterns now being advocated, creating centers and concentrated development are not small town, USA. The effects of growth generally do not contribute to low traffic, quiet neighborhoods, etc. The benefits are that the regional agricultural impact as well as the visual and environmental effects of development will be reduced as the environs remain less developed.

Traditional Centers

Centers must:

Be ecologically accommodating, located in areas where soils/geology, topography, and hydrology can accommodate relatively dense development.

Provide a high level of mobility – be connected to all other Centers by roads and mass transit facilities. There must be a heavy emphasis on internal pedestrian/bikeways for alternatives to privately owned vehicles.

Be adequately separated from each other to function as independent entities. There should be a defined edge and intervening lands as understood, separate elements of the landscape.

Delineation of Growth Boundaries

Water and sewer infrastructure are the most effective means of establishing growth boundaries and timing of development. True growth management regulates both the location and sequencing of development and redevelopment. In relatively low density areas such as

Sussex County, new central water and sewer services are the keys to reorienting the patterns of development away from sprawl toward more compact forms.

Density is the key to establishing the critical mass for mass transit options and concurrent lessening of land consumption per unit of construction. This is not consistent with the thinking of much of the Sussex County population. How much of this is a function of lack of alternatives?

Is there an optimum population density for some sort of center? If so, what is it and how large an area is involved? For future development, the SDRP-recommended jobs to residential population ratio may be helpful. This ratio, according to the SDRP, may range from 0.5 to 1 up to 1 to 1. New jobs are calculated based on square footage of new construction. Appendix E of the proposed new COAH Rules sets forth the number of jobs created by type of use. For example, retail and school construction create one job per thousand square feet, office use creates three jobs and warehouse uses create one job per two thousand square feet. If 1000 sq. ft. of non-residential space equals one to three jobs and COAH requirements are partly a function of new jobs, big box uses will generate approximately 2 jobs per thousand square feet. From this, 15,000 square feet of new big box or other large scale commercial construction will require one new low or moderate income unit of housing.

The use of ratios and general descriptions of centers is only part of the answer. The internal design of a living place makes it a welcoming or an uncomfortable place to occupy. From experience with the “Center Designation” process, any center from the Regional Center through Hamlet provides an acceptable scale in Sussex County. However, the broad range of densities and areas also makes it difficult to suggest that one is a better model than another in any particular area. For that reason, among others, the design of a center should follow the functional direction of such publications as “Visions for a New American Dream” by Anton Nelessen of Rutgers University Bloustein School. A substantial excerpt from this work is found at Appendix C of this report.

Existing and Proposed Centers

Sussex County municipalities have been actively participating in the center designation process for many years. The first Center, the Regional Center of the Town of Newton was designated by the State Planning Commission in 1993. This Center, along with the numerous others, both proposed and designated, are more fully described in Appendix A. Sussex County leads the State with eleven designated centers. The expansion of the Newton Regional Center to incorporate some or all of the proposed Hampton Center South has been approved by the State Planning Commission.

In Sussex County, the centers concept has met with both acceptance and rejection. In established centers, relatively high development densities are not considered out of place. At the same time, a significant portion of the population came to Sussex to live in very low density, single family surroundings. For them, the idea of recreating the conditions they left finds little favor. However, as a result of the extensive visioning sessions, held Countywide as part of the strategic planning process, a wider set of expectations for centers has evolved. Some designated centers, such as Newton, Sparta, Hopatcong, Andover Borough, Stanhope, Vernon, Byram and Montague see additional growth within the center as a benefit yielding densities capable of

sustaining mass transit, pedestrian access to a diverse range of services and shopping opportunities, and a renewed sense of community. Others, such as Layton and Hainesville, in Sandyston, and Branchville look at the center process as a means to gain recognition of traditional, historic centers, and assistance in maintaining their important cultural connections between the past and the future.

Of the center petitions which have not been acted upon, Green (Greendell) is another where modest growth is anticipated. In the event the Lackawanna Cut-off is restored to service, this may well change and a transit village could be created. Hampton North, Frankford (Ross' Corner), and the Tri-State Village (Montague) Centers are either greenfields proposals or would expand the range of opportunities available. The existing Boroughs of Ogdensburg, Hamburg, Franklin, and Sussex have varying degrees of potential for accepting new development, based primarily on whether or not waste treatment facilities are available. While these have not been formally designated as centers, their historic character and function is, in and of itself, sufficient to include them as important centers in the County.

In addition to the Centers for which petitions have been prepared and submitted, there are existing functional Centers such as Sussex Borough, Greendell, Lafayette Center, as well as Stillwater, Swartswood, and Middleville Villages in Stillwater Township. Even though they have not been designated, they and others are identified in the SDRP. Centers, whether designated as receiving areas or not, are the future of nearly all prospective development in Sussex County. Using the TDR model, carrying capacity analysis, and careful programming of water, sewer, and transportation infrastructure, the anticipated build-out in the County can and must be reoriented to compact hamlets, towns, and villages where other than very low (less than one home or 2000 square feet of non-residential space constructed per six or more acres) density development is to occur. In some instances, densities as low as one home per ten or twelve acres may be justified where ground water quality standards of two milligrams per liter of nitrate are followed. We have performed an analysis of the lands not encumbered by the environmental constraints of steep slopes, wetlands, water bodies, transition areas and buffers (including the new Category One stream buffers) which are considered to be available for development. This, coupled with the zoning in place as of the date of this report, and designated sewer service areas yields a potential build-out for the County, by municipality as indicated in Appendix C.

Parklands and Wildlife Management Areas

This landscape is both exempt from development and a source of recreation opportunities. It is second in extent in the County, occupying approximately one-third of the total land area.

These lands have a number of important functions. These include:

- Reduction of land available for costly development.
- Provide opportunities for eco-tourism
- Provide greenway connectors between Centers, municipalities, and large blocks of open space where alternative methods of transportation can be safely used.
- Protection of environmentally critical areas such as steep slopes, significant aquifer recharge areas, surface water bodies, wildlife habitat
- Aesthetics – open landscape, forested slope and ridge views.
- Low impact recreation opportunities along with peace and quiet.

Lake Communities

The analysis performed relative to the rural/agricultural landscape also provides an insight into the effects on the environment caused by lake communities. As our current information and understanding of the resource base was not available at the time the communities were developed, and they generally were developed for seasonal use, they tend to be developed at far higher densities than the resource base can be expected to sustain.

For reference, there are more than 1200 lakes and ponds within the State of New Jersey. Of that number approximately 200 lakes are more widely known and are defined as either public (approximately 35%) or private (approximately 65%). The large majority of the lakes and ponds within the State are unnamed and range in size from as small as 0.2 acres to more than 30 acres. Of the 200 named lakes, approximately 40% are located in Sussex County; approximately 18% of Sussex County's present population of 150,000 (1st quarter 2004) reside within these lake communities.

As a result of small lots and present density levels, the impact on the environment has been accelerated eutrophication of the lakes, failure and pollution of individual wells, and failing septic systems, which, due to lack of available lot area, prove difficult and costly to reconstruct using current standards. Emerging septic technologies that offer higher pollutant and pathogen reduction as compared with conventional designs should prove helpful to lake communities.

The New Jersey Department of Environmental Protection (NJDEP) classifies a lake as "eutrophic" (characterized by excessive blooms of blue/green algae, depleted oxygen levels, and excessive nutrient levels) if one or more of the following conditions exist:

1. The lake's total phosphorous concentration exceeds 0.02 parts per million (winter mean; lake water quality attainment is considered met at phosphorous levels at or below 0.05 parts per million)
2. Chlorophyll "a" concentration is over 500 parts per million (summer) , transparency is less than 1.5 meters (summer) or
3. Excessive macrophyte populations or sedimentation is impairing the use of the water.

Public lakes are monitored through the Clean Lakes Program conducted by the NJDEP in cooperation with local health agencies responsible for assessing lake-bathing beaches. When sampling results were extrapolated to all public lakes, results of the Clean Lakes Program showed that more than 95% of the lakes would be classified eutrophic under the guidelines. The water quality of private lakes is generally better monitored, treated and maintained than is the case at public lakes. However, even under these conditions, most private lakes would be classified as eutrophic.

Whether a lake is public or private, a lake community is a valuable asset to its respective township, borough, or town and County and its specialized needs require the support of the larger community and its governing bodies. One of the major concerns of every lake community is the quality of their lake water. In general, the quality of the water can be adversely impacted by a number of factors, e.g., the degree of development surrounding the lake (further exacerbated

by septic systems), the relatively shallow depth of most lakes, undirected and untreated storm water runoff (a major source of non-point pollution), and upstream development, etc. In turn, a degradation of water quality exerts a negative impact on quality of life and property values within the communities. In order to effectively address these issues, lake associations and communities must allocate considerable attention and dollars to restore and maintain the quality of their lakes.

Lake communities within Sussex County are recognized as vital community stake holders with specific needs and desires not only for the betterment of their individual lake communities but also that of their municipalities and the County.

The Highlands

Although the Highlands is not considered a Landscape – it affects parts of all the landscapes identified in this plan, it, corresponding to the hilly, granite and gneiss region of the eastern third of the County, has been singled out by the State as a region of significant importance. While the overall character of the area defines it, its principal importance in the state scheme is as a source of water supply for approximately one-half of the population of New Jersey.

On September 19, 2003, Governor James E. McGreevey signed Executive Order No. 70 creating the Highlands Task Force and charging it with making recommendations to preserve the natural resources of, and enhance the quality of life in, the Highlands region. In particular, the Task Force was charged with examining the following topics:

- Protection of water quality, drinking water supplies, wetlands, critical plant and wildlife habitat, vegetated stream corridors, and contiguous forests;
- Identification of methods to protect and preserve open space and natural resources of the Highlands region;
- Identification of methods to enhance farmland preservation and support the agriculture industry in the Highlands region;
- Identification of methods to promote historic, cultural, scenic and recreational resource opportunities that preserve the natural features of the Highlands region; and
- Provision of smart-growth opportunities, including economic development and redevelopment in the Highlands region through regional planning, including coordination of transportation infrastructure investments and administrative agency activities, consistent with the State Development and Redevelopment Plan.

The New Jersey Highlands is a 1,250 square-mile area that stretches across the northwestern part of the State. The Highlands is noted for its rugged hills, lush forests, pristine streams and lakes, and large, undeveloped scenic lands. The region extends from Phillipsburg in the Southwest to Mahwah in the Northeast. It lies within portions of seven counties (Hunterdon, Somerset, Sussex, Warren, Morris, Passaic and Bergen) and 88 municipalities. (Exhibit 2).

The Highlands is a region of abundant natural, historical and cultural resources. The water resources of the Highlands have long been recognized as the Highlands' most valuable resource (U.S. Forest Service Report 2002). Over half of New Jerseyans get their drinking water from the Highlands. The municipalities in the Highlands derive 100% of their water from the Highlands. Outside the Highlands, more than 900,000 people in urban areas such as Newark and Jersey City get their water from the Highlands as do more than 800,000 people in Somerset, Mercer, Middlesex and Union Counties. Overall, drinking water sources in the Highlands yield almost 400 million gallons per day.

In addition to drinking water, there are a number of other important resources in the Highlands. In fact, the Highlands has the greatest diversity of natural resources of any region of the State, with the U.S. Forest Service classifying 70% of its lands as environmentally sensitive. The Highlands region has 370,000 acres of forested land. Much of these forests remain in large, unfragmented pieces, some exceeding 5,000 acres in size. The area has tremendous biodiversity. Its extensive forests, wetlands and streams harbor more than 30 of the State's threatened and endangered species. The Highlands -- with almost 175,000 acres of preserved open space -- provide fresh air, open space and recreation for all New Jerseyans and for 20 million visitors throughout the metropolitan New York area. There are more than 92,000 acres of agricultural lands in the Highlands, including 9,550 acres that have been permanently preserved in the Farmland Preservation program. The Highlands also contains some of the State's most valuable historical and cultural sites, including sites from the Revolutionary War, New Jersey's early industrial age and the Native American era. All of these resources provide an unsurpassed quality of life in the region. Due to the unique significance of the Highlands region, the area has been designated a Special Resource Area in the State Development and Redevelopment Plan and an area of national significance by the U.S. Forest Service.

New Jersey's Highlands region provides significant environmental, economic and recreational benefits to the state. It is also an area at risk – with so many competing uses and issues that the very qualities that make the Highlands a unique area are under threat. Its natural resources are threatened by current trends in population growth, construction and sprawl. Population growth is increasing in the Highlands at a rate nearly 50% faster than the Statewide rate. Recent land use changes document an increase in large-lot residential subdivisions, increased deforestation and forest fragmentation, and decreased number of large working farms.

The Highlands is increasingly at risk of being broken up by sprawl. Within the five-year period between 1995 and 2000, the Highlands lost 17,000 acres of forest and 8,000 acres of farmland to development. As a result of its location within the broad New York Metropolitan Area, growth pressures continue in the region with the trend for land consumption expected to average 3,000 acres every year. The Highlands' natural resources are largely controlled by thousands of private landowners and 88 municipalities' individual land use and planning systems. A regional approach for Highlands regional planning does not currently exist.

Comprising over 1,250 square miles running from the New York border to the Delaware River, the rapidly developing region includes part or all of 88 municipalities in seven counties, with a total municipal population of more than 800,000 people. More than 20,000 businesses are located in the Highlands' municipalities, employing over 350,000 people, or almost nine percent

of the total payroll employment in New Jersey. The region is also home to valuable farmland and a thriving agricultural sector.

Thus, in developing any regional planning or preservation efforts that try to save the Highlands, it is important to examine the historic, recreational and natural resources and the business network that define the Highlands.



Highlands Landscape (View toward the Highlands) © [Donna M. Traylor](#)

EXHIBIT 2
THE HIGHLANDS

Water

The Highlands are first and foremost a significant source of drinking water for the State, both for residents in the area and for hundreds of thousands of residents outside the region. The majority of the State's reservoirs are located in the Highlands. In addition, the water resources of the Highlands provide natural benefits to aquatic communities and the ecosystems dependent on a steady source of good quality water.

For residents outside the Highlands, the effects of unbridled growth will also be evident. Several reservoir systems within the Highlands serve communities outside the Highlands. For example, the City of Newark has a series of six reservoirs in the Pequannock system that supply the city with much of its water. The North Jersey District Water Supply Commission uses a system of reservoirs, including the 30 billion gallon Wanaque Reservoir (the State's second largest) and the 7 billion gallon Monksville Reservoir, to supply a quarter of the State's population. Some of those communities include Bayonne, Bloomfield, Cedar Grove, Clifton, Elizabeth, Elmwood Park, Fairlawn, Fairfield, Garfield, Glen Ridge, Haledon, Harrison, Hawthorne, Kearny, Lincoln Park, Little Falls, Lodi, Montclair, Newark, North Arlington, North Caldwell, Nutley, Passaic, Paterson, Ringwood, Totowa, Upper Saddle River, Verona, Wallington, Wayne, West Orange and West Paterson. Jersey City's two reservoirs (Splitrock and Boonton) are also Highlands' reservoirs serving northeastern New Jersey. Central New Jersey is also dependent on the Highlands, with the New Jersey Water Supply Authority's Round Valley and Spruce Run Reservoirs (the largest and third largest reservoirs in New Jersey) being in Highlands' municipalities.

With all these developments and increased demands for water from outside the Highlands, local stream and water systems in the Highlands are under increasing strain. The current system of water transfers from New Jersey's reservoirs in the Highlands results in an average stream flow loss of more than 200 million gallons of water a day (MGD) during low rainfall periods. On top of this transfer of water out of the region, Highlands' water systems present development within the Highlands helps to diminish local stream flow by an estimated 35 MGD.

Geology, Topography and Precipitation

The region's Precambrian aquifers do not generally produce large yields of water, except in cases where wells are hydraulically connected to streams or where wells intercept major fault zones. Due to the natural limits of the ground water supply, the New Jersey Department of Environmental Protection (DEP) has had to place constraints on new wells in some areas that have been experiencing significant development over the last decade. The Highlands does have some good aquifers (e.g., glacial sediments in buried river valleys, and limestone formations in valley areas) but many of these are heavily used for local water supply purposes.

The Highlands' topography consists of hilly uplands dissected by major streams. Due to the higher slopes and the thin soils of the region, stream flow changes markedly depending on rainfall patterns. Average annual precipitation is 50 inches; however, as little as 30 inches of rainfall may occur during extreme drought.

Surface and Ground Water

There are several major watersheds either fully within or comprising large land areas within the region, including the Musconetcong, Pequest, Passaic/Ramapo, Upper Raritan and Wallkill river basins. In addition, some of the Hackensack River watershed is in southern New York State before it flows into Bergen County. Major surface waters in the Highlands total over 30,000 acres; wetlands total over 80,000 acres. While the geological characteristics of the region place constraints on ground water withdrawals, these same characteristics are conducive to large amounts of water running off into the Highlands' reservoirs.

The Highlands is home to the majority of New Jersey's reservoirs. These include the North Jersey District Water Supply Commission's Wanaque/Monksville Reservoirs; the NJ Water Supply Authority's Round Valley/Spruce Run Reservoirs; Jersey City's Boonton/Split Rock Reservoirs; and the City of Newark's six Pequannock reservoirs. Together these systems possess approximately 231 billion gallons of storage capacity that provides a combined safe yield of 439 million gallons of water a day (MGD).¹ In addition, the Oradell Reservoir in the Hackensack River watershed, while out of the Highlands, benefits from Highlands' supplies during droughts through a connection with North Jersey District Water Supply Commission.

These reservoirs have been created in the region over a century, primarily to preclude the water supplies for urbanized areas of the state being affected by human activities. Indeed, the City of Newark acquired much of its reservoir system's watershed to protect the drinking water supply. The region's reservoirs are of great importance in ensuring an adequate drinking water supply, especially during drought. These reservoirs provide drinking water to 2.1 million people in the northeastern and central portions of New Jersey.

Using information from the 1996 NJ Statewide Water Supply Plan, we estimate that the Highlands region also possesses approximately 150 MGD of ground water, most of which is dedicated to supplies for Highlands' municipalities. Combined with the reservoir supply, the Highlands overall has a water supply of approximately 589 MGD.

Water Demand and Uses

There are nearly 1,100 withdrawals that have water allocations of various sizes throughout the region, of which approximately 700 are potable water supply wells.

A total of approximately 16 billion gallons annually or about 416 MGD of water are withdrawn from the Highlands region. Overall water withdrawals in the region have not significantly increased during the previous decade. However, withdrawals do substantially increase during dry years, as experienced during the droughts of 1990-1991, 1995 and 1998-1999.

Of the 416 MGD diverted in the Highlands, approximately 100 MGD is withdrawn from ground water and 316 MGD from surface water (see Figure 1 below). The largest withdrawals are for potable water supply (about 290 MGD), followed by power generation (87 MGD),

¹ Safe yield is the amount of water that can be provided during a severe drought.

mining (15 MGD), industrial (12 MGD), agriculture (10 MGD), irrigation (1.0 MGD), and commercial (0.2 MGD). While the region's overall withdrawals have not increased markedly, some water use groups have. This is particularly true of the agricultural, mining and irrigation use groups. Power generation withdrawals decreased during the middle of the decade, but increased in the later 1990s. Commercial withdrawals have been decreasing.

FIGURE 1

ANNUAL AND DAILY WATER WITHDRAWALS BY USE GROUP IN THE HIGHLANDS

USE GROUP	Source	1999 Annual (in millions of gallons)	1999 MGD
Agricultural	ground water	3,259	8.9
Agricultural	surface water	386	1.1
Commercial	ground water	33	0.1
Commercial	surface water	10	0.05
Industrial	ground water	3,153	8.6
Industrial	surface water	971	2.6
Irrigation	ground water	142	0.4
Irrigation	surface water	201	0.6
Mining	ground water	255	0.7
Mining	surface water	5,284	14.5
Potable water supply	ground water	29,397	80.5
Potable water supply	surface water	76,982	210.9
Power generation	ground water	19	0.05
Power generation	surface water	31,576	86.5
Total	ground water	36,257	99.3
Total	surface water	115,419	316.2
Grand Total		121,667	415.5

In most cases, the amount of water that is withdrawn is greater in the summer months than the winter months due primarily to irrigation that occurs in warm or hot weather. This is evident by Figure 1, where it shows greater withdrawal amounts during drought years. During drought years, winter withdrawals average about 366 MGD in the region while summer withdrawals average about 533 MGD, an increase of 46 percent. These substantial withdrawals during the summer months may have detrimental effects on the natural resources of the region.

The reservoir systems of the Highlands primarily serve populations that inhabit towns and cities outside of the region. The majority of the ground water used in the Highlands is not transferred out of the region.

Highlands Task Force Recommendations

As a result of the above findings, the Governor's Highlands Task Force has recommended that a Regional Master Plan be prepared, incorporating the following:

- The Regional Master Plan should seek to preserve the natural resources of the Highlands and enhance sustainable economic growth and quality of life in the region by:
 - Protecting water quality, drinking water supplies, wetlands, critical habitat for plants and animals, vegetated stream corridors; contiguous forests; steep slopes;
 - Protecting and preserving open space and natural resources;
 - Preserving farmland and keeping agriculture viable and prosperous in the region;
 - Promoting historic, cultural, scenic and recreational resource opportunities that preserve the natural features of the region;
 - Identifying preservation zones within the Preservation Area where development would not occur in order to protect water resources and other highly sensitive environmental lands that should be permanently preserved through a variety of tools, including acquisition and transfer of development rights;
 - Identifying special critical environmental areas in high-resource-value lands outside the Preservation Area and developing voluntary standards and guidelines for their protection;
 - Accept petitions from municipalities to designate special "critical environmental areas" in high-resource-value lands outside the Preservation Area and developing voluntary standards and guidelines for their protection;
 - Analyzing population and employment trends;
 - Analyzing the capacity for future growth in the region based upon water and other natural resource constraints.
 - Establishing appropriate development densities (including the establishment of greater densities where growth should occur and lesser densities where it should not);
 - Considering existing infrastructure, such as sewer lines already in the ground, when considering where to encourage growth and re-development; and

- Creating a regional transportation plan (developed in consultation with NJDOT and other appropriate agencies) that is consistent with these goals and takes into consideration transportation needs, land use patterns inside and outside the Highlands, and safety issues.
 - The Highlands Council should be required to create a planning process that examines existing local efforts, involves local entities, and provides for public hearings that maximize public participation.
 - The Highlands Council's planning analysis should start with the consideration of State regulatory requirements, the State Plan, County and local plans, federal, State and private studies of the region, and an analysis of the carrying capacity for future growth in the region based upon water and other natural resource constraints.
- Funding: There should be an adequate funding source for the Council's regional planning and oversight of local approvals.
- State Plan: The Council should create the Regional Master Plan in consultation with the State Planning Commission. The State Planning Commission can update the State Plan as appropriate as a result of that consultation. Ultimately, the Highlands Regional Master Plan and State Plan should be consistent. Consistency with the State Plan should not add an additional layer of bureaucracy: the Regional Master Plan can satisfy the municipalities' obligations of cross-acceptance; the development of the Regional Master Plan should benefit from the planning that has already been done by the counties as part of their on-going planning process. For towns seeking endorsement both in and out of the Preservation Area, the Council should consider all applications on a holistic basis and prioritize them.
- Regulations: Unlike the Pinelands Commission, the Council should not have the authority to promulgate its own environmental regulations.
- In the Preservation Area: The Council's authority (planning, zoning and review) should be mandatory.
 - Conformance: The towns' master plan and development and land-use ordinances should have to conform to the Regional Master Plan or the Regional Master Plan should be imposed on them. The Council should establish a conformance process. Where a municipality is certified to be in conformance, the municipality should review all land-use applications. The Council should establish procedures for getting notice (of land-use applications, including approvals and variances, and changes to the certified master plan, and development and land use ordinances) and intervening. The Council should have the discretion to review any application if the development involves 1 acre or more of impervious cover or 2 acres or more of disturbance. Individuals should be able to notify the Council of projects, raise compliance issues and petition the Council to intervene. The Council should establish a procedure for evaluating agricultural development applications in order to recognize agricultural viability. The Council should have the authority to deny upon majority vote. The

Council should also have the discretion to revoke the conformity determination. Prior to conformance and if the conformity determination is revoked, the Council should have the authority to review all local approvals, variances, changes to the certified master plan development and land-use ordinances. Nothing should prevent a municipality from enacting zoning standards that are stricter than the Regional Master Plan.

- Redevelopment: The Council should work with municipalities to identify previously developed appropriate areas for redevelopment. Prior to adoption of the regional master plan, the Council may approve appropriate municipal redevelopment areas that it determines to be in conformance with the DEP's rules and consistent with the statutory goals for the Preservation Area.
- Enforcement: The municipality should have the authority and obligation to enforce planning and zoning standards/decisions. The Council should have independent enforcement authority.

Additional Recommendations

Simply suggesting that there will be a stable source of funding, subject to annual appropriations by the Legislature, is insufficient. There should be a Constitutionally Dedicated fund created to cover all costs of preservation sustained by landowners, municipalities, counties and school districts. This should be funded by a user fee on the water resource. Additionally, mandated conservation of water and repair/upgrade of transmission facilities should also be imposed on downstream users.

The Highlands Interpretive Center

The Sussex County Strategic Growth Plan recognizes the natural resource importance of the Highlands and understands the special protection being afforded this area. All residents of the Highlands region, those who depend upon its resources, and those who visit the area should be afforded an opportunity to gain an appreciation of the Highlands. Therefore, we recommend that a state of the art Highlands Interpretive Center be developed and located in Sussex County. With the State of New Jersey taking the lead, the center should be established and managed as multi-public agency/private enterprise partnership. The interpretive center should include areas for interpretive displays, interactive educational exhibits, classroom instruction, a museum, auditorium, public information counter, restrooms, snack bar, gift shop, bookstore, and administrative offices. A series of short looped nature trails around the center would complement the indoor educational experience.

Suggested multi-media interpretive displays should include but not be limited to the following:

- + Geologic History of the Highlands. The areas geology is a key component in it's past, present, and future importance as a provider of critical natural resources.
- + Importance of the Highlands to an Emerging Nation. The Highlands provided forest products for the construction of buildings, boats, and containers of all types. Highlands wood was also converted to charcoal, the primary source of fuel for heat, cooking, and manufacturing. Mineral products such as iron and zinc ore were

important contributors to our early industrial growth. Rock, sand, and gravel were the building material use to construct our early roads and cities.

- + Cultural History of the Highlands. A series of exhibits would showcase the Lenni Lenape Indians, substance farms, mining and furnace operations, the Morris Canal, early village life and railroads.
- + Reservoirs and Watersheds. Why they are needed and how they function.
- + The Highlands Ecosystem. A series of exhibits showing plant and animal life in the various Highlands habitats; wetlands, lakes, streams, upland forests, ridge tops, etc.

A three-part film should be produced that first explains the hydrologic cycle in the Highlands. It should then trace the journey of a drop of rain water forming in a cloud until it come out of a faucet in the city. Finally, it should demonstrate water conservation measures and stress their importance.

The center should also provide links to Highlands recreation facilities, agricultural markets, historic sites, and relevant commercial ventures.

THE NEW JERSEY STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The State Development and Redevelopment Plan (SDRP) requires all agencies at the municipal, County and State levels to evaluate their plans and regulations and determine the extent to which they advance the objectives of the State Plan. These purposes are, as spelled out in the statute:

N.J.A.C. 52:18A-200. State Development and Redevelopment Plan

The State Development and Redevelopment Plan shall be designed to represent a balance of development and conservation objectives best suited to meet the needs of the State. The Plan shall:

- a. Protect the natural resources and qualities of the State, including, but not limited to, Agricultural Development Areas, fresh and saltwater wetlands, flood plains, stream corridors, aquifer recharge areas, steep slopes, areas of unique flora and fauna, and areas with scenic, historic, agricultural and recreational values;
- b. Promote development and redevelopment in a manner consistent with sound planning and infrastructure that can be provided at private expense or with reasonable expenditures of public funds. This should not be construed to give preferential treatment to new construction;
- c. Consider input from State, County and municipal entities concerning their land use, environmental, capital and economic development plans, including to the extent practicable any State Plans concerning natural resources or infrastructure elements;
- d. Identify areas for growth, limited growth, agriculture, open space conservation and other appropriate designations that the State Planning Commission may deem necessary;
- e. Incorporate a reference guide of technical planning standards and guidelines used in the preparation of the Plan; and
- f. Coordinate planning activities and establish Statewide planning objectives in the following areas: land use, housing, economic development, transportation, natural resource conservation, agriculture and farmland retention, recreation, urban and suburban redevelopment, historic preservation, public facilities and services, and intergovernmental coordination.

What this means is that a mechanism has been prepared to integrate the planning and implementation activities of the three levels of government so as to make the effort more efficient and preserve critical resources. *It also means that it is not only the municipal and County governments who have to bring their policies and regulations into consistency with the SDRP but also the State agencies (DEP, DOT, etc).* This is necessary in order to bring predictability, consistency of objectives and agendas, and cohesion to the entire planning and regulatory framework in the state. This is further supported by the directives of past and current Governors of the State, that all agencies bring their policies and regulations into conformity with

the SDRP. The most recent of these is Executive Order #38, Governor James E. McGreevey, dated 10/25/02.

The SDRP, much like the Strategic Growth Plan, incorporates a policy map which separates various areas in the state into Planning Areas. These planning areas, similar in concept to the landscapes of the SGP, provide broad policies for growth and development within which the centers and environs are identified.

In Sussex County, the Planning Area (PA) designations are predominantly PA 4, PA 4B, and PA 5. There is a very small area of PA 2, located in Stanhope Borough (See Exhibit 3). The policy framework within which the eleven designated and six potential centers in the County function is set out generally below as excerpts from the SDRP (pp 194-216) as follows:

Suburban Planning Area (PA2)

General Description

The Suburban Planning Area is generally located adjacent to the more densely developed Metropolitan Planning Area, but can be distinguished from it by a lack of high intensity Centers, by the availability of developable land, and by a more dispersed and fragmented pattern of predominantly low density development. Suburban Planning Areas are or will be served by regional infrastructure, except that, outside of Centers and major transportation corridors, there is limited, if any, availability of alternative modes of transportation to the automobile.

These areas have generally been designated for growth in municipal master plans. As development expands, these services will become increasingly available if planned properly. The Suburban Planning Area has about 11 percent of the state's population and employment. Nine active passenger rail stations of the state's total of 156 active stations serve it.

The Suburban Planning Area is generally found in suburban growth corridors located along state highways: portions of Route 80 in Morris County, portions of Route 78 in Hunterdon and Somerset, portions of Route 287 in Somerset, suburban Route 1 (the Princeton corridor), the New Jersey Turnpike in Middlesex and Mercer, the Garden State Parkway in Monmouth and Ocean, I-295 in Burlington and Gloucester, and the Atlantic City Expressway in Camden and Gloucester counties.

Current development patterns, outside of Centers, lack the compact settlement pattern of the older suburbs in the Metropolitan Planning Area and are almost entirely dependent on the private automobile for transportation. The pattern of scattered subdivisions and employment centers offers few if any focal points for community interaction - the traditional "Main Streets" and town greens where community identity and civic life were fostered through parades, outdoor concerts, and the informal social interaction of the Saturday morning errands.

EXHIBIT 3
PLANNING AREAS

Rural Planning Area (PA4)

General Description

The Rural Planning Area, including its sub-area, the Rural/Environmentally Sensitive Planning Area, comprises much of the countryside of New Jersey, where large masses of cultivated or open land surround rural Regional, Town, Village and Hamlet Centers, and distinguish other sparse residential, commercial and industrial sites from typical suburban development. Four major regions of the state where the Rural Planning Area can be found include portions of: Sussex and Warren counties; Hunterdon, northern Mercer and southern Somerset counties; eastern Burlington and western Monmouth counties; and southern Gloucester, Salem and northwestern Cumberland counties.

The Rural Planning Area also includes economic activities such as resource extraction, hunting and fishing, support and service businesses, and scattered commercial, industrial and low-density residential uses. These activities continue to provide important services to area residents and workers. The recreation and tourism sector, a growing portion of New Jersey's economy, is heavily dependent on careful management of these lands and the services rural towns and villages can provide for visitors. A number of municipalities in rural areas are high on the list of New Jersey's distressed communities and look for land uses that contribute jobs and revenue to their economies. "Main Street" businesses in our traditional downtowns, in the face of increasing competition, continue to provide important services to area residents and workers. Without a greater attention to maintaining and enhancing our rural areas, these economic activities are at risk.

But the Rural Planning Area is more than just farmland. People have consistently chosen to live or work in these rural areas not just because of the beauty of farmland and other open lands, but also the community character of the existing Centers where development is compact, rural and often historic. The Cores of these Centers have and may still provide local or regional opportunities for employment, shopping and other personal services. Neighborhoods in the Centers provide opportunities for reasonably priced housing and social interaction. Public infrastructure that supports development is often found in these Centers, as are public and private facilities and services that make these places so desirable. Public transportation services may connect these Centers to others throughout New Jersey, while roads, bridges and rails are designed to move people and goods in a manner that respects the rural and often historic character of the area. Many rural Centers are surrounded by greenbelts that are cultivated or maintained in a natural state.

Rural/Environmentally Sensitive Planning Area (PA4B)

General Description

Some lands in the Rural Planning Area (PA4) have one or more environmentally sensitive features qualifying for delineation as Rural/Environmentally Sensitive (PA4B). This subarea contains valuable ecosystems or wildlife habitats. Rural/Environmentally Sensitive Planning Areas are supportive of agriculture and other related economic development efforts that ensure a diversity within New Jersey. Any development or redevelopment planned in the Rural/Environmentally Sensitive Area should respect the natural resources and environmentally sensitive features of the area.

Environmentally Sensitive Planning Area (PA5)

General Description

The Environmentally Sensitive Planning Area contains large contiguous land areas with valuable ecosystems, geological features and wildlife habitats particularly in the Delaware Bay and other estuary areas, the Highlands Region, and coastal area. The future environmental and economic integrity of the state rests in the protection of these irreplaceable resources. Some of these lands have remained somewhat undeveloped or rural in character.

Other areas, particularly New Jersey's coastal barrier islands, have experienced advanced levels of development, but remain highly vulnerable to natural forces. Environmentally Sensitive Planning Areas are characterized by watersheds of pristine waters, trout streams and drinking water supply reservoirs; recharge areas for potable water aquifers; habitats of endangered and threatened plant and animal species; coastal and freshwater wetlands; prime forested areas; scenic vistas; and other significant topographical, geological or ecological features, particularly coastal barrier spits and islands. These resources are critically important not only for the residents of these areas, but for all New Jersey citizens. Existing Centers within the Environmentally Sensitive Planning Area have been, and often remain, the focus of residential and commercial growth and public facilities and services for their region, as well as supporting the recreation and tourism industries. The wide diversity of natural and built systems has resulted in small rural Towns such as High Bridge, Ogdensburg and Hopatcong, and Villages such as Cape May Point, Far Hills, Bedminster, Mauricetown, Fortescue, Fairton, Leesburg, Stone Harbor, Seaside Heights and Surf City.

The above excerpts, provide the backdrop against which the goals and policies of the SDRP are set. The following Goals and related Policies are derived from the 2001 New Jersey State Development and Redevelopment Plan:

Goal #1: Revitalize the State's Cities and Towns

Policy: Urban Revitalization

Prepare strategic revitalization plans, neighborhood empowerment plans and urban complex strategic revitalization plans that promote revitalization, economic development and infrastructure investments, coordinate revitalization planning among organizations and governments, support housing programs and adaptive reuse, improve access to waterfront areas, public open space and parks, and develop human resources with investments in public health, education, work force readiness and public safety in cities and towns.

Goal #2: Conserve the State's Natural Resources and Systems

Policy: Water Resources

Protect and enhance water resources through coordinated planning efforts aimed at reducing sources of pollution and other adverse effects of development, encouraging designs in hazard-free areas that will protect the natural function of stream and wetland systems, and optimizing sustainable resource use.

Policy: Special Resource Areas

Recognize an area or region with unique characteristics or resources of statewide importance and establish a receptive environment for regional planning efforts. The Highlands region has been recognized as the first Special Resource Area in New Jersey.

Goal #3: Promote Beneficial Economic Growth, Development and Renewal for All Residents of New Jersey**Policy: Economic Development**

Promote beneficial economic growth and improve the quality of life and standard of living for New Jersey residents by building upon strategic economic and geographic positions, targeting areas of critical capital spending to retain and expand existing businesses, fostering modern techniques to enhance the existing economic base, encouraging the development of new enterprises, advancing the growth of green businesses, elevating work force skills, and encouraging sustainable economic growth in locations and ways that are fiscally and ecologically sound.

Policy: Agriculture

Promote and preserve the agricultural industry and retain farmland by coordinating planning and innovative land conservation techniques to protect agricultural viability while accommodating beneficial development and economic growth necessary to enhance agricultural vitality and by educating residents on the benefits and the special needs of agriculture.

Policy: Equity

It is the position of the State Planning Commission that the State Plan should neither be used in a manner that places an inequitable burden on any one group of citizens nor should it be used as a justification for public actions that have the effect of diminishing equity. It is also the position of the Commission that the achievement, protection and maintenance of equity be a major objective in public policy decisions.

Goal #4: Protect the Environment, Prevent and Clean Up Pollution**Policy: Energy Resources**

Ensure adequate energy resources through conservation, facility modernization, renewable energy and cogeneration; to continue economic growth while protecting the environment; and to modify energy consumption patterns to capitalize on renewable, domestic energy supplies rather than virgin extraction and imports.

Policy: Waste Management, Recycling and Brownfields

Promote recycling and source reduction through product design and materials management and by coordinating and supporting legislative, planning and facility development

efforts regarding solid and hazardous waste treatment, storage and disposal. Capitalize on opportunities provided by Brownfield sites through coordinated planning, strategic marketing and priority redevelopment of these sites.

Policy: Air Resources

Reduce air pollution by promoting development patterns that reduce both mobile and stationary sources of pollution, promoting the use of alternative modes of transportation, and supporting clean, renewable fuels and efficient transportation systems.

Goal #5: Provide Adequate Public Facilities and Services at a Reasonable Cost

Policy: Transportation

Improve transportation systems by coordinating transportation and land-use planning; integrating transportation systems; developing and enhancing alternative modes of transportation; improving management structures and techniques; and utilizing transportation as an economic development tool.

Policy: Infrastructure Investments

Provide infrastructure and related services more efficiently by investing in infrastructure to guide growth, managing demand and supply, restoring systems in distressed areas, maintaining existing infrastructure investments, designing multi-use school facilities to serve as centers of community, creating more compact settlement patterns in appropriate locations in suburban and rural areas, and timing and sequencing the maintenance of capital facilities service levels with development throughout the state.

Goal #6: Provide Adequate Housing at a Reasonable Cost

Policy: Housing

Preserve and expand the supply of safe, decent and reasonably priced housing by balancing land uses, housing types and housing costs and by improving access between jobs and housing. Promote low- and moderate-income and affordable housing through code enforcement, housing subsidies, community-wide housing approaches and coordinated efforts with the New Jersey Council on Affordable Housing.

Policy: Design

Mix uses and activities as closely and as thoroughly as possible; develop, adopt and implement design guidelines; create spatially defined, visually appealing and functionally efficient places in ways that establish an identity; design circulation systems to promote connectivity; maintain an appropriate scale in the built environment; and redesign areas of sprawl.

Goal #7: Preserve and Enhance Areas with Historic, Cultural, Scenic, Open Space and Recreational Value

Policy: Open Lands and Natural Systems

Protect biological diversity through preservation and restoration of contiguous open spaces and connecting corridors; manage public land and provide incentives for private land management to protect scenic qualities, forests and water resources; and manage the character and nature of development for the protection of wildlife habitat, critical slope areas, water resources, and for the provision of adequate public access to a variety of recreational opportunities.

Policy: Historic, Cultural and Scenic Resources

Protect, enhance, and where appropriate rehabilitate historic, cultural and scenic resources by identifying, evaluating and registering significant historic, cultural and scenic landscapes, districts, structures, buildings, objects and sites and ensuring that new growth and development is compatible with historic, cultural and scenic values.

Goal #8: Ensure Sound and Integrated Planning and Implementation Statewide

Policy: Comprehensive Planning

Promote planning for the public's benefit, and with strong public participation, by enhancing planning capacity at all levels of government, using capacity-based planning and Plan Endorsement to guide the location and pattern of growth and promoting cooperation and coordination among counties, municipalities, state, interstate and federal agencies.

Policy: Public Investment Priorities

It is the intent of the State Plan that the full amount of growth projected for the state should be accommodated. Plan Strategies recommend guiding this growth to Centers and other areas identified within Endorsed Plans where infrastructure exists or is planned and where it can be provided efficiently, either with private or public dollars. (Designated Centers are included in the category of communities with Endorsed Plans.) Public investment priorities guide the investment of public dollars to support and carry out these Plan Strategies.

STRATEGIC GROWTH PLAN

All the research and investigation reported in earlier sections of this study have been setting the foundation for the Strategic Growth Plan. This section will detail the lessons learned and actions to be taken to ensure the continuing well being of residents and businesses in Sussex County.

To begin, the SGP is organized by sub-regional units known as landscapes. These are combinations of land uses which, by virtue of their characteristics, identify themselves. These landscapes are Rural/Agricultural, Highlands, Traditional Centers (Towns, Villages, and Hamlets), Job Creation Centers, Parks and Wildlife Management Areas, and Lake Communities.

The critical issues to be addressed within each of these landscapes are:

- Development Patterns
- Housing
- Transportation
- Resource Conservation
- Agriculture
- Landowner Equity

Critical Landscape Issues

Development Patterns

The largest of the landscapes in the County is the Rural/Agricultural landscape comprising 175,106 acres. This landscape, along with the Parks and Wildlife Management Area landscape (111,981 acres), gives the County its character as a scenic and generally undeveloped area. The remaining landscapes, of lesser extent, are: Traditional Centers 38,800 acres; Lake Communities 17,730 acres; Job Creation Centers 335 acres. The Highlands, which incorporates parts of all landscapes, comprises 126,233 acres in total with 72,825 acres in the core preservation area.

With the Highlands preservation and planning areas extracted, the remaining landscapes' acreages are as follows:

Rural/Agricultural	145,386 acres
Traditional Centers	37,058 acres
Job Creation Centers	335 acres
Parks and Wildlife Mgmt. Areas	76,964 acres
Lake Communities	11,384 acres

If the scenic and undeveloped character of Sussex County is to be retained, the low density “sprawl” development form, currently the dominant form of new residential and non-residential construction in the County, can no longer take center stage. Instead, higher density, attached and detached single family housing in mixed use developments will constitute the majority of new residential construction. Non residential construction will be generally in or adjacent to centers or within expanded nodes.

Housing

Not only will the type of housing be altered, but the distribution of housing must also change. In order to accomplish this goal, development in centers, coupled with drastically reduced densities outside the centers, can be fostered through a combination of rezoning and financial incentives. For example, residential densities in centers, whether those centers are hamlets, villages or towns, will be on the order of 8-30 units per acre. In order for these densities to be safely sustained, central water along with central wastewater treatment utilities and/or advanced (denitrification) septic systems will have to be provided. These concentrations of residential development will also have a complimentary commercial component. They will be designed to offer pedestrian access to goods and services, including recreation, rather than reinforce the current high cost dependency on the automobile. In Sussex County, the effect will be to revitalize existing small towns and prepare for development of new towns. Large lot development will continue to be an option where environmental and access conditions permit.

The Centers will be chosen as expansions and redevelopments of existing centers or as new, freestanding centers, in the areas best suited to carry the impact of development. The physical elements required to support development at higher densities are productive aquifers, permeable soils, availability of existing and/or proposed water supply, sewage treatment, and transportation infrastructure. The design of centers will require elements such as on-street parking, reduced building setbacks, wide sidewalks, town greens and a clear edge to set the center off from the outlying countryside or ‘environs’. Where infrastructure does not exist but is planned, careful phasing of its construction will provide municipalities with some degree of control over the rate and location of development.

Outside the Centers, very low density residential and nodes of specialty commercial and industrial development will predominate. These too, will be focused, with the traditional strip commercial development actively discouraged as an inefficient overuse of frontage to the detriment of lands to the rear and as a prime culprit in the loss of the views of open land, so critical to the County character. Stand alone commercial development should be designed to utilize the depth of property rather than only its width.

Housing will be most appropriately located in the Traditional towns, Villages and Hamlets that exist or that may be designated by municipalities in the Rural/Agricultural Landscape as growth areas. Safe, decent and sanitary housing is a fundamental human need, second only to adequate food. The data in the Housing Element illustrate the fact that far too many people who live in the County live in substandard conditions. More than one in three households pay too much for housing. Many of those who work in Sussex County must live outside the State, with the attendant costs in time, money and quality of life that are attached to long commutes.

Housing in Sussex County, by reason and by law, must be accessible to all income groups and household types. The fact is that there are far too many low, moderate and middle income households forced to spend forty percent or more of their income for housing. Substantial numbers of the Sussex County workforce live in Pennsylvania because housing west of the Delaware River is substantially less expensive than in Sussex County, enough so that the personal and economic costs of extended commutes are accepted. Were housing available to the majority of those employed in the County, commuters would waste far less time and money; there would be less wear and tear on roadways; air and water pollution would be reduced; a more balanced tax base would result and the quality of life for a great number of people would be significantly improved.

The County continues to support expanded housing opportunities. As affordable housing (as defined by COAH) typically requires water and sewer infrastructure to support economically efficient densities, nearly all such new housing will be located in existing or proposed centers. Properly designed and priced, new and rehabilitated housing can bring life and vitality to existing centers and serve as an integral part of new centers acting as receiving areas for densities from the environs.

The challenge facing local and County governments is that, in the absence of sources of state and federal funding, it is the market, made up of private developers, non-profit organizations and the like, that actually creates housing. Government can only provide a regulatory framework within which housing is produced. Municipal compliance with the requirements of the New Jersey Fair Housing Act and receipt of Substantive Certification from the Council on Affordable Housing will provide the development community with clear direction and an opportunity to create the needed housing.

In addition to the general population of mid to lower income households, the elderly and developmentally disabled populations face even greater limits in their search for accessible and affordable housing. Many seniors and most of the developmentally disabled population subsist on very low incomes and are limited in their ability to work to earn larger incomes.

It is abundantly clear that the market in Sussex County produces large homes at high prices. These homes are out of reach of middle income households, to say nothing of low and moderate income households. As the price of the new homes escalates, so too, does the price of existing housing.

Sussex County is a comfortable, geographically desirable area in which to live. The rising prices felt here and in the rest of the state are a direct result of limited supply and strong demand.

Affordable housing can be mandated to be affordable to low and moderate income households, defined by COAH as those with incomes of less than 80% of the median household income for the four county region. The median household income in Sussex County is \$65,000.

Reachable housing, our term for housing within reach of households with incomes of 100% to 150% of the median (\$65,000 - \$97,500), would be, if available, affordable to middle income households. If the occupants pay no more than 30% of gross income for housing, their cost should be approximately \$19,500 per year. This translates into a mortgage payment of \$850

per month, plus taxes of \$6,000 per year and utility costs of \$2,000 plus \$1,300 per year for maintenance. With a mortgage of 90% of the total cost (\$142,000), reachable housing should run between \$158,000 and \$237,000. The supply of such housing in livable condition is, per report of the Sussex County Association of Realtors, very low. Data from home sales in the report indicates that the median closing cost of homes in 2003 was \$247,548. Costs in the first five months of 2004 have risen an additional 10%. Incomes have remained roughly flat. Interest rates, long at historic lows, will increase, leading to a reduction in the affordable mortgage. These data, more than the median value of housing in the County, point out the near crisis in housing in Sussex County.

Were municipalities able, with the cooperation and funding from the State, to invest in the infrastructure needed to support higher density housing, economies of scale might bring prices down. This is not altogether certain. The proximity of Sussex County to the northeastern New Jersey job market has fueled a great demand for housing while the supply of buildable land - either as raw land or as modified by water and sewer infrastructure - is sharply decreasing.

The County Administration has consistently supported the production of housing, particularly for those senior citizens and children now living in the County who are not able to support the costs of housing as they stand today. Beyond simply providing regulatory relief to affordable home builders, local governments must be sure that zoning is amended to permit high density housing, supported by water and sewer infrastructure in spite of the adverse school funding consequences on the local property tax. Young people and families are the future of the County and cannot be excluded by finance driven zoning decisions.

One tack which may be taken to assist the market in the provision of affordable housing is the Regional Contribution Agreement. This, permitted by the Fair Housing Act, allows a municipality to transfer part of its fair housing obligation to another in the four-County housing region. As the objective of this Strategic Plan is to provide opportunities in Sussex County to overcome the unmet demand for affordable housing, only where there is no municipality willing to act as a receiver should RCA money be sent to municipalities out of the County. These funds can be used to subsidize construction and conversion costs of new housing and for rehabilitation of existing homes.

In the event that Transfer of Development Rights proves to be a viable option, the County should support inter-and intra-municipal transfers as a means to meet the fair compensation requirements for lands stripped of developable capacity and to increase densities to the levels needed to offset the costs of production of affordable and reachable housing.

In addition to the provision of central sewer collection systems, currently available and DEP accepted technological advances in individual on-site disposal systems allow much higher densities than would conventional systems. As noted in the resource conservation discussion, aerobic and denitrification systems remove nearly all solids and BOD, bacterial and viral contaminants, and nitrogen as nitrate. These are a relatively low cost alternative to larger scale treatment facilities and, as a highly efficient DEP approved technology, should be aggressively promoted for areas of relatively high density (8-10 dwelling units per acre) in lake communities and smaller centers.

Transportation

Mass transportation in Sussex County has been severely limited since the late 1960's and early 1970's when the six former active rail lines in the County were taken out of service. At that point, other than commuter bus service to Manhattan, there was no in-County mass transit service available to anyone, resident or visitor. Since fewer than 2% of County commuters work in New York City, the loss was enormous.

Since the dismantling of the railroads, the NYS&W is the sole remaining service. It is freight only and limited to a fraction of its original size. Of the remaining rail rights-of-way, only the Lackawanna Cut-off and the remainder of the NYS&W are sufficiently intact for reactivation. The County has strongly advocated reactivation of both from the time service was discontinued. The other rights-of-way have either been converted to rail trails by the NJDEP or are under consideration for conversion. Each of these rights-of-way has been broken up by development and is not a candidate for reactivation.

Since the 1970's, the County has been able to provide some alternative to the single occupancy vehicle (SOV) through the operation of the Sussex County Transit bus service. This service, a mix of fixed route, dial-a-ride and route deviation, provides in-County service between 6:15 and 5:30 Monday through Friday. Some municipalities, Newton, Sparta, and Vernon, also operate senior citizen bus services.

The net effect however, borne out by the origin and destination data contained in the Mobility Study, is that more than 90% of passenger and freight travel in Sussex County is by automobile or truck. This places enormous pressure on the existing roadway network. As population and the attractiveness of the County as a recreation destination increase, so, too, does congestion. This pressure is further exacerbated by the lack of available jobs in the County. Recall that Sussex has the lowest jobs to population ratio of any county in the state.

What strategic options are available to the County and municipalities to offset the documented increasing stress on the system? Some roadway improvements are underway or are in the funding pipeline. Improvements to the Route 15 - Houses Corner Road intersection in Sparta, upgrading a section of Route 206 in Byram, realigning the Routes 23 and 94 intersection in Hamburg, and general improvements to Route 23 in Sussex Borough and Hardyston complete the list of state highway improvements. These will generally improve safety and, to a moderate extent, ease congestion in the commuter corridors.

Agriculture

Agriculture is perhaps the defining element in the character of Sussex County. Agriculture has always been the major industry in the County, even though its economic influence has declined in the past ten years. The viability and diversification of agricultural operations in the County is, if not the highest priority, very nearly so. Agriculture is an industry. It is a steward of the land. It is a provider of open space. But, most importantly, it provides us a reliable, proximate food source.

Agriculture has changed. It is not only dairy farms and corn fields. It is managed forests, vegetables, grapes, flowers, goats, llamas, emus, horses, fish, hay and firewood. The list goes on. At its root, however, it is what sustains us nutritionally and esthetically.

Farmland is also the land most economically converted to housing and general business use. It tends to be nearly flat, and is well drained in contrast to the many areas of steep, rocky, and poorly drained lands in Sussex County. However, once converted to other uses, it is lost to production. Our awareness and understanding of agriculture, particularly in Sussex County where it has not been precluded by conversion to other land uses, is augmented by the successful farmland preservation program, which is financed by dedicated taxes at the state, County and municipal levels. The program, nearing 10,000 acres of preserved farmland, coupled with open space efforts, has been instrumental in focusing attention on the need to retain productive agriculture and scenic lands. An innovated, County-based agritourism program also assists the agricultural community in maintaining the viability of agriculture.

Resource Conservation

Sussex County is rich in natural resources; this includes plentiful water, clean air, fertile soils, huge blocks of preserved open spaces, and a wide variety of farms. As the County grows, the pressure on these resources increases exponentially. Land subdivided into large home lots may reduce aquifer recharge, increases storm water runoff (outside the regulated design storm event), and reduces or eliminates habitat for larger species. Occupancy of the lot for residential purposes leads to increased use of water, greater concentrations of nutrients in the soil from fertilizers and (using out-of-date systems) septic waste, reduction in air quality from heating and vehicle exhausts, and changes the landscape from open land or forest to suburban development. At some point, the quality of life values held to be important are lost.

The overriding objective of the Sussex County Strategic Growth Plan is to achieve a balance between the use and enjoyment of the natural amenities of the County and the reasonable expectations of those who live, work, and own land in the County and of those who would like the opportunity to do so.

Carrying capacity is a measure of available water, the ability of soils to absorb water and waste discharges, land areas not constrained by steep slopes (over 25%), wetlands or other surface water features, regulatory buffers associated with water resources, land not currently in use, or permanently preserved as farmland, general open space or park and wildlife management lands.

As a first step in achieving balance, the overall carrying capacity of the County must be understood. Carrying capacity is enormously affected by the technology of water and sewer capacity. Larger developments, at relatively high densities, make water storage and treatment facilities cost effective. By the same token, on-site waste treatment technology, whether as a small package treatment plant, individual denitrification system, or regional sewer collection and treatment system vastly reduces the negative impact of development, allowing greater recharge to groundwaters of high quality treated water. This technology, along with septic management programs, can also be employed to cost effectively remediate existing substandard conditions. Water supply capacity may also be addressed via surface impoundments or recycling of water.

Landowner Equity

Planning is an important activity. It gives us a chance to reflect on the results of prior actions. Where these results have proven unacceptable, we have the responsibility to alter the action to achieve a positive result. Where these actions yielded beneficial results we may apply them more broadly. In the Strategic Growth context, this is most often achieved through land use regulation.

However, in order to shield the general public from the cost of private actions, land use regulation imposes costs on property owners. Finding the balance between excessive costs to landowners (the taking issue) and unreasonable costs to the public (air, water, noise and light pollution) is rarely simple. Nonetheless, the obligation of local government is to accomplish just that objective. Zoning, authorized by the Legislature and sanctioned by the Court, removes land use options from the landowner, a partial taking of value. Its purpose is the protection of property values by preventing the location of conflicting uses in close proximity to each other (e.g. a tannery next to a home). At some point, however, the rights left to a land owner may be so compromised as to amount to confiscation of the property. At that point, the Federal and State Constitutions require just compensation.

If there is ever to be consensus on the direction and character of land development, the community as a whole must buy into the plan and the rules necessary to implement the plan. While compromise often leaves all parties somewhat dissatisfied, the balance must be struck to preserve the very elements of the County which bring growth and investment.

These objectives also impose costs as they require a shift in acceptance of what “everyone knows”.

- We have plenty of land.
- There is plenty of water.
- We’ve used all the good land, the rest must be preserved.
- We must avoid any additional water use because we will experience droughts in the future. (See conflict with the second bullet)
- School costs must be avoided.
- Large lot zoning slows development.
- My septic system doesn’t need attention, if I see no problem, none exists.

All of the costs of rational planning and implementation must be borne equally. Simply taking more and more of the value of land from those who have it without paying for it is unfair, unjust, and cannot be part of this Strategic Growth Plan.

There are mechanisms available to avoid imposing unreasonable costs on one segment of the population or another.

- Public financing of development rights purchase.
- Outright purchase of land, transfer of development rights.
- Incentives such as Transfer of Development Rights to build in one area over another.

- How do we address these strategically? The planning function is education. What we don't know will hurt us, our children, and theirs. Planning cannot right all social wrongs. Planning cannot make us take responsibility. Planning can tell us what will happen if we don't.

General Landscape Goals

The SGP is organized into landscapes. These landscapes are Rural/Agricultural, Highlands, Traditional Towns, Villages and Hamlets, Job Creation Centers, Parks and Wildlife Management Areas, and Lake Communities. Each of these is identifiable by its physical nature and constitutes a substantial, understandable entity. The Strategies outlined below are based upon the character and extent of the landscapes and the need to provide a framework for the future development of Sussex County.

For each of the landscapes within the County, general goals have been developed, based on the public comments at the numerous visioning meetings held throughout the County between 2000 and 2002. At these meetings the public, Municipal Officials, Federal, State, County, and Municipal Board and Governing Body Members were asked to spell out their concerns, reasons for living and working in the County, and how they thought the character of the area could be preserved and the quality of life in Sussex County maintained. Many of the above affect more than one landscape while others have a greater effect on one landscape than another. These concerns and aspirations are outlined below.

Development Patterns

Rural/Agricultural Landscape

- Minimize sprawl development through incentives for density transfer.
- Development in the environs should be restricted to relatively low densities. Densities should be determined through carrying capacity analysis using tools such as the Nitrate Dilution model and soils data derived from the newly completed Sussex County Soil Survey (Exhibit 4).
- Locate development in areas least likely to have a negative effect on agricultural operations.
- Permit the development of agricultural industry near significant farmlands.
- Require development, other than agricultural industry, to provide a buffer when lands adjacent to farmland are being developed.
- Streamside protection is always appropriate.
- Reduce the impact of light pollution through a Dark Sky or similar lighting specifications in new and existing developments.
- Improve the availability of water, sewer, gas and broadband infrastructure.

EXHIBIT 4

SUSSEX COUNTY SOIL SERIES

Highlands

- Although the new rules and regulations for the Highlands have not been promulgated at this point, we anticipate three major effects:
 1. Near total halt to subdivision and new site plans in the core preservation area. This will make provision for individual single family construction or expansion, minor expansion of non-residential facilities.
 2. A major shift in demand for land and facilities from the core preservation area to the planning area and adjacent municipalities.
 3. A substantial effort to make a Transfer of Development Rights (TDR) program succeed.
- Although not provided to date (it will be part of the Highlands Master Plan), an analysis of the economic impact to property owners and all levels of government and school districts will provide a basis to review the reasonableness of those rules which are implemented.

Job Creation Centers

Expansion of job creation centers will provide/create:

- Employment
- Opportunities for reverse commuting.
- A measure of economic stability to offset the regressive, counterproductive property tax system.
- The need to establish land use policies which compliment a strategy of marketing the County's strength to identified business and industry groups.
- A greater ability to align the resources of the Sussex County Economic Development Partnership with municipal efforts to develop employment, attract business, and expand support infrastructure (water, sewer, power, communications).

Traditional Town Centers

- These will become the focus of the majority of development in Sussex County.
- Existing centers should be revitalized. Proposed centers should provide a wide range of densities, styles and mixes of development. Where necessary, sewer service areas should be expanded to accommodate this planned growth (See Exhibit 5, Existing and Proposed Sewer Service Areas). Centers increase the range of options for transportation in the region.

EXHIBIT 5

EXISTING AND PROPOSED SEWER SERVICE AREAS

Parks and Wildlife Management Areas

- There are no significant development pattern issues associated with this landscape.
- Efforts should continue to acquire inholdings, link preserved lands, trails, historic and cultural sites, etc.

Lake Communities

Avoid creation of and minimize development of undersized lots except where waste disposal technology permits.

- Create septic management districts.
- Analyze land use patterns in order to improve surface water quality.

Housing

Rural/Agricultural Landscape

- Permit modest, low density development.
- Cluster development wherever possible.

Highlands

- Maintain existing housing in safe and sound condition.

Job Creation Centers

- No issues. Housing is not part of this landscape.

Traditional Towns, Villages, and Hamlets

- Provide a range of housing opportunities to all segments of the County population.
- Ensure that age-restricted housing is constructed in reasonable proportion to overall market/non-restricted housing.

Parks and Wildlife Management Areas

- Housing is not contemplated in this landscape. Where housing abuts parks, a reasonable separation should be provided to isolate conflicting activities.

Lake Communities

- Maintain lake communities as small scale, residential neighborhoods. Consider floor area ratio as a means to quantify an appropriate scale of development.

- Implement septic management programs.

Circulation

Rural/Agricultural Landscape

- Reduce scattered land development in order to achieve necessary concentrations of population/business to support mass transit.
- Support safety and congestion management improvements.

Highlands

- Encourage the repair and maintenance of existing highway and bridge infrastructure.
- Support reactivation of the former Lackawanna Cut-off and New York, Susquehanna and Western railroads.

Job Creation Centers

- Support general highway improvements and rail service reactivation and expansion.
- Increase employment at a competitive wage to serve the commuter population.

Traditional Towns, Villages, and Hamlets

- Expand bus service within the County.
- Expand connections with and opportunities for intercounty mass transit operations. For example, make connections with NJ Transit at the Dover train station.
- Provide pedestrian oriented development.
- Plan for Transit Oriented Development near future rail stations.
- Use traffic calming designs to address and mitigate the common problem of major roads which divide centers and create unsafe conditions for pedestrians.

Parks and Wildlife Management Areas

- Facilitate access to existing state and federal facilities.

Lake Communities

- Maintain safe internal road networks.
- Investigate possibilities of mass transit at these destinations.

Agriculture

Rural/Agricultural and Parks and Wildlife Management Areas Landscapes

- Encourage the preservation of active farming.
- Support the establishment of agricultural industry (e.g. value added produce processing) in close proximity to agricultural operations.
- Expand agritourism and the range of complimentary uses of farm properties (e.g. Bed & Breakfast).
- Require buffers between agricultural operations and conflicting land uses (e.g. residences, notification of Right-to-Farm).
- Expand the tillable acreage in State and Federal Parks and Forests.
- Create incentives to encourage the farming community to utilize land and buildings for productive agriculture in Parks and Wildlife Management Areas.

Highlands

- Issues are similar to those in the Rural/Agricultural landscape. Of particular concern will be landowner equity and agriculture.

Job Creation Centers, Traditional Centers, and Lake Communities

- Agriculture is a very small component of these landscapes.

Resource Conservation

Rural/Agricultural Landscape

- Reduce construction through Transfer of Development Rights (TDR) and soils-based carrying capacity analysis.
- Focus that construction that does occur through by clustering development thereby reducing impervious coverage, stormwater discharge, and general land disturbance.
- Protect surface water bodies and community wells (See Exhibit 6 – Wellhead Protection Areas).
- Encourage landowner practices which minimize fertilizer and siltation impact.

Highlands

- Resource protection is the rationale for the Highlands Protection Act, presumably the Regulations governing development will reflect this fact.

Job Creation Centers

- Promulgate standards which meld economic growth and development with environmental protection.
- Locate job creation centers and nodes (e.g. corporate campus facilities) in areas of substantial water availability and soil permeability.
- Ensure that public wells are protected and that the development review process requires consideration of known contaminated sites, spills, etc.
- Limit uses and development performance standards to those which avoid discharge of toxics and minimize storage of hazardous materials.

Traditional Centers

- Site/expand at the most advantageous natural resource locations.
- Where disturbance is required (as, for example of steep slopes), employ extensive safeguards to offset the effects of such disturbance.
- Ensure that the carrying capacity of the site, as expanded through central water and sewer infrastructure, is the foundation of the center design and build out.
- Make provision for extension of infrastructure facilities to employment generators adjacent to centers.
- Where major employment facilities are to be located at some significant distance from an established center boundary, require on site service infrastructure and functional connections between such facilities and the center they support.
- Where habitat suitable for threatened or endangered species is to be developed as part of a Center, offsetting habitat management practices shall be incorporated.

EXHIBIT 6

WELLHEAD PROTECTION AREAS

Parks and Wildlife Management Areas

- The focus of activities should be on natural heritage, historic and cultural sites and areas, views and other environmentally critical areas. (See Exhibit 7, Natural Heritage Sites)

Equity

Rural/Agricultural, Highlands, Parks and Wildlife Management Areas, Lake Communities

- Secure development rights through purchase at fair market value.
- Transfer densities through TDR, not rezoning.
- Encourage all permanent protection programs to concentrate in these landscapes

Job Creation Centers, Traditional Centers

- Establish marketable receiving areas.
- Provide appropriate infrastructure, to support densities and mixed uses.
- Avoid zoning which creates windfalls without a TDR link to environs.
- Provide incentives for intermunicipal cooperation in infrastructure construction and operation.

Plan Strategies and Objectives

The information presented in the body of the Strategic Growth Plan and its Appendices will allow the County, its constituent municipalities and the State to understand the interrelationships between all facets of Sussex County. The data presented and the conclusions reached make it clear that there are no simple answers.

The State Development and Redevelopment Plan was prepared under the authority of the State Planning Commission. The purpose of the Commission under the State Planning Act was to rationalize the development process such that the natural resources of New Jersey were understood and preserved, the urban areas of the State revitalized, and the provision of services by all levels of government made more efficient. No level of government, acting alone, can accomplish these goals. Only by concerted, cooperative efforts can the three levels of government in New Jersey gain control of the process of development and redevelopment. The Sussex County Strategic Growth Plan is the vehicle offered by the County of Sussex as its contribution to local determination of growth and development in the County.

EXHIBIT 7

NATURAL HERITAGE SITES

Transfer of Development Rights

The reorganization of development patterns must avoid windfalls and wipeouts. The following strategy is based on the use of the recently authorized transfer of development rights technique. The balance between sending area (environs) and receiving area (center) should be established by both infrastructure and market analysis to ensure that there is sufficient capacity in the receiving areas to accommodate the credits to be transferred.

- Development in the environs should be restricted to not more than one-half that otherwise permitted through zoning. All or the remaining portion of the available development potential could be transferred to other lands located in a center. For example, if the land is zoned for one home per three acres, only one home per six acres could be actually developed on that tract. For a thirty acre tract of land, ten homes would be permitted through zoning but only five could be built on the tract. The remaining five credits, or all ten, would have value as credits needed by developers wishing to build in an identified receiving area (center).
- In order for the credits to be in demand, rezoning in the receiving areas would have to be undertaken to lower the as-of-right densities while retaining desired densities achievable with purchased credits. For example, a center would have an as-of-right density of one home per three acres but, with sewer and water service, could allow up to twenty-five units per acre. The difference would become available through purchase of development rights from the environs.
- Where a developer agrees to provide additional open space through cluster development in either the environs or the center, the total yield would be determined by land divided by density after removal of areas of water bodies and wetlands, and excessive slopes. Where a cluster is not proposed, a qualifying map, taking into account all ordinance mandated design criteria, including slopes, setbacks from wetlands and water bodies would be required in order to determine lot yield and would yield fewer lots or units than would the cluster option.

For example:

A one hundred acre tract, lying in a four acre zone with a twenty-five percent open space requirement contains a three acre pond, nine acres of wetlands and sixteen acres of steep slopes. With the cluster option, this would yield eighteen lots. These would then be laid out on the site.

As a rule, the distribution of site constraints such as slopes and water features makes it impossible to get the same lot yield through conformance with typical ordinance standards and avoidance of the wetlands, slopes, etc. This is the financial incentive to a prospective developer to design a project creatively. In some cases a density bonus would be offered for a design providing a greater percentage of open space than required or connecting the open space to other preserved, adjacent lands.

Once the cluster lot yield has been determined, the layout would have to respect ordinance limitations such as slopes and buffers but would result in a development whose

density would be limited more by water supply, waste treatment and disposal technology than site constraints. If this approach were used on a sending tract and the municipal planning board found the proposal consistent with municipal objectives, the increase in unit count could be transferred via TDR. The financial incentive to sell development rights should not be diminished unless the tract is not suitable for cluster development.

Regional Transfer of Development Credits/Rights

To this point, the discussion of TDR has remained focused on lands wholly within a municipality. Where densities are compatible and municipal objectives converge, the transfer of credits from one town to another would provide another dimension to development in the County. This would be more complex, requiring that property taxes or other means to fund the services for new residents and businesses be transferred with the credits.

Nonresidential Transfer of Development Rights

In addition to residential transfer of development rights, it is important to also attempt to provide some protection to those whose land use zoning is nonresidential. One of the goals of this plan is to discourage strip commercial development. As the development which would otherwise be developed as strips is to be relocated into the center, a non-residential transfer value, based on the discharge equivalents (one home equals 1,800 sq. ft of nonresidential space) should also be put in place. Here, too, new commercial development, beyond some base density in a center, would require the purchase of credits from landowners in the environs. The mechanism to create a demand for credits would be to rezone an entire municipality or a group of municipalities for some density lower than the base carrying capacity or infrastructure supported capacity. Zoning in the environs (sending area) would permit the construction of no more than one-half the permitted density. Receiving areas (centers) would be zoned to permit a low base level density but would require construction at suburban and urban densities. In the absence of infrastructure, modest transfers would be permitted, although they would be limited by carrying capacity.

Utilizing the above will provide decision-makers with a potentially useful tool to set land use policy both for prospective land users and for existing development. A substantial effort should also be made to encourage the establishment of small businesses. One of the strengths of the County is a large, well educated workforce, in many cases overqualified for the relatively low paying retail and recreational jobs which predominate in the County. Incubator projects, and carefully defined home businesses fit well within the low intensity, rural agricultural landscape. The rapid advances in technology permit many to telecommute and generally operate at remote locations with the positive effect of reducing rush hour traffic and a measurable improvement in the quality of life. In municipalities which permit home businesses, individual entrepreneurs are a vital element in the economic life of the community.

Rural/Agricultural Landscape

This is the area most affected by sprawl. Other than in the lake communities, residential development has been scattered throughout the County with non-residential development

constructed along the major roads. Connections between residential communities and non-residential development in depth have been minimal. In the future, if the precepts of the SDRP as endorsed by this plan are followed, development will be focused in centers with far less low density scattered development outside those centers. Strategies to be employed in this landscape are:

- Provide guidelines for municipal use in redirecting development from the environs to centers.
- Encourage the establishment and expansion of mass transit options, tied to existing and proposed centers.
- Continue the County contribution to the bi-state effort to reactivate the Lackawanna cut-off and New Jersey efforts to extend and add passenger service to the New York, Susquehanna and Western railroad.
- Emphasize the multi-state importance of small scale aviation facilities.
- Continue to refine and focus the farmland preservation and open space programs in the County.
- Assist landowners and coordinate with the Natural Resources Conservation Service, the Resource Conservation and Development Program, County Board of Agriculture and County Agriculture Development Board to publicize the numerous agriculture support programs of the State.

Slopes in excess of twenty-five percent should be avoided wherever possible and disturbance of lesser slopes approached with care.

Density should be based upon both soil characteristics and available water supply as determined through on-site groundwater hydrology. The soils analysis (modified nitrate dilution model @ 5.2mg/l), suggests that an average acceptable density for residential construction is three acres per unit. This can be extrapolated to non-residential densities, using waste flows to calculate equivalent densities as follows:

A residential unit generates approximately 225 gallons per day of effluent. Using the DEP standard of 0.125 gallons per day per square foot of office space, 1800 square feet of space is the equivalent of a residential unit. Allowing for the conservatism of the DEP standards and for ease of calculation, 2,000 square feet is a reasonable equivalent. Based on this premise, 100,000 square feet of commercial space would require a land area of not less than 150 acres to avoid having a depletive effect on the ground water quantity and some effect on quality. Where other than conventional septic systems are used, these area requirements would be reduced as the treatment level increases.

Highlands

The Highlands is a physiographic region defined by geology and landform. It consists of highly resistant rock with dramatic topographic variation. As an area of particular water

resource importance, the State has proposed severe restrictions on development to meet the public purpose of water supply protection. As the legislation stands as of the date of publication of this report, the State has pre-empted the field, leaving few local initiatives available in the core protection area and voluntary participation outside the core in Vernon, Hardyston, Hamburg, Franklin, Ogdensburg, Sparta, Hopatcong, Green, and Stanhope. Strategies at the County level are limited to:

- With the regional Highlands Planning entity, coordinate local and regional planning initiatives.
- Within the limitations of the Farmland and Open Space preservation programs and in cooperation with the State Green Acres Program, provide property owners with information on alternatives to development as a means to offset the financial hardship caused by the regulations.

Traditional Centers

The preferred development form set forth in the SDRP is the center. In Sussex County, these are traditional towns, villages and hamlets. Currently, there are ten designated centers in Sussex County with perhaps eight additional centers to be considered in the future. The lion's share of County development will be steered into these centers. They will be more efficient and diverse, consuming less land for a given level of population. Strategies to support these centers are:

- Identify areas of the County with substantial carrying capacity to become new or expanded centers.
- Prepare center designs as templates for municipal consideration which emphasize pedestrian access and mixed uses.
- Work with municipalities to provide a complete range of housing opportunities within growth centers and additional housing in low growth centers in accordance with the purposes of such centers.
- Establish a Countywide housing rehabilitation program.
- Promote the use of Transfer of Development Rights (TDR) to move density from the environs into centers.
- Where appropriate, use Brownfields programs to clean up polluted sites for redevelopment.

Job Creation Centers

Job Creation Centers are nodes of development, which because of their non-residential character, do not fit the definition of a center. The SDRP provides for these nodes with the understanding that a concentration of wholesale and industrial economic development activities

is a major contributor to the regional economy, works to alleviate traffic congestion, air and water pollution, and contributes directly to the quality of life of County residents and visitors. Strategies to be followed in this landscape are:

- Expand the efforts of the County, the Economic Development Partnership, and the Chamber of Commerce to identify the economic strengths of the County, its businesses and work force.
- Locate areas with access to railroad lines or major roads within the County where economic development nodes may be created or expanded.
- Focus the outreach efforts of the Economic Development Partnership on business sectors most apt to locate or expand in Sussex County.
- Working with historic preservation and agriculture groups, widen the range of opportunities for agricultural industry.

Park and Wildlife Management Areas

Park and Wildlife Management areas occupy approximately one-third of the County. Chiefly located along the western boundary of the County in Montague, Sandyston, and Walpack Townships and in Wantage and Vernon Townships to the east, these areas contribute to the sense of openness, protection of natural resources, and encouragement of active tourism. These elements are critical to the character of the County. Strategies to be employed are:

- In concert with the State and Federal park managers, publicize the recreational opportunities available in the parks and wildlife management areas.
- With municipalities and non-profit corporations, identify wildlife corridors and green belts.
- Employ the open space systems mapping from the County Open Space and Recreation Plan to prioritize land and easement acquisition. Rank criteria by overall importance. For example, aquifer protection versus acquisition of an inholding.
- Actively participate in the Sussex County Clean Water Action Committee, Watershed Management Areas One and Two, the North Jersey Resource Conservation and Development Project, the Sussex County Water Quality Management Policy Advisory Committee, and other resource based organizations to offer educational programs to County residents and visitors.
- With assistance from the State and Federal governments, establish Gateway Information Centers to inform the public of the numerous opportunities available in the parks and wildlife management areas.
- Preserve and interpret the County's significant historic and cultural resources.
- Preserve and interpret State identified Natural Heritage Priority Sites.

- Preserve and interpret examples of the County’s rich bedrock and surficial geologic past.
- Add to external boundaries where resource protection, buffer establishment, or recreational potential is evident.
- Determine the need for recreation opportunities.
- Maintain a dialogue with municipalities with regard to specific needs at the regional level.
- Periodically update the County Open Space and Recreation Plan, drawing on sources such as the State Comprehensive Outdoor Recreation Plan.
- Analyze the character of various recreation uses in order to ensure that only low impact uses are permitted in this landscape.

The Parklands and Wildlife Management Areas Landscape Visitors Center

One third of Sussex County is comprised of the Parks and Wildlife Management Areas Landscape, with the majority being in the western quarter of the county between the Kittatinny Ridge and the Delaware River. The Sussex County Strategic Growth Plan recognizes the importance of this large landscape for both the wildlife habitat and the watershed protection it provides. Currently over twelve million visitors a year visit the Landscape and its contiguous expanded region (Warren County west of the Kittatinny ridge, and the DWNRA in PA). Unfortunately most visitors know and learn little about the Landscape, see it only from their car, and are not encouraged to linger or return. The vast potential of the Landscape to serve as an eco-tourism destination is under-rated and yet to be developed.

A natural gateway to this landscape exists where US 206 passes through Culvers Gap. It is here where the visitor passes from suburbanizing New Jersey to the wilds of a by gone era. It is also here, adjacent to the Appalachian Trail, that we recommend a state of the art Parklands and Fish and Wildlife Management Area Visitors Center be located. With the State of New Jersey taking the lead, the center should be established and managed as a multi-public agency (National Park Service, NJDEP, NJ Travel and Tourism) and to a lesser degree private enterprise partnership. The visitors’ center should include areas for limited interpretive displays, a multi-purpose room for meetings or interpretive talks, a combination gift and snack shop, administrative offices, restrooms, a rental shower facility for Appalachian Trail hikers, and above all a large and staffed public information counter and display area.

The purpose of the center would be to help ensure that the visitor has a rewarding and enjoyable outdoor experience, is enticed to linger, is encouraged to return, and spreads the word that this is a great place to visit. Toward this end the center would provide the following:

- A trained staff (both agency employees and volunteers) that would disseminate information on the various management units in the landscape to include the Appalachian Trail.
- User specific information-where can I fish, where can I purchase my

licenses and bait, where can I rent a boat, and when all else fails where can I purchase a fish dinner?

- Public education programs-How can I make my visit to bear country safe for myself, my pet, and the bear? Ticks and what you need to know! Etc.
- Environmental condition updates-snow cover, Delaware River water levels, stage of fall leaf coloration, rare bird alerts, stocking schedules, where the shad are, etc.
- Interest specific tours (these would probably cross over into adjoining Landscapes)-scenic photo ops, geology, historic sites, wild flowers in bloom, waterfalls, etc.
- Seasonal themes with directions to related events- fun on snow and ice, late winter cabin fever, spring fishing, early summer picnic spots, fun in the water, early fall harvest, fall foliage tours, the American tradition of hunting, Christmas in the country, etc.
- Related links to the private sector-outdoor pursuits instructors, guide services, rental shops, overnight accommodations, restaurants, agricultural markets, etc.
- An interpretive center exploring the varied opportunities for outdoor education and catering to school groups, families, and anyone interested in the environment.

Lake Communities

The lake communities of Sussex County are a particularly important part of the neighborhood composition of the County. Generally established as summer recreation areas, they have evolved into year round residential communities. As communities developed for only part time occupancy, their initial impact on soil and water resources was low. However, as they became increasingly popular as year round residential communities, their relatively high density (5-10 units per acre) began to have a greater and greater impact, particularly on the lake around which the community had grown.

In response to the impact on such lakes as Hopatcong, regional sewer hook ups have been initiated. Others, e.g. Mohawk, Culver, and Cranberry have instituted septic management plans and regulations. Strategies best suited to these communities are:

- Educate residents of the need to properly maintain on site septic systems.
- Publicize the availability of new denitrification technology for on-site waste treatment.
- Secure a Countywide Treatment Works Approval from the NJDEP to allow homeowners and businesses to utilize this and other DEP approved technology with local approvals.
- Disseminate model ordinances restricting development on small lots to proportions reflected in the existing neighborhood.

Policies and needs that should be considered are:

- Repair and/or upgrade of dams including the preparation of operation and maintenance manuals and emergency response plans where required (a critical need is restoration of low-cost funding from the State to address this public-safety issue);
- Institution of septic management programs including support from Township-governing Councils and Boards to approve Model Ordinances that address septic issues. This is essential; maintenance of septic systems is a critical element in avoiding the most egregious pollution impact;
- Rezoning and changes to associated bulk standards for purposes of controlling new development to densities that are sustainable, including attention to the avoidance of environmentally sensitive areas. Existing development would be grandfathered to allow for minor improvements. Such improvements should be limited to avoid increasing the intensity of use and associated increase in effluent discharge. Tear-downs@ for the purpose of building larger homes would be permitted if a conforming septic system is constructed at the time of alteration. In the absence of central wastewater treatment, new development should be permitted at very low densities (lot average: 5 or more acres plus per unit).
- Development of stormwater management plans for the control and reduction of non-point sources of pollution and minimization of soil erosion
- Restoration and maintenance of lake water quality including compliance with NJDEP's surface water and clean lakes quality standards, particularly in those instances where a lake's overflow serves as the headwaters for a river, stream, or creek.
- Minimization of the adverse impact of further area development on lake water quality (particularly in instances where wetlands are disturbed, soils are found to be marginally acceptable for septic systems, trees are felled and steep slopes are disturbed; studies show that fully developed, clustered residential areas around lakes can contribute more than tenfold the quantity of nutrients [phosphorous] contributed by forest coverage over the same time period and equivalent land use acreage)
- Monitoring and control of fecal coliform (may require implementation of "Best Management Practices and Model Ordinances")
- Protection and prevention of contamination of potable supply wells
- Reduction and control of algae (suspended algae [phytoplankton], and attached algae [periphyton]. Note: If phytoplankton reaches a critical density, the water will become noticeably green or brown and will have low transparency; this type of algae has the ability to form "nuisance blooms" and/or noxious conditions in eutrophic lakes);

- The establishment of design standards including appropriate ordinances designed to 1) maintain the rural character and identity and 2) preserve scenic views and scenic quality of the communities (Reference: Proposed changes to the 2004 Byram Master Plan)
- Increase awareness of Lake Community members and local governing bodies in order to promote effective leadership, support for proposed ordinances and Onsite Septic Management Systems, and support for adequate funding to accomplish the developed programs and necessary projects that are necessary to protect Sussex County's Lake Communities.
- Rezone for purposes of controlling new development to densities which are sustainable. Existing development would be Agrandfathered@ to allow for minor improvements. These should be limited to avoid increasing the intensity of use and associated increase in effluent discharge. Tear-downs for the purpose of building larger homes would be permitted only if a conforming septic system is constructed at the time of alteration. In the absence of central wastewater treatment, any new development should only be permitted at very low densities (5 acres plus).
- Investigate the feasibility of central waste treatment. Many, if not most of these communities are in areas of poor soil and shallow depths to bedrock. This limits the potential for discharge of treated waste to groundwater. Where eutrophication is severe and/or water quality is substantially impaired, on-site treatment technology, although difficult in areas of poor or limited permeability may prove to be economically appropriate.
- Where central waste water treatment facilities are not available, area and municipality wide septic management districts should be organized. These have the potential to identify existing malfunctions and to avoid the occurrence of others through regular inspection and maintenance of individual on-site septic facilities.

CONSISTENCY WITH THE STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The State Development and Redevelopment Plan in Sussex County

The State Development and Redevelopment Plan (SDRP) classified nearly all of Sussex County in Planning Areas 4, 4B and 5. Planning Area 4, the Rural Planning Area, is designed to highlight an areas' agricultural potential. This is the location of New Jersey's prime farmland and agricultural industry. Policies outlined for PA 4 include keeping the land in large, contiguous masses of farmland while promoting agriculture as an industry and directing new growth into existing or planned centers where infrastructure is or will be located. Planning Area 4B has these same policies with an environmental overlay. The environs of PA 4 or 4B are generally to remain in open space and agricultural use and not to develop an urban or suburban character. Planning Area 5 is the Environmentally Sensitive Area (without the Agricultural component). PA 5 comprises large contiguous parcels with whole ecosystems that can, and should, be protected. It is a location containing areas of important flora and fauna, with endangered and/or threatened species, scenic vistas, wetlands and areas of importance for water resources, prime forested areas, and other areas with significant topographical, geological or ecological features. This encompasses all of Sussex County except for centers and a small portion of Stanhope designated as Planning Area 2. Planning Area 5 is designated as the location to support and promote the recreational and tourism industries.

In order to compare the objectives of the Strategic Growth Plan and the State Development and Redevelopment Plan, we revisit the SDRP Goals and Policies found on pages 176 through 179 of this document.

Goal #1: Revitalize the State's Cities and Towns

Policy: Urban Revitalization

Prepare strategic revitalization plans, neighborhood empowerment plans and urban complex strategic revitalization plans that promote revitalization, economic development and infrastructure investments, coordinate revitalization planning among organizations and governments, support housing programs and adaptive reuse, improve access to waterfront areas, public open space and parks, and develop human resources with investments in public health, education, work force readiness and public safety in cities and towns.

The SGP suggests that the patterns of development which have occurred over the past thirty years be radically changed.

- Center oriented development is to be the predominant form.
- Revitalization plans including brownfields (e.g. Newton, Hardyston) are being developed in cooperation with County and State agencies..
- Designated and proposed centers are programmed for central water and wastewater treatment infrastructure.
- Affordable and reachable housing is to be located in centers
- Centers should follow recognized design standards, emphasizing central places and a sense of community.

- Municipalities should develop revitalization plans as has already begun (see Sussex Borough). With State “Main Street” funding improvements, new life can be brought back to older centers (See Franklin and Hardyston grant application).
- Adaptive reuse of existing buildings will continue to reverse blight.

Goal #2: Conserve the State’s Natural Resources and Systems

Policy: Water Resources

Protect and enhance water resources through coordinated planning efforts aimed at reducing sources of pollution and other adverse effects of development, encouraging designs in hazard-free areas that will protect the natural function of stream and wetland systems, and optimizing sustainable resource use.

- Specific policies have been developed for the Rural/Agricultural, Job Creation Center, Traditional Center, and Lake Community landscapes which focus efforts to locate development with due consideration of water quality. Where development is to occur, restrictions on the discharge and storage of hazardous materials will offset potential environmental impact.
- The SGP contains an analysis of potential build out based on existing development coupled with potential construction, based on current zoning as it applies to buildable lands. This will provide municipalities with a perspective on the future.
- In concert with existing state regulation, buffering, best management practices, and septic management will contribute to amelioration of existing degraded conditions.
- Watershed groups such as the lake Musconetcong Regional Planning Board, and the Lake Hopatcong Commission, together with the Sussex County “208” Water Quality Agency and Watershed Management Areas will continue to concentrate on achieving appropriate reductions in pollutant loading of lakes and other waterways.

Policy: Special Resource Areas

Recognize an area or region with unique characteristics or resources of statewide importance and establish a receptive environment for regional planning efforts. The Highlands region has been recognized as the first Special Resource Area in New Jersey.

The Highlands has been recognized as a landscape in its own right. The SGP offers concrete proposals for increasing resource protection and public appreciation of the resource while safeguarding landowner equity through TDR. Greater detail will be offered following adoption of the legislation and preparation of the Highlands Master Plan.

Goal #3: Promote Beneficial Economic Growth, Development and Renewal for All Residents of New Jersey

Policy: Economic Development

Promote beneficial economic growth and improve the quality of life and standard of living for New Jersey residents by building upon strategic economic and geographic positions,

targeting areas of critical capital spending to retain and expand existing businesses, fostering modern techniques to enhance the existing economic base, encouraging the development of new enterprises, advancing the growth of green businesses, elevating work force skills, and encouraging sustainable economic growth in locations and ways that are fiscally and ecologically sound.

- The SGP proposes expansion of existing Job Creation Centers (Nodes) and creation of a limited number of additional nodes where larger scale mixed commercial and industrial uses should be concentrated.
- The SGP recommends the elimination of strip commercial development with non-residential TDR moving
- Siting centers in areas best suited to accommodate additional dense development promotes a higher level of efficiency and environmental protection.
- The County farmland and open space preservation strategy, supported by public referendum, is to continue the purchase of development rights from willing property owners and to offer whatever incentives may be available through leveraging funds from other state, federal, or municipal programs to achieve the maximum protection of farmlands. In addition, the County is working to emphasize the four season availability of recreation (skiing, golfing, hiking, swimming, etc.) in the County.

Farmland preservation is only the first part of the continuing need to support agriculture as an industry. The County has long had an active role in promoting the business of agriculture through value added and agri-tourism programs. Natural resource based business and agriculture/recreation are activities particularly favored by the State Planning Commission in northwest New Jersey. These business ventures are both supportive of the character of the County and will contribute to the its economic base.

In conjunction with the open space, parklands and farmlands initiatives, Sussex County is working to market itself as a “Four Season Tourism Destination”. This will not only highlight the existing dedicated open space in our seven State Parks, one State Forest, one National Wildlife Refuge, one National Recreation Area, and over a dozen State Wildlife Management Areas but the active recreational pursuits that one may enjoy while visiting our County.

If recreation and tourism are to be effectively promoted as an important part of the Sussex County economy, attractive to the larger tri-state region, infrastructure must exist, or be provided, for people to visit and enjoy these amenities. This does not appear to be recognized within the context of the existing SDRP. Recreation and tourism are not the same as preserving land in passive open space that does not permit public access. This is not to say that both of these options cannot exist within the County; they certainly can, but there must be a balance, again, between economic development of recreational lands and “pure” open space parcels.

The largest stumbling block to date is the lack of infrastructure that would make our location palatable to a tourist. Our roads, federal, state and local, as discussed in the Circulation Element, pose logistical problems with getting to the County in a timely manner. Without traffic delays, we are a mere 1 1/4 hours from New York City - a huge metropolitan area with many disposable tourist dollars that can be spent here. However, public transportation options are lacking to get people from the city to the County. Or, if people drive, our limited highway system, and the corresponding traffic tie-ups, will make a return trip less likely. Additionally, the County has limited motel/hotel facilities in the more rural areas of our County. These are the

areas where tourists would prefer to stay to be closer to the activities they have come here to pursue. The SDRP could serve as the support for innovative service technologies that protect the environmental integrity of our area and make it feasible to offer modern visitor services.

Policy: Agriculture

Promote and preserve the agricultural industry and retain farmland by coordinating planning and innovative land conservation techniques to protect agricultural viability while accommodating beneficial development and economic growth necessary to enhance agricultural vitality and by educating residents on the benefits and the special needs of agriculture.

The County has been actively engaged in the preservation of farmland and encouragement of agricultural industries generally. Approximately 10,000 acres of farmland are or will be permanently protected.

The County has increased its efforts to promote agriculture and the public appreciation of the wide variety of agricultural activities in the County through its agritourism efforts.

The plan encourages location of agricultural industry (value added) in proximity to agricultural operations as the sole small scale economic expansion in the environs or Rural/Agricultural landscape.

Policy: Equity

It is the position of the State Planning Commission that the State Plan should neither be used in a manner that places an inequitable burden on any one group of citizens nor should it be used as a justification for public actions that have the effect of diminishing equity. It is also the position of the Commission that the achievement, protection and maintenance of equity be a major objective in public policy decisions.

Goal #4: Protect the Environment, Prevent and Clean Up Pollution

Policy: Energy Resources

Ensure adequate energy resources through conservation, facility modernization, renewable energy and cogeneration; to continue economic growth while protecting the environment; and to modify energy consumption patterns to capitalize on renewable, domestic energy supplies rather than virgin extraction and imports.

Adoption of the center based development pattern will lead to greater efficiencies in service provision by utilities and increase the potential for mass transit service.

Policy: Waste Management, Recycling and Brownfields

Promote recycling and source reduction through product design and materials management and by coordinating and supporting legislative, planning and facility development efforts regarding solid and hazardous waste treatment, storage and disposal.

Capitalize on opportunities provided by Brownfield sites through coordinated planning, strategic marketing and priority redevelopment of these sites.

The SGP actively promotes the remediation of brownfields sites as a means of land reclamation and community revitalization.

Policy: Air Resources

Reduce air pollution by promoting development patterns that reduce both mobile and stationary sources of pollution, promoting the use of alternative modes of transportation, and supporting clean, renewable fuels and efficient transportation systems.

- The SGP advocates development in centers as a means to reduce overall dependency on the single occupant motor vehicle for movement of people and goods. This will reduce pollution from motor vehicles by reducing trips by motor vehicle in a pedestrian-oriented environment.
- Center development will give rise to the required critical mass needed to economically justify mass transit facilities.

Goal #5: Provide Adequate Public Facilities and Services at a Reasonable Cost

Policy: Transportation

Improve transportation systems by coordinating transportation and land-use planning; integrating transportation systems; developing and enhancing alternative modes of transportation; improving management structures and techniques; and utilizing transportation as an economic development tool.

- Policies laid out in the Plan incorporate the review of current system capacity and projected build out. With the analysis of zoned build out, potential traffic impact may be estimated and the ability of the circulation system to absorb the impact evaluated.
- Transit oriented development will provide a strong impetus to economic development.

Policy: Infrastructure Investments

Provide infrastructure and related services more efficiently by investing in infrastructure to guide growth, managing demand and supply, restoring systems in distressed areas, maintaining existing infrastructure investments, designing multi-use school facilities to serve as centers of community, creating more compact settlement patterns in appropriate locations in suburban and rural areas, and timing and sequencing the maintenance of capital facilities service levels with development throughout the state.

- The Plan makes it clear that, in order for the centers concept to achieve the desired results, existing and proposed infrastructure must be funded and constructed expeditiously.
- Regional infrastructure planning of sewer service areas has been actively in process

through the County Wastewater Management Plan.

- As there are many areas in the County which do not lend themselves to large scale infrastructure, a heavy emphasis is placed on the general availability of alternative septic technology to remediate conditions in smaller lake communities.
- Proper sequencing of infrastructure installation has proven to be a valuable means of growth management. This will be of particular use in new centers.

Goal #6: Provide Adequate Housing at a Reasonable Cost

Policy: Housing

Preserve and expand the supply of safe, decent and reasonably priced housing by balancing land uses, housing types and housing costs and by improving access between jobs and housing. Promote low- and moderate-income and affordable housing through code enforcement, housing subsidies, community-wide housing approaches and coordinated efforts with the New Jersey Council on Affordable Housing.

Production and rehabilitation of affordable and reachable housing is one of the top priorities of the County. We are acutely aware of the shortfall in housing availability for all but the most affluent sectors of the County population. For traditional Affordable Housing, the rules and incentives of the Council on Affordable Housing have proven to be somewhat effective, at least in the rehabilitation of existing homes and encouragement of group home opportunities. Notwithstanding this fact, many municipalities in the County have not petitioned for or received Substantive Certification, leaving them in violation of the NJ Fair Housing Act.

Nearly all subgroups of the county population are in need of affirmative programs designed to encourage the production of a range of housing types in a broad range of affordability. This is not an instance where government should be on the sidelines. When valuable people must leave the County to find affordable housing, the business, cultural and social fabric of the County is diminished. Those who leave but retain their employment cannot be as productive as those with short, pleasant commutes. Those who leave and find employment elsewhere cost the County opportunities for business expansion, volunteer resources, and reduce the bottom line productivity of the County. In addition to those of low or moderate income as defined by COAH, the middle income population must be able to remain in the County through construction of “reachable” housing.

Policy: Design

Mix uses and activities as closely and as thoroughly as possible; develop, adopt and implement design guidelines; create spatially defined, visually appealing and functionally efficient places in ways that establish an identity; design circulation systems to promote connectivity; maintain an appropriate scale in the built environment; and redesign areas of sprawl.

The center design guidelines, excerpted from Anton Nelessen, “Visions for A New American Dream”, are wholly consistent with the thrust of this policy. The SGP sets forth the specific objective that development take place, for the most part, in mixed use centers.

Goal #7: Preserve and Enhance Areas with Historic, Cultural, Scenic, Open Space and Recreational Value

Policy: Open Lands and Natural Systems

Protect biological diversity through preservation and restoration of contiguous open spaces and connecting corridors; manage public land and provide incentives for private land management to protect scenic qualities, forests and water resources; and manage the character and nature of development for the protection of wildlife habitat, critical slope areas, water resources, and for the provision of adequate public access to a variety of recreational opportunities.

The Strategic Growth Plan places heavy emphasis on the natural resource base, its preservation and management. The County Open Space Plan and Farmland Preservation Plan each contribute to the overall County strategy of open space protection, connection, as well as directing the design and character of all proposed development and redevelopment to protect wildlife habitat, critical environmental features, and to encourage public awareness of their importance through formal access and interpretive centers.

Policy: Historic, Cultural and Scenic Resources

Protect, enhance, and where appropriate rehabilitate historic, cultural and scenic resources by identifying, evaluating and registering significant historic, cultural and scenic landscapes, districts, structures, buildings, objects and sites and ensuring that new growth and development is compatible with historic, cultural and scenic values.

The County has spent millions of dollars in support of the retention of open space, farmland, and preservation of cultural and historic resources. The SGP will be an effective means to further this objective in setting out the importance of this effort to the County of Sussex.

Goal #8: Ensure Sound and Integrated Planning and Implementation Statewide

Policy: Comprehensive Planning

Promote planning for the public’s benefit, and with strong public participation, by enhancing planning capacity at all levels of government, using capacity-based planning and Plan Endorsement to guide the location and pattern of growth and promoting cooperation and coordination among counties, municipalities, state, interstate and federal agencies.

Sussex County has the distinction of having more designated centers than any other county in the state. This, coupled with the affirmative policy support in the SGP, is evidence that the County is interested in implementation of the SDRP policies, not just their recitation.

Continuing involvement, including an application for Initial Plan Endorsement and Advanced Plan Endorsement will reiterate this position.

Policy: Public Investment Priorities

It is the intent of the State Plan that the full amount of growth projected for the state should be accommodated. Plan Strategies recommend guiding this growth to Centers and other areas identified within Endorsed Plans where infrastructure exists or is planned and where it can be provided efficiently, either with private or public dollars. (Designated Centers are included in the category of communities with Endorsed Plans.) Public investment priorities guide the investment of public dollars to support and carry out these Plan Strategies.

CONSISTENCY WITH NJDOT SMART GROWTH CRITERIA AND SDRP POLICIES

Sussex County realizes the importance of incorporating Smart Growth strategies into all planning efforts and policies. Of these, the NJ Department of Transportation has developed a specific checklist governing State transportation planning efforts and projects. This comprehensive checklist encourages Counties and municipalities to promote and support development that is based on sensible land use, transportation infrastructure and economic analysis. This is one of the primary purposes of the County's Strategic Growth Plan, and the accompanying multi-modal transportation system improvements contained in this section.

In developing and planning transportation system improvements, Sussex County will strive to achieve the overall goal set forth in the State of New Jersey's Development and Redevelopment Plan (March 2001), which is to encourage development, redevelopment and economic growth in locations that are well situated with respect to present or anticipated public services or facilities and to discourage development where it may impair or destroy natural resources or environmental qualities, and to reduce sprawl.

In addition, the County supports many of the NJDOT Smart Growth Consistency Criteria in its transportation planning efforts including the Smart Growth Consistency Criteria Checklist developed by the DOT and included as Appendix F.

**New Jersey Department of Transportation
Smart Growth Consistency Criteria**

Does the project in Sussex County

- Occur in an already developed area?
- Avoid fragmenting open space?
- Minimize land consumption?
- Encourage use of convenient and accessible public transit (where or when available)?
- Create a mix of residential and commercial?
- Promote safe walking?
- Support the preservation of open space and/or farmland?
- Create a range of housing choices?
- Avoid additional infrastructure costs as much as possible?
- Support or revitalize an existing or proposed center?
- Support jobs in targeted areas?
- Improve environmental conditions in the area?
- Support best watershed management practices?
- All criteria above may not be relevant to every County project.

Smart Growth Project Checklist Concepts

Developed Area - An area that is improved with structures usually with public or private water/sewage facilities or unimproved land that has been used for resource extraction or landfill.

Fragmented Open Space - Large tracts of undeveloped land which have become segmented as a result of development or roadways and/or utility infrastructure resulting in areas too small to effectively support wildlife or sufficient aquifer recharge.

Minimize Land Consumption - Building mixed use and compact residential and non-residential developments on small lots (e.g. homes on 1/4 acre or less) in order to preserve more open space.

Convenient Access to Public Transit - Positioning new residential and non-residential development within 1/4 mile of public transportation options - that will be developed such as the Lackawanna Cut-Off Roseville Road Station Site.

Range of Housing Choices - Making available a variety of housing types and forms within each community, based on local and regional affordability needs as well as consumer demand, which would include - single homes, town homes, condominiums and apartments.

Additional Infrastructure Costs - Any costs created as the direct or indirect result of new residential or non-residential development (e.g. new sewer lines, water lines, roads, schools) on existing residences, businesses or local governments.

The County also supports many of the NJDOT Policies for SDRP Consistency during the planning and development of transportation projects that are applicable to the County including:

Policy - Coordinated Transportation Planning

- Policy 1 - Transportation Maintenance and Repair - The maintenance and repair of the existing transportation network is the highest priority.
- Policy 2 - Public Transportation Priorities - Public transit funds should be invested in the following areas beyond preservation of the existing network:
 - Improvements that provide greater accessibility to rail, bus, and ferry transit stations and centers from within and outside the State. (Such as the Lackawanna Cut-Off Rail Project)
 - Improvements that promote system usage for intrastate trips, especially realizing the potential of the major transfer facilities and connecting the rail system to important in-state traffic generators.
 - Improvements that foster mobility within developed areas and that link neighborhoods; (for example, intra County transit).
 - Improvements that link redevelopment (and new development) to existing and planned mass transit facilities.

- Connect developed areas that are under-served by mass transit.
- Promote development that is conducive to mass transit services.
- Expansions of fixed rail networks that, where feasible, complete coverage to all significant corridors in locations and ways that support compact development and redevelopment. (Such as the Lackawanna Cut-Off and the NYS&W Passenger Rail Projects)

Capacity that permits travel conveniently and comfortably to major centers adjacent to the State.

- Policy 3 - Coordination of Transportation Planning Among Public, Quasi-Public and Private Agencies - Improve the coordination and integration of transportation planning among the relevant public, quasi-public, and private transportation interests in New Jersey, including the metropolitan planning organizations, bi-state authorities, toll-road authorities, commissions, and coordination between adjacent and Inter-related counties such as the Five County Coalition (FCC). Transportation planning coordination should also be improved through the provisions of the federal Transportation Equity Act for the 21st Century, including Metropolitan Planning Organization Transportation Improvement Plan process.
- Policy 4 - Integration of Land-Use and Transportation Planning - Establish a working partnership between transportation agencies; municipal, County, and regional governments; and the private development community to strengthen the linkages between land-use planning and transportation planning for all modes of transportation including mass transit, highways, rail, aviation, passenger ferry service, and port facilities. Transportation system improvements and good land-use planning practices must be mutually supportive. Coordinate and harmonize local, state, and regional infrastructure investment plans and programs with local land-use plans to achieve the following objectives:

Reduce consumption of land and increase the efficiency of infrastructure.

- Support public transportation systems and other alternatives to the automobile.
- Reduce total vehicle miles of travel.
- Reduce the overall consumption of energy resources for transportation purposes.

Policy 5 - Transportation and Environmental Resource Protection - Coordinate transportation planning and project development with environmental planning through a capital planning process. Before programming for construction, evaluate the direct, indirect, and cumulative impacts of installing transportation improvements and of the development that these improvements may support or induce to ensure that they accommodate and protect sensitive environmental resources.

Policy 6 - Transportation and Air Quality - Coordinate transportation planning and project development with the State Implementation Plan to attain the National Ambient

Air Quality Standards within the time frame set forth by the Clean Air Act and the greenhouse gas emission reduction targets of the New Jersey Department of Environmental Protection.

Policy 7 - Transportation and Energy Conservation - Reduce the consumption of energy resources for transportation purposes by:

- Reducing the total vehicle miles traveled through efficient land development patterns;
 - Using public and alternative transportation systems; and
 - Encouraging the development of higher mileage vehicles.
- Policy 8 - Transportation and Aesthetics - Incorporate aesthetic values in capital planning, design, and maintenance of transportation systems and corridors,
- Policy 9 - Transportation and Context-Sensitive Design - Promote flexible transportation design standards and flexible application of standards that take into consideration the needs of people and the design and natural characteristics of adjacent areas.

Policy - Protection of Transportation Investment.

- Policy 10 - Unused and Abandoned Transportation Rights-of-Way - Protect appropriate rights-of-way that may serve future transportation or public purpose needs (for example, where rail service has been discontinued or land has been acquired for projects that were later abandoned). Ensure that neighboring land uses are compatible with potential future uses for rights-of-way.
- Policy 11 - Aviation Facilities - Preserve and protect New Jersey's public use aeronautical facilities to maintain statewide access to the global air transportation network. Enhance those facilities for goods and people to maintain the viability of the airport to meet its role in the transportation system and, where appropriate, to act as a stimulus for the regional economy. Provide adequate land-use management for those areas immediately surrounding public use airports through air safety zones, master plans, capital plans, official maps, and development regulations.

Transportation Systems Management

- Policy 12 - Transportation Systems Integration - Complete intra- and intermodal transportation linkages and facilities to ensure that the various systems work together as a unified, integrated, comprehensive, and efficient network.
- Policy 13 - Mobility and Access - Emphasize the movement of more people rather than the movement of more vehicles and enhance access to employment, goods, services, and information. Promote greater use of and invest in public transportation, alternative transit modes (for example, car and van pooling), organization arrangements (for example,

- transportation management associations, such as Trans Options) bicycling and pedestrian design, before increasing automobile-related system capacity.
- Policy 14 - Efficient Utilization of Capacity - Efficiently manage the existing transportation network. Employ or provide for both capital and operational improvements the latest available technology and design techniques where they can efficiently increase the capacity or reduce costs of all forms of existing and planned transportation infrastructure and services.
 - Policy 15 - Provision of Public Transportation Services - Maintain or expand public transportation services to areas of existing and planned high density development that provide opportunities to exploit the efficiencies of mass transportation systems in ways that support development and redevelopment. Promote the use of high-occupancy vehicles and bicycle and pedestrian facilities in all development where feasible.
 - Policy 16 - Transportation Demand Management Strategies - Promote market-based incentives to encourage transit, intercept parking, car-pooling, park and ride lots, telecommuting, flexible hours, and other travel demand alternatives that utilize existing capacity Specific demand-side programs include cashing out of free parking, implementing peak and off-peak pricing on roads, automobile insurance discounts for transit riders, and providing transit vouchers.
 - Policy 17 - Transportation Supply Management Strategies - Alleviate congestion on the existing infrastructure system by managing the supply of transportation services. Specific supply-side programs that should be considered include electric toll collection, intelligent transportation systems, highway access management plans, transportation improvement and development districts, and employer or other shuttle pickups at transit stations, (which will be necessary for the proposed passenger rail projects in Sussex County).
 - Policy 18 - Highway Access Management - Develop and adhere to highway access management plans and programs that protect system capacity and provide for safe travel. Control local access to highway capacity through plans, regulations, and negotiated agreements between appropriate levels of government in ways that ensure that regional needs, adequate system capacity, and public health and safety are protected and minimize sprawl. Encourage parallel service roads, shared driveways and parking, and pedestrian access between neighboring uses.
 - Policy 19 - Regional Local Traffic Patterns - Separate regional through traffic from local traffic by way of limited-access bypass roads - planned to minimize sprawl and adverse impacts on adjacent communities - where alternative circulation patterns using existing roads are not feasible.
 - Policy 20 - Transportation Planning as a Redevelopment and Development Tool - Employ transportation planning, facilities, and services as development and redevelopment tools to shape growth and leverage economic development opportunities.

- Policy 21 - Labor Markets - Use appropriate transportation connections to link places of residence with those areas of growing employment opportunities identified in the State Plan.
- Policy 22 - Recreational and Tourism Travel - Promote travel and tourism in New Jersey by making appropriate transportation investments that consider seasonal demands, enhance mobility and accessibility through infrastructure improvements, access management and demand management strategies, and protect the resources on which recreation and tourism are dependent.
- Policy 23 - Goods Movement - Enhance the movement of goods throughout New Jersey by investing in a comprehensive network for regional and interstate commerce, including, where appropriate:
 - Developing intermodal facilities linking seaports, airports, railroads, and highways;
 - Encouraging movement of goods by rail to and from the ports and elsewhere, while protecting current and future passenger use on available rights-of-way;
 - Providing exclusive rights-of-way congestion bypasses for local port and distribution activities and regional through movement of trucks.
- Policy 24 - Traffic Calming - Encourage the use of traffic calming techniques to enhance pedestrian and bicycle circulation and safety within compact communities and other locations where local travel and land access are a higher priority than regional travel.

General Planning Policies Related to Transportation

- Policy A - Indicators, Targets, and Reporting - Include indicators and targets in municipal, County, regional, specialized, and state agency plans, and provide periodic reporting on progress towards meeting the goals of these plans.
- Policy B - Disaster Planning and Mitigation - Coordinate growth-management plans and policies with hazard mitigation and emergency response planning.
- Policy C - Comprehensive Master Plans, Regulations, and Programs - Adopt and implement comprehensive municipal master plans, regulations, and programs that are consistent with the State Plan and include all pertinent elements authorized under the Municipal Land-Use Law.
- Policy D - County or Multi-County Plans, Regulations, and Programs - Adopt and implement comprehensive plans, regulations, and programs on a County or multi-County basis consistent with the State Plan, in partnership with the affected municipalities. Such as has been done with the Five County Coalition.

- Policy E - Expeditious Regulatory Process - Regulations that create uncertainty, lengthy, and duplicative review processes, and add cost without concomitant public benefit should be modified to achieve their purpose or eliminated.
- Policy F - Increased Public Understanding and Participation - Maximize public understanding of and participation in local, regional, and state planning, regulation, and infrastructure investment programs.
- Policy G - Sharing Facilities - Use the capacity of school facilities, roads, transit, parks, and other necessary infrastructure in ways that permit maximum use of non-automotive transport; chaining of shopping and other trips with school trips; and sharing of parking, recreational, and other public facilities. DWGNRA Park and Ride (example).
 - A System Preservation/Fix It First policy for road and bridge improvement projects;
 - Developing commuter rail service to Sussex County
 - Increasing commuter bus service to the County;
 - Increasing intra-County bus service;
 - Developing highway corridor level/Transportation System Management (TSM) projects to optimize/enhance system performance;
 - Developing and supporting Intelligent Transportation System (ITS) improvements - such as computerized signal system projects
 - Developing, supporting, and promoting safe bicycle and pedestrian projects in the County, particularly rail-trails,
 - Supporting car/van pool programs, ridesharing and transportation demand management programs
 - Developing and supporting increased road capacity projects when and where necessary in the County.